

| PROJECT         | CUSTOMER | TRAIN     |
|-----------------|----------|-----------|
| Xtrapolis-PRASA | PRASA    | 254 – TFS |

RTR Train Functional Static Testing TS254 Report  
GIB0000007371



|           | CREATED       | VERIFIED       | APPROVED        | DISTRIBUTION                                                                                                                                                        |
|-----------|---------------|----------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | Vusumuzi ZULU | Sifiso LUKHELE | Kgomotso NKOANA | Confidentiality Category<br><i>Restricted</i> <i>Project</i> <i>Normal</i><br><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |
| Date      | 30/10/2024    | 30/10/2024     | 30/10/2024      | Control Category<br><i>Controlled</i> <i>Not Controlled</i><br><input checked="" type="checkbox"/> <input type="checkbox"/>                                         |
| Signature |               |                |                 | Language<br><b>EN</b>                                                                                                                                               |

This report has been automatically generated from TES version 1

## Table of modifications

| Rev | Date       | Modifications Content | Writer        |
|-----|------------|-----------------------|---------------|
| A0  | 30/10/2024 | Creation              | Vusumuzi ZULU |

## Internal validations

|                 | Name            | Function            | Date       | Signature                                                                               |
|-----------------|-----------------|---------------------|------------|-----------------------------------------------------------------------------------------|
| <b>Creator</b>  | Vusumuzi ZULU   | EPU Manager         | 30/10/2024 | X    |
|                 |                 |                     |            | Vusumuzi ZULU<br>EPU Manager                                                            |
| <b>Verifier</b> | Sifiso LUKHELE  | Serial Test Manager | 30/10/2024 | X   |
|                 |                 |                     |            | Sifiso LUKHELE<br>Serial Test Manager                                                   |
| <b>Approver</b> | Kgomotso NKOANA | Test Expert         | 30/10/2024 | X  |
|                 |                 |                     |            | Kgomotso NKOANA<br>Test Expert                                                          |

## Execution Plan

|                   |            |
|-------------------|------------|
| <b>Start Date</b> | 26/10/2024 |
| <b>End Date</b>   | 31/10/2024 |

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## Section 1 – Purpose / Objectives

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1. NRG - The purpose of this test is to ensure that all high voltage cables and equipment are connected correctly.
2. NET - The purpose of this test is to verify the connection of the Ethernet wiring for the TCMS and Pacis network loop.
3. NRG 110 - The purpose of this test is to verify the presence of 110V DC permanent power on the train and the activation on the cab on both TC1 and TC2
4. MCB - The purpose of this test is to verify the correct operation of the High-Speed Circuit Breaker.
5. NRG 400 - The purpose of this test is to ensure the correct operation of all equipment supplied by 400V AC.
6. CAB - The purpose of this test is to verify to correct operation of each cabin.
7. INT - The purpose of this test is to verify the correct operation of the Emergency lighting and normal lighting in the train.
8. PNT - The purpose of this test is to verify the operation of the pantographs and air supply.
9. AIR - The purpose of this test is to verify the compressor operation on the train as well as to determine any leaks in the main piping system.
10. MCB - The purpose of this test is to ensure that all the safety circuit breakers are closed and they are properly monitored through the TCMS software
11. HVAC - The purpose of this test is to verify the Heating, cooling and ventilation of each car. The correct temperature response is verified.
12. DRC - The purpose of this test is to verify the correct driving operation modes and commands.
13. PBK - The purpose of this test is to verify the correct operation of both the manual and remote parking brake.
14. SBK - The purpose of this test is to verify the correct operation of the service brake system. This system integrates the mechanical and electrical braking together. Both must be fully operational.
15. EBK - The purpose of this test is to verify the correct operation of the mechanical braking system.
16. FSD - The purpose of this test is to verify the correct operation of the fire detection system.

## Section 2 – High Voltage Distribution

### 2.1 Instructions list

#### 2.1.1 010\_NRG-High Voltage Distribution

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | File | Result status | Result value | Operator                   | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|----------------------------|---------|
| 10001 | I    | Check the power lines, Non-earthed key                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | <p>For the following tests, the train should not have the presence of high voltage "3KV"</p> <p>For the following tests, the earthing switch of 10A11 boxes must be out of ground position</p> <p>Make sure all power lines not suffer attrition with the rail infrastructure, terminals, resistance and pantographs are fixed with proper torque and there is no tool or material on the roof of the train.</p> <p>At Depot, when it is necessary to access the train roof, person who is responsible for the activity should apply working knowledge in height with appropriate equipment.</p> <p>If there is any change to the train or it's environment this check becomes invalid. Please be sure that the check on the train status is done before reconnecting it.</p> |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | A    | Apply LOTO procedure on the High Voltage Catenary before commencing with the procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | High Voltage Line Continuity Check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | A    | Check continuity of the following cables using a long wire, do not short any point to ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |



|       |   |                                                                                                                                                        |  |    |  |                            |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|----------------------------|-------|
| 10006 | A | On TC1 car, from Converter Auxiliary Connector 18XT11 point HV+ cable (#1UP-W_1) to M4 car Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10007 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10008 | A | On M4 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) to M1 car High Voltage Box Connector 10XT11_HT1 point 3 cable (#1UM-V_2)   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10009 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10010 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to High Voltage Box Connector 10XT11_HT2 point 1 cable (#1UK-UM_1)         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10011 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10012 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10013 | R | There is NO continuity.                                                                                                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10014 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to High Voltage Box Connector 10XT11_HT2 point 1 cable (#1UK-UM_1)         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10015 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10016 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10017 | R | There is NO continuity.                                                                                                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10018 | A | On M2 car, from High Voltage Box Connector 10XT11_HT1 point 3 cable (#1UM-V_2) to M3 car Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3)   |  | OK |  | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                                                                                        |  |    |  |                            |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|----------------------------|-------|
| 10019 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10020 | A | On M3 car, From Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) to TC2 car Converter Auxiliary Connector 18XT11 point HV+ cable (#1UP-W_1) |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10021 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10022 | A | Put back all the removed covers and tighten                                                                                                            |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10023 | R | All covers are back and normalized                                                                                                                     |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10024 | I | End of Test                                                                                                                                            |  | OK |  | Siphesihle Mchunu - 491465 | Train |

## Section 3 – Energy Distribution 110V

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### 3.1 Instructions list

### 3.1.1 015\_NRG-Energy Distribution 110V

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                | File                                                                                | Result status | Result value | Operator                  | Vehicle |
|-------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------|---------|
| 10001 | I    | Energy Distribution 110V DC=SPP 015                                                                                                                                                                                        |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10002 | I    | Initial Conditions                                                                                                                                                                                                         |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10003 | I    | Train powered in normal mode with only battery power                                                                                                                                                                       |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10004 | A    | Activate Cab on TC1                                                                                                                                                                                                        |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10005 | A    | Close the battery contactor 18S1                                                                                                                                                                                           |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10006 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10007 | R    | After few minutes, the TCMS has successfully initialized on the DDU screen                                                                                                                                                 |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10008 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |  | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10009 | R    | The Battery Voltage on the Voltage line module is 110V                                                                                                                                                                     |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10010 | R    | On the Driver Screen, the battery voltage is the same as in the line module (110V)                                                                                                                                         |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |
| 10011 | I    | Parameter Update                                                                                                                                                                                                           |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | A    | Perform the following procedure to update the Energy saving parameters                                                                                                                                                     |  | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10013 | I    | CVS Firmware Update/SW Update                                                                                                                                                                                              |  | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | I    | When upgrading the software version ensure that both CVSs are online, and a train does not switch OFF and battery voltage should at least be 97V. Follow the instructions on the attachment for the upgrade in TC1 and TC2 |  | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10015 | I    | Power supply check for Equipment on Permanent line                                                                                                                                                                         |                                                                                     | OK            |              | Nqobile Chirwa - 484648   | Train   |

|       |   |                                                                                                |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10016 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10017 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10018 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10019 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10020 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10021 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10022 | A | Remove active cab on TC1                                                                       |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10023 | I | Train preparation on TC2 cab                                                                   |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10024 | A | Insert the Driver's Master key on TC2, turn it to ON position and close battery contactor 18S1 |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10025 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10026 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10027 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10028 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10029 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10030 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                                                                                  |                                                                                     |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10031 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10032 | R | Train is successfully shutdown                                                                                                                   |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10033 | I | Battery Low Watchdog                                                                                                                             |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10034 | I | This test is to verify that the battery Watchdog relay is working, when the battery voltage drops below 93V DC, the train automatically shutdown |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10035 | A | On TC2, turn ON the cleaning lights switch 52S6                                                                                                  |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10036 | R | Emergency lighting is ON in all cars                                                                                                             |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10037 | A | Remove the relay 15K1 from its base                                                                                                              |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10038 | R | Emergency lighting is OFF in all cars                                                                                                            |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10039 | A | Put back the relay 15K1 on its base                                                                                                              |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10040 | A | Walk to the TC2 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10041 | R | The CVS Agate is OFF                                                                                                                             |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10042 | A | Switch On the train on TC1 side                                                                                                                  |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10043 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10044 | A | Turn the switch 52S6 to switch ON the cleaning lights                                                                                            |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10045 | A | Remove the relay 15K1 from its base                                                                                                              |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10046 | R | The emergency lighting is OFF in all cars                                                                                                        |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10047 | A | Put back the relay on its base                                                                                                                   |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10048 | A | Walk to the TC1 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10049 | R | The CVS Agate is OFF                                                                                                                             |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10050 | I | Train Earthing Procedure                                                                                                                         |  | OK |  | Nqobile Chirwa - 484648 | Train |

|       |   |                                                              |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10051 | R | The train is successfully isolated and earthed.              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10052 | A | Normalize the train                                          |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10053 | R | The train is normalized.                                     |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10054 | R | Check the IOS status to see if both PANTOS are NOT isolated. |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10055 | I | End of Test                                                  |  | OK |  | Nqobile Chirwa - 484648 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 4 – Energy Distribution 400V AC

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### 4.1 Instructions list

#### 4.1.1 014\_NRG-Energy Distribution 400V AC

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                 | File | Result status | Result value | Operator                  | Vehicle |
|-------|------|-----------------------------------------------------------------------------|------|---------------|--------------|---------------------------|---------|
| 10001 | I    | Auxiliary Converters Command=SPP 018                                        |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions                                                          |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | TCMS should be working on train                                             |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | No high voltage present on catenary                                         |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | Start of Test                                                               |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | A    | Activate the Cab on TC2                                                     |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | A    | Close the battery contactor 18S1                                            |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | I    | Wait for the TCMS to successfully initialize, then do the steps below       |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 1.0 |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0     |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0 |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0     |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10013 | A    | Trip the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment               |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr1___1 = 0.0 |      | OK            | 0            | Mphato Mphahlele - 480716 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 0.0 |      | OK            | 0            | Mphato Mphahlele - 480716 | Train   |
| 10016 | R    | Read Defined Variable [TT]                                                  |      | OK            | 0            | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                                |  |    |   |                           |       |
|-------|---|--------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
|       |   | (MPU1)Li_NRG_Tc2DcDcGateDriveR1___1 = 0.0                                      |  |    |   |                           |       |
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2___1 = 0.0        |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10018 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10019 | A | Timer 30.0 S                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10020 | A | Reset the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10021 | A | Trip the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10024 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10025 | A | Timer 30.0 S                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10026 | A | Reset the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10027 | A | Activate the Cab on TC1                                                        |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10028 | A | Close the battery contactor 18S1                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10029 | I | Wait for the TCMS to successfully initialize, then do the steps below          |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10033 | R | Read Defined Variable [TT]                                                     |  | OK | 1 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                |  |    |   |                           |       |
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|       |   | (MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0                                      |  |    |   |                           |       |
| 10034 | A | Trip the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 0.0    |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr2___1 = 0.0    |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 0.0        |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 0.0        |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10039 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10040 | A | Timer 30.0 S                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10041 | A | Reset the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10042 | A | Trip the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10045 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10046 | A | Timer 30.0 S                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10047 | A | Reset the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10048 | I | Automatic Train Preparation & Auxiliary Converter Status                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstarttr1 = 0.0          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                          |                                                                                   |    |   |                              |       |
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| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr2 = 0.0                                     |                                                                                   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10051 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 1.0                                                     |                                                                                   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10052 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 1.0                                                     |                                                                                   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10053 | A | Timer 5.0 S                                                                                              |                                                                                   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                     |                                                                                   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr2 = 0.0                                     |                                                                                   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaulttr2 = 1.0                                    |                                                                                   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10057 | R | Lamp 18H1 is ON                                                                                          |                                                                                   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10058 | R | The ACU on TC1 and TC2 are not operational, the ACU appears in Grey colour on the DDU maintenance screen |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 0.0                                  |                                                                                   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 0.0                                  |                                                                                   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 0.0                                  |                                                                                   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 0.0                                  |                                                                                   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1 = 1.0                                 |                                                                                   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 = 1.0                                 |                                                                                   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 1.0                                          |                                                                                   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 1.0                                          |                                                                                   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                         |                                                                                   |    |   |                           |       |
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| 10067 | A | Switch on 3 kV DC on the catenary                                       |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr1 = 1.0         |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr1 = 1.0         |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10072 | R | Aux with reduced performance, lamp 18H1 is OFF                          |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0     |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10074 | R | Both ACUs are operational                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1__1 = 1.0  |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2__1 = 1.0  |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1__1 = 1.0  |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2__1 = 1.0  |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10079 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr1                        |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10080 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr2                        |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10081 | I | ACU Isolation and Bypass                                                |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0      |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0      |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                      |  |    |   |                           |       |
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| 10084 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 1.0                    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 0.0                      |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 1.0                      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10088 | I | The help contactor closes on M2 car                                                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 1.0                      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10090 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10091 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10092 | A | Press the button 22S12 to open HSCB                                                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10093 | R | Button lamp 22S12 is ON                                                              |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10094 | A | Press the button 22S11 to close HSCB                                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10095 | R | Button lamp 22S12 is OFF                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10096 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 0.0                    |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 0.0                      |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10099 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position on TC2                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 1.0                    |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 1.0                      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 0.0                      |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10103 | I | The help contactor closes on M2 car                                                  |  | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                         |  |    |   |                              |       |
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| 10104 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 1.0                      |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10105 | R | Verify that only one ACU is operational on<br>the DDU, and the help contactor is closed |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10106 | A | Put the switch 18S3 (ACU ISOLATION) to<br>NORMAL position on TC2                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10107 | A | Press the button 22S12 to open HSCB                                                     |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10108 | A | Press the button 22S11 to close HSCB                                                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10109 | R | Both ACUs are operational on DDU Driver's<br>screen                                     |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0                     |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 0.0                      |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10112 | I | ACU Fault simulation                                                                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10113 | A | Inside the ACU, switch off the AGATE by<br>tripping ACU circuit breaker in TC1          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10114 | A | Lamp 18H1 is ON in the alarm module                                                     |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10115 | A | Timer 20.0 S                                                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                      |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10117 | A | Close the ACU AGATE circuit breaker                                                     |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10118 | A | Timer 30.0 S                                                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10119 | A | Open HSCB                                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                      |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10121 | A | Close HSCB                                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10122 | R | Lamp 18H1 is OFF in the alarm module                                                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10123 | A | Inside the ACU, switch off the AGATE by<br>tripping ACU circuit breaker in TC2          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10124 | A | Lamp 18H1 is ON in the alarm module                                                     |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10125 | A | Timer 20.0 S                                                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |



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| 10126 | A | Close the ACU AGATE circuit breaker                                                      |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10127 | A | Timer 30.0 S                                                                             |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10128 | A | Open HSCB                                                                                |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10129 | A | Close HSCB                                                                               |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10130 | I | Verifying Aux Converter Output                                                           |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10131 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position on TC1 and TC2                 |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10132 | I | ACU stops working in TC1 and TC2 car                                                     |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelp1 = 0.0                        |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10134 | R | Lamp 18H1 is ON in the alarm module                                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10135 | I | This test is performed to verify that the ACUs can supply all the loads without tripping |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10136 | A | Open the circuit breaker 19Q2 on TC1                                                     |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10137 | A | Open the circuit breaker 57Q1 for all HVAC units                                         |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10138 | A | Open the circuit breaker 19Q2 TC2                                                        |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0                         |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0                         |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0                        |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                        |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |

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|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|---------------------------|-------|
| 10147 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC1 and TC2                                                                                                      |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10148 | I | ACU starts working on TC1 and TC2                                                                                                                                          |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10149 | A | Close the circuit breaker 19Q2 TC1                                                                                                                                         |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10150 | A | Close the circuit breaker 57Q1 for all HVAC units                                                                                                                          |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10151 | I | It is necessary to check on the DDU screen for HVAC status                                                                                                                 |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 1.0                                                                                                              |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 1.0                                                                                                              |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10158 | A | Close the circuit breaker 19Q2 TC2                                                                                                                                         |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                             |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0                                                                                                             |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10161 | R | Verify the circuit breaker 18Q2 ACU on TC1 and TC2 have not tripped                                                                                                        |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10162 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr1                                                                                                                              |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10163 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr2                                                                                                                              |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10164 | I | Shore supply 400Vac                                                                                                                                                        |                                                                                   | OK |   | Tshembhani Khosa - 446920 | Train |
| 10165 | I | This test is to verify if the Aux converters are able to start-up successfully under external power supply and also charge the batteries without 3kV DC from the catenary. |                                                                                   | OK |   | Tshembhani Khosa - 446920 | Train |

|       |   |                                                                                                                          |  |    |   |                           |       |
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| 10166 | I | The shore supply used should be limited to 63A at 400Vac, 50Hz, three phase. A neutral on the shore supply is mandatory. |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10167 | A | Press the button 22S12 to open the HSCB                                                                                  |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10168 | A | Press switch 21S1 to lower both pantographs                                                                              |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                                                          |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                                                          |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                       |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                       |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10173 | A | Connect the shore supply on TC1 ACU                                                                                      |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0                                                       |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0                                                     |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                       |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0                                                  |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10178 | A | Press switch 21S1 to raise both pantographs                                                                              |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10179 | A | Close HSCB using the button 22S11                                                                                        |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10180 | I | It is not possible to close HSCB with shore supply connected                                                             |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 0.0                                                        |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10182 | A | Remove shore supply from TC1 ACU                                                                                         |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                       |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0                                                     |  | OK | 1 | Tshembhani Khosa - 446920 | Train |

|       |   |                                                                                                                                                           |  |    |   |                              |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0                                                                                   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10187 | A | Connect the shore supply on TC2 ACU                                                                                                                       |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0                                                                                      |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                                                                                        |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0                                                                                   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10192 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10193 | I | It is not possible to close HSCB with shore supply connected                                                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 0.0                                                                                         |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10195 | A | Remove shore supply from TC2 ACU                                                                                                                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10196 | I | Shore Supply with 3kV present                                                                                                                             |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10197 | I | The system should be able to prevent the 400Vac contactor of the ACU from closing when 3 kV from the catenary is available and shore supply is connected. |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10198 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 1.0                                                                                         |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10202 | A | Connect the shore supply on TC1 ACU                                                                                                                       |  | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |                                                                            |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0       |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 =<br>0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0         |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0         |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10207 | A | Force [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0                         |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0       |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 =<br>1.0 |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10210 | R | The HSCBs open                                                             |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10211 | A | Release [TT]<br>(MPU1)li_nrg_tc1shoresupply__1                             |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10212 | A | Remove shore supply from TC1 ACU                                           |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0       |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 =<br>1.0 |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10215 | A | Close HSCB using the button 22S11                                          |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1<br>= 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 =<br>0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10218 | A | Connect the shore supply on TC2 ACU                                        |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 =<br>0.0 |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                         |  |    |   |                              |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10223 | A | Force [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                      |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10226 | R | The HSCBs open                                                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10227 | A | Release [TT]<br>(MPU1)li_nrg_tc2shoresupply__1                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10228 | A | Remove shore supply from TC2 ACU                                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10231 | A | Close HSCB                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10232 | R | Both ACUs are operational                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10233 | I | ACU reverse mode                                                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10234 | A | Open HSCB                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10235 | R | Verify on the DDU that the HSCB is open on M1 and M2                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10236 | R | Verify on the DDU that all HVACs are only operating in Ventilation mode |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10237 | R | Verify on the DDU that both CVS are operating in reverse mode           |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10238 | R | Verify on the DDU that both MASU are not running                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10239 | A | Switch ON the 3kV DC on the catenary                                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10240 | A | Close HSCB using button 22S11                                           |  | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                                            |  |    |   |                           |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10241 | R | Line voltage indicator shows at least 2.7kV DC                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10242 | R | Verify on the DDU that the HSCB is closed on M1 and M2                                     |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10243 | R | Verify on the DDU that all HVACs are operating under normal condition                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10244 | I | Automatic Train De-preparation & Auxiliary Converter status TC2                            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10245 | A | Press the Automatic start button 20S1 on the Driver's Desk or Virtual button on DDU screen |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 0.0                       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0                       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10248 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                     |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10249 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                      |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10250 | R | Train is in LV ready                                                                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10251 | I | Automatic train preparation and de-preparation on TC2                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10252 | A | Insert the Driver's master key on TC2 and turn it to ON position                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10253 | A | Close the battery contactor 18S1                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10254 | A | After the TCMS successful initialization, press the automatic start button 20S1            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10255 | R | Train is prepared in high voltage                                                          |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10256 | A | Press the automatic start button 20S1 to de-prepare the train                              |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10257 | R | Train is in LV ready                                                                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10258 | A | Open the battery contactor 18S1 to shut down the train                                     |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10259 | R | After few seconds, the train is successfully shutdown                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10260 | A | Close the battery contactor 18S1                                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10261 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10262 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr1___1 = 1.0                           |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr2___1 = 1.0                           |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10265 | A | Release battery contactor 18S1                                                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10266 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10267 | A | Insert the Driver's master key on TC1 and turn it to ON position                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10268 | A | Close the battery contactor 18S1                                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10269 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10270 | R | Train is in LV ready                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10271 | A | Open the battery contactor 18S1 to shut down the train                                         |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10272 | A | Close the battery contactor 18S1                                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10273 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10274 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr1___1 = 1.0                           |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr2___1 = 1.0                           |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10277 | A | Release battery contactor 18S1                                                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10278 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10279 | I | End of test                                                                                    |  | OK |   | Mphato Mphahlele - 480716 | Train |





|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 5 – Computer Network and DDU Screen

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### 5.1 Instructions list

### 5.1.1 025\_NET-Computer Network and DDU Screen

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                           | File | Result status | Result value | Operator                | Vehicle |
|-------|------|-----------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Computer Network and DDU Screen = SPP 025                                                                             |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | TCMS Network Loop                                                                                                     |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | This is a reflectometry test to check the TCMS complete loop                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Please save each result on the Fluke using the cable number given per line                                            |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | R    | There is good connection between CRS1-TC1[25A10] port X4 and CRS1-M1[25A10] port X3 TSX T01<br><br>Cable is crossed   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | R    | There is good connection between CRS4-TC1[25A13] port X3 and CRS1-M4[25A10] port X4 TSX T02<br><br>Cable is crossed   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | R    | There is good connection between TRS-TC1[25A15] port ETH3 and TBR-M4[25A14] port ETH0 TSX T03<br><br>Cable is crossed |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | There is good connection between TBR-TC1 [25A14]ETH1 and TBR-M1[25A14]ETH0 TSX T04<br><br>Cable is crossed            |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | There is good connection between TBR-M4[25A14]ETH1 and TBR-M2[25A14]ETH1 TSX T05<br><br>Cable is crossed              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | There is good connection between CRS2-M4[25A11] port X3 and CRS2-M2[25A11] port X4 TSX T06                            |      | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                                                                     |  |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
|       |   | Cable is crossed                                                                                                    |  |    |  |                         |       |
| 10011 | R | There is good connection between CRS2-M1[25A11] port X4 and CRS2-M3[25A11] port X3 TSX T07<br><br>Cable is crossed  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10012 | R | There is good connection between TBR-M1[25A14]ETH1 and TBR-M3[25A14]ETH1 TSX T08<br><br>Cable is crossed            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10013 | R | There is good connection between CRS1-M2[25A10] port X3 and CRS1-TC2[25A10] port X4 TSX T09<br><br>Cable is crossed |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10014 | R | There is good connection between TBR-M2[25A14]ETH0 and TBR-TC2[25A14]ETH1 TSX T10<br><br>Cable is crossed           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10015 | R | There is good connection between CRS1-M3[25A10] port X4 and CRS3-TC2[25A12] port X3 TSX T11<br><br>Cable is crossed |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10016 | R | There is good connection between TBR-M3[25A14]ETH0 and TRS-TC2[25A15]ETH1 TSX T12<br><br>Cable is crossed           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10017 | I | Pacis Network Loop                                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10018 | R | There is good connection between TRS1-TC1[54A13]ETH7 and CRS1-M4[54A10]port X7 TSX P01<br><br>Cable is crossed      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10019 | R | There is good connection between CRS1-TC1[54A10]port X7 and CRS2-M1[54A11]port X8 TSX P02<br><br>Cable is crossed   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10020 | R | There is good connection between CRS2-M4[54A11]port X8 and CRS1-M2[54A10]port X7 TSX P03                            |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                   |  |    |   |                           |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
|       |   | Cable is crossed                                                                                                  |  |    |   |                           |       |
| 10021 | R | There is good connection between CRS1-M1[54A10]port X7 and CRS2-M3[54A11]port X8 TSX P04<br><br>Cable is crossed  |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10022 | R | There is good connection between CRS2-M2[54A11]port X8 and CRS1-TC2[54A10]port X7 TSX P05<br><br>Cable is crossed |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10023 | R | There is good connection between CRS1-M3[54A10]port X7 and TRS1-TC2[54A13]ETH7 TSX P06<br><br>Cable is crossed    |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10024 | A | Download the results from the Fluke into a PDF format and upload it below                                         |  | OK |   | Ntobeko Ndlovu - 421595   | Train |
| 10025 | I | MCE Redundancy Test                                                                                               |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10026 | A | Switch ON the train in TC1 in Normal mode                                                                         |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10027 | I | MCE in TC1 should be the master MCE to begin the test                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Celiwe Sokhela - 491462   | Train |
| 10029 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 0.0                                                       |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10030 | A | Open the circuit breaker 40Q1 in TC1                                                                              |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10031 | I | The MCE in TC2 becomes the master MCE                                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10032 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Celiwe Sokhela - 491462   | Train |
| 10033 | A | Close circuit breaker 40Q1 in TC1                                                                                 |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10034 | A | Open circuit breaker 40Q1 in TC2                                                                                  |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10035 | I | The MCE in TC1 becomes the Master                                                                                 |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Celiwe Sokhela - 491462   | Train |
| 10037 | A | Close the circuit breaker 40Q1 in TC2                                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |

|       |   |                                                                |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10040 | A | Go to software version on DDU and select<br>RUN BL.            |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10041 | R | The Train Baseline is : 1.8/10.1/10.2                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10042 | I | End of Test                                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 6 – Main Circuit Breaker Control

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### 6.1 Instructions list

### 6.1.1 022\_HSC-Main Circuit Breaker Control

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                     | File | Result status | Result value | Operator               | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|------------------------|---------|
| 10001 | I    | Main Circuit Breaker Control=SPP 022                                                                                                            |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10002 | I    | Initial Conditions                                                                                                                              |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10003 | I    | This test is to verify the correct operation of the main high voltage circuit breaker.                                                          |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10004 | I    | Train in LV ready                                                                                                                               |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10005 | I    | The catenary should be switched OFF                                                                                                             |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10006 | I    | Circuit breaker 34Q1 should be closed in all Propulsion boxes                                                                                   |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10007 | I    | No Fire Detection alarm on the DDU screen                                                                                                       |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10008 | I    | Start Test                                                                                                                                      |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10009 | I    | HSCB control without High Voltage                                                                                                               |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10010 | I    | For this test, the HSCB control will be tested with no high voltage present to prevent degraded mode in the train in case there is wiring error |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10011 | I    | The button 27S5 should not be pressed on both cars                                                                                              |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10012 | A    | Active Cab on TC1                                                                                                                               |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 0.0                                                                                   |      | OK            | 0            | Mvelo Mthembu - 425564 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Mvelo Mthembu - 425564 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Mvelo Mthembu - 425564 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Mvelo Mthembu - 425564 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 0.0                                                                                      |      | OK            | 0            | Mvelo Mthembu - 425564 | Train   |

|       |   |                                                               |  |    |   |                           |       |
|-------|---|---------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 0.0    |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 0.0    |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 0.0    |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 0.0  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 0.0  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 0.0  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 0.0  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 1.0    |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 1.0    |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 1.0    |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 1.0    |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0 |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0 |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10031 | A | Press the button 21S1 to raise<br>Pantographs                 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10032 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10033 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 =<br>1.0           |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10034 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10035 | A | Force [TT]                                                    |  | OK |   | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                   |  |    |   |                        |       |
|-------|---|-------------------------------------------------------------------|--|----|---|------------------------|-------|
|       |   | (MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 = 1.0                                |  |    |   |                        |       |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc1firedetection = 0.0 |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc2firedetection = 0.0 |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 1.0     |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 1.0     |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 1.0     |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 1.0     |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0        |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0        |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0        |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0        |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0      |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0      |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0      |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0      |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0        |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0        |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0        |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0        |  | OK | 0 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                                    |  |    |   |                           |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 0.0                                                      |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr2 = 0.0                                                      |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10056 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1                                                                       |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10057 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2                                                                       |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10058 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1                                                                       |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10059 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2                                                                       |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10060 | A | Press the button 21S1 to lower<br>pantographs                                                                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10061 | I | Traction Converter Isolation TC1                                                                                   |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10062 | A | Switch ON the 3kV DC on the catenary                                                                               |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10063 | R | Verify on the line display that the catenary<br>voltage is 3kV DC on the line display<br>where the train is parked |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10064 | A | Press the button 21S1 to raise<br>pantographs                                                                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10065 | A | Press the button 22S11 to close HSCBs                                                                              |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10066 | R | Button lamp 22S11 is ON                                                                                            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 1.0                                                  |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 0.0                                                  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0                                                  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0                                                  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0                                                  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0                                                  |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                                 |  |    |   |                           |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10077 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2          |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0               |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                       |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0               |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0                 |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0                 |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10086 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10087 | A | Both HSCBs are closed                                                           |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10088 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10089 | A | Open HSCBs                                                                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10090 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10091 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                              |  |    |   |                        |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|------------------------|-------|
| 10092 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0            |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                    |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0              |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0              |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10101 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10102 | A | Both HSCBs are closed                                                        |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10103 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10104 | A | Open HSCBs                                                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10105 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10106 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10107 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                    |  | OK | 1 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                 |  |    |   |                           |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                       |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                   |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0                   |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10116 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10117 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10118 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10119 | R | All Traction units are in service and<br>operational                            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10120 | A | Press the button 22S12 to open the<br>HSCBs                                     |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0                   |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                   |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10123 | A | Press the button 21S1 to lower both<br>pantographs                              |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10124 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                          |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10125 | A | Remove active cab on TC1                                                        |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10126 | I | HSCB Operation with High Voltage                                                |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10127 | A | Active Cab on TC2                                                               |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10128 | A | Press the button 21S1 to raise both<br>pantographs                              |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10129 | R | Both pantographs are raised successfully                                        |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10130 | R | The voltage on the Line Voltage Indicator<br>module is at least 2.7 kV DC       |  | OK |   | Mvelo Mthembu -<br>425564 | Train |



|       |   |                                                                         |  |    |   |                        |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|------------------------|-------|
| 10131 | A | Press the button 22S11 to close HSCBs                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0              |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0              |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0              |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0              |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0              |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0              |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0              |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0              |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10146 | I | Traction Converter Isolation TC2                                        |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 0.0       |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 1.0       |  | OK | 1 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                        |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10158 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0      |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0              |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0        |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0        |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10165 | A | Press the button 22S11 to close HSCB                                   |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10166 | A | Both HSCBs are closed                                                  |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10167 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position |  | OK |   | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                              |  |    |   |                        |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|------------------------|-------|
| 10168 | A | Open HSCBs                                                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10169 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10170 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10171 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0            |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                    |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0              |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0              |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10180 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10181 | A | Both HSCBs are closed                                                        |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10182 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10183 | A | Open HSCBs                                                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10184 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10185 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10186 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0            |  | OK | 1 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                 |  |    |   |                           |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10195 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10196 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10197 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10198 | R | All Traction units are in service and<br>operational                            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10199 | I | End of test                                                                     |  | OK |   | Mvelo Mthembu -<br>425564 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 7 – Cabin Control

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### 7.1 Instructions list

### 7.1.1 020\_CAB-Cabin Control

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                  | File | Result status | Result value | Operator                  | Vehicle |
|-------|------|------------------------------------------------------------------------------|------|---------------|--------------|---------------------------|---------|
| 10001 | I    | Cabin Control SPP=020                                                        |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Condition                                                            |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | Backup switch should be in Normal Position                                   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | Train should be OFF                                                          |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | Start Test                                                                   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | I    | Cab Active TC1                                                               |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | A    | Insert Driver's Master key and turn it to ON position                        |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | A    | Close the battery contactor 18S1                                             |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | R    | Train successfully start up in normal mode                                   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | A    | Put the direction selector switch to FORWARD position                        |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10011 | A    | Try to put the Driver's master key in OFF position or remove it from the cab |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | R    | It is not possible to remove or turn the Driver's master key                 |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10013 | A    | Put the direction selector switch to NEUTRAL position                        |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | R    | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiveno = 1.0               |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10015 | A    | Turn key to non-active cab                                                   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10016 | A    | Open and close circuit breaker 20Q2                                          |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10017 | R    | Read Defined Variable [TT] (MPU1)li_cab_tc1masterkey__1 = 0.0                |      | OK            | 0            | Mphato Mphahlele - 480716 | Train   |
| 10018 | R    | Read Defined Variable [TT] (MPU1)li_cab_tc2masterkey__1 = 0.0                |      | OK            | 0            | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                            |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 1.0             |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 1.0          |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 0.0          |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 1.0          |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 1.0          |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 1.0          |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 1.0             |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 1.0             |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10031 | A | Active cab on TC1                                                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0          |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 1.0           |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0           |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 0.0             |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 0.0             |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |



|       |   |                                                                                                                      |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 0.0                                                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 0.0                                                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 0.0                                                    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 1.0                                                    |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 0.0                                                    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 0.0                                                    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 0.0                                                    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0                                           |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 0.0                                           |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10046 | I | Train Preparation with Automatic Start<br>button TC1                                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                                                 |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10048 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10049 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10050 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10051 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                                 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10053 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                                               |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10054 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                                                |  | OK | 2 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                                  |  |    |   |                           |       |
|-------|---|----------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10055 | I | Train De-preparation with Automatic Start button TC1                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10056 | A | Press the automatic start button 20S1                                            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10057 | A | Timer 5.0 S                                                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0             |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10059 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                           |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10060 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                            |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10061 | A | Remove active cab on TC1                                                         |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10062 | I | Standby mode TC1                                                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10063 | A | Active cab on TC1                                                                |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10064 | A | Press the automatic start button 20S1                                            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10065 | A | Remove active Cab on TC1                                                         |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10066 | A | Manually isolate EB on M4 using the pneumatic cock C2.3/1                        |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10067 | A | Press the standby mode button 20S2 and maintain it                               |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10068 | A | Manually isolate EB on TC1 using the pneumatic cock C1.3/1                       |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10069 | R | The pantograph lower and both HSCB open, then the train shuts down automatically |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10070 | A | Normalize the cock on M4                                                         |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10071 | A | Normalize the cock on TC1                                                        |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10072 | A | Cab Active TC2                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10073 | A | Insert Driver's Master Key and turn it to ON position                            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10074 | A | Put the direction selector switch to FORWARD position                            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10075 | A | Try to put the Driver's master key in OFF position or remove it from the cab     |  | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                         |  |    |   |                           |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10076 | R | It is not possible to remove or turn the Driver's master key            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10077 | A | Put the direction selector switch to NEUTRAL position                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10078 | A | Turn key to non-active cab                                              |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10079 | A | Open and close the circuit breaker 20Q2                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0        |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0        |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2__1 = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1__1 = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 1.0          |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 1.0          |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10094 | R | Read Defined Variable [TT]                                              |  | OK | 1 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                         |  |    |   |                           |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------------|-------|
|       |   | (MPU1)li_cab_tc1othercabinactive__1 = 1.0                               |  |    |   |                           |       |
| 10095 | A | Active cab on TC2                                                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0        |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1__1 = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 0.0          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2__1 = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 0.0          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 0.0       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10110 | I | Train Preparation with Automatic Start button TC2                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0    |  | OK | 0 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                      |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10112 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10113 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10114 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10115 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 1.0                                                 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10117 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                                               |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10118 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                                                |  | OK | 2 | Mphato Mphahlele -<br>480716 | Train |
| 10119 | I | Train De-preparation with Automatic Start<br>button TC2                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10120 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 0.0                                                 |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10122 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10123 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10124 | I | Double Cabin and cabin change                                                                                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10125 | I | Each cabin must have its own Driver's<br>Master key                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                                    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                                    |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10128 | A | Remove active cab on TC2                                                                                             |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10129 | A | Open and close the circuit breaker 20Q2                                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                                    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                                                         |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10132 | A | Activate the cab on TC2                                                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10133 | A | Active cab on TC1                                                                                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10134 | R | IOS 064 appears on the Driver's event list<br>to notify the driver a second key has been<br>inserted    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                       |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10137 | A | Remove active cab on TC2                                                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10139 | R | IOS 064 disappears on the Driver's event<br>list to notify the driver a second key has<br>been inserted |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10140 | A | Remove active cab from TC1                                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0                                       |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10143 | I | Standby mode TC2                                                                                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10144 | A | Active cab on TC2                                                                                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10145 | A | Press the automatic start button 20S1                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10146 | A | Remove active Cab on TC2                                                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10147 | A | Manually isolate EB on M3 using the<br>pneumatic cock C2.3/1                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10148 | A | Press the standby mode button 20S2 and<br>maintain it                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10149 | A | Manually isolate EB on TC2 using the<br>pneumatic cock C1.3/1                                           |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10150 | R | The pantograph lower and both HSCB<br>open, then the train shuts down                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |                           |  |    |  |                           |       |
|-------|---|---------------------------|--|----|--|---------------------------|-------|
|       |   | automatically             |  |    |  |                           |       |
| 10151 | A | Normalize the cock on M3  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10152 | A | Normalize the cock on TC2 |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10153 | I | End of Test               |  | OK |  | Mphato Mphahlele - 480716 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 8 – Internal Lighting

### 8.1 Instructions list

#### 8.1.1 052\_LGT-Internal Lighting

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                        | File | Result status | Result value | Operator                | Vehicle |
|-------|------|----------------------------------------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Internal Lighting = SPP 052                                                                        |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10003 | I    | Train should be off                                                                                |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10004 | I    | Main lighting                                                                                      |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                         |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10006 | I    | Main lighting is 100% brightness                                                                   |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10007 | R    | Main lighting is (ON) on TC1, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10008 | R    | Main lighting is (ON) on M4, verify the left and right LEDs are ON in each row in 100% brightness. |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10009 | R    | Main lighting is (ON) on M1, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10010 | R    | Main lighting is (ON) on M2, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10011 | R    | Main lighting is (ON) on M3, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10012 | R    | Main lighting is (ON) on TC2, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Nqobile Chirwa - 484648 | Train   |

|       |   |                                                                       |  |    |  |                         |       |
|-------|---|-----------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10013 | A | Force [TT] (MPU1)lo_lgt_tc1mainlgtcmd = 0.0                           |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10014 | A | Force [TT] (MPU1)lo_lgt_tc2mainlgtcmd = 0.0                           |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10015 | R | Emergency lighting is (ON) on TC2, brightness has been reduced to low |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10016 | R | Emergency lighting is (ON) on M3, brightness has been reduced to low  |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10017 | R | Emergency lighting is (ON) on M2, brightness has been reduced to low  |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10018 | R | Emergency lighting is (ON) on M1, brightness has been reduced to low  |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10019 | R | Emergency lighting is (ON) on M4, brightness has been reduced to low  |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10020 | R | Emergency lighting is (ON) on TC1, brightness has been reduced to low |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10021 | A | Release [TT] (MPU1)lo_lgt_tc1mainlgtcmd                               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10022 | A | Release [TT] (MPU1)lo_lgt_tc2mainlgtcmd                               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10023 | I | End of Test                                                           |  | OK |  | Nqobile Chirwa - 484648 | Train |

## Section 9 – Pantograph

---

### 9.1 Instructions list

### 9.1.1 021\_PNT-Pantograph

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                            | File | Result status | Result value | Operator                              | Vehicle |
|-------|------|----------------------------------------------------------------------------------------|------|---------------|--------------|---------------------------------------|---------|
| 10001 | I    | Pantograph = SPP 021                                                                   |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10002 | I    | Initial Conditions                                                                     |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10003 | I    | Main pipe should be 10bar                                                              |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10004 | I    | HSCB is open on M1 and M2 and both pantographs are low                                 |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10005 | I    | Auxiliary Compressor test must be completed in car level prior to performing this test |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10006 | I    | Mechanical pantograph test must be completed prior to performing this test             |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10007 | I    | EARTHING SWITCH T1 is in NORMAL Position on M1                                         |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10008 | I    | EARTHING SWITCH T1 is in NORMAL Position on M2                                         |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10009 | I    | HVB1 valve is in NORMAL position on M1                                                 |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10010 | I    | HVB1 valve is in NORMAL position on M2                                                 |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10011 | I    | Start of Test                                                                          |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10012 | A    | Active Cab on TC1                                                                      |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10013 | I    | Main Tank pressure switch                                                              |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10014 | I    | Make sure the HSCB is open                                                             |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10015 | A    | Empty the main pipe using the cock F2.1/1                                              |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10016 | A    | Connect a manometer on valve K2.8 in M1 and measure the pressure                       |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10017 | A    | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M1              |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10018 | I    | The sensor of the pantograph reservoir should switch when the pressure reaches         |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |

|       |   |                                                                                                                                 |  |    |   |                                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
|       |   | 5.5 bar(+/- 10%)                                                                                                                |  |    |   |                                       |       |
| 10019 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10020 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10021 | A | Connect a manometer on valve K2.8 in M2 and measure the pressure                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10022 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M2 car                                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10023 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10024 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10025 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10026 | A | Normalize the main pipe                                                                                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10027 | A | Close the HSCB                                                                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10028 | A | Remove the manometer                                                                                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10029 | A | Insert the nozzle of the manometer on M2 without the manometer connected, to drain the air when the auxiliary compressor starts |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10030 | A | Close the circuit breaker 21Q1 in M2                                                                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10031 | R | Auxiliary compressor starts working                                                                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr1 = 0.0                                                          |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr2 = 0.0                                                          |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr1 = 1.0                                                          |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr2 = 1.0                                                          |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                  |  |    |  |                                       |       |
|-------|---|--------------------------------------------------|--|----|--|---------------------------------------|-------|
| 10036 | A | Remove the manometer nozzle on M2                |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10037 | A | Put HVB1 valve in NORMAL position on M2          |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10038 | A | Put the earthing switch in NORMAL position on M2 |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10039 | A | Put HVB1 valve in NORMAL position on M1          |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10040 | A | Put the earthing switch in NORMAL position on M1 |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10041 | I | End of Test                                      |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 10 – Air Production

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### 10.1 Instructions list



### 10.1.1 019\_AIR-Air Production

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                      | File | Result status | Result value | Operator                           | Vehicle |
|-------|------|----------------------------------------------------------------------------------|------|---------------|--------------|------------------------------------|---------|
| 10001 | I    | Air Production = SPP 019                                                         |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10002 | I    | Initial Conditions                                                               |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10003 | A    | Put the train in LV ready (No High Voltage/No Shore Supply) on TC1 as active cab |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10004 | A    | Drain the air on TC1 main pipe using the cock F2.1/1                             |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10005 | R    | The pressure gauge of the main pipe is 0 bar                                     |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10006 | A    | Normalise the cock                                                               |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10007 | I    | Start of Test                                                                    |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0               |      | OK            | 0            | Siphehile Mchunu - 491465          | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                 |      | OK            | 0            | Siphehile Mchunu - 491465          | Train   |
| 10010 | A    | Open circuit breaker 19Q3 on TC1                                                 |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 0.0                    |      | OK            | 0            | Siphehile Mchunu - 491465          | Train   |
| 10012 | A    | Close circuit breaker 19Q3                                                       |      | OK            |              | Siphehile Mchunu - 491465          | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                    |      | OK            | 1            | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10014 | A    | Open circuit breaker 19Q3 on TC2                                                 |      | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 0.0                    |      | OK            | 0            | Tshembhani Khosa - 446920          | Train   |
| 10016 | A    | Close circuit breaker 19Q3 on TC2                                                |      | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                    |      | OK            | 1            | Siphehile Mchunu - 491465          | Train   |

|       |   |                                                                                                      |  |    |   |                                       |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                     |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10020 | I | Main Compressor operation                                                                            |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10021 | A | Press the automatic start button 20S1                                                                |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10022 | I | Both main air compressors start up                                                                   |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                                     |  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                                     |  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                   |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                   |  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10029 | I | It is necessary to check main pipe pressure<br>on the pneumatic gauge of TC1 and TC2<br>individually |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10030 | A | Wait for 10 minutes, then read the<br>variables below                                                |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                     |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                     |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                     |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                     |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0                                   |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |

|       |   |                                                                                                         |  |    |   |                                    |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10037 | A | Force [TT] NET_TrainTimeEvenDay = 1.0                                                                   |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10038 | A | Drain the air in the main pipe from TC1 side using cock F2.1/1 until the pressure reaches below 8.5 bar |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler2 = 1.0                                           |  | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler1 = 0.0                                           |  | OK | 0 | Siphehile Mchunu - 491465          | Train |
| 10041 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10042 | A | Force [TT] NET_TrainTimeEvenDay = 0.0                                                                   |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10043 | A | Drain the air in the main pipe from TC1 side using cock F2.1/1 until the pressure reaches below 8.5 bar |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler1 = 0.0                                           |  | OK | 0 | Siphehile Mchunu - 491465          | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler2 = 1.0                                           |  | OK | 1 | Siphehile Mchunu - 491465          | Train |
| 10046 | I | Compressor Manual Isolation TC1                                                                         |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10047 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10048 | A | Put the pneumatic switch 19S1 to ISOLATION position                                                     |  | OK |   | Siphehile Mchunu - 491465          | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 1.0                                            |  | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr2 = 1.0                                            |  | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0                                              |  | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplydelay = 0.0                                           |  | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10053 | A | Put the pneumatic switch 19S1 to NORMAL position                                                        |  | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 0.0                                            |  | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                                           |                                                                                   |    |         |                                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---------|---------------------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 0.0                                                                                                           |                                                                                   | OK | 0       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                                                                                                          |                                                                                   | OK | 0       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                   | OK | 1       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10058 | R |                                                                                                                                                                           |                                                                                   | OK | 1003.09 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10059 | I | Compressor stops when it reaches 10 bar                                                                                                                                   |                                                                                   | OK |         | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                   | OK | 1       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10061 | R | Verify that the pressure gauge indicates<br>the correct pressure values, according to<br>the DDU<br>BC: Brake cylinder(yellow indicator)<br>MRP: Main Pipe(Red indicator) |  | OK |         | Siphehile Mchunu -<br>491465          | Train |
| 10062 | I | Compressor Remote Isolation TC1                                                                                                                                           |                                                                                   | OK |         | Siphehile Mchunu -<br>491465          | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                                                                                          |                                                                                   | OK | 0       | Siphehile Mchunu -<br>491465          | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                   | OK | 1       | Siphehile Mchunu -<br>491465          | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0                                                                                                              |                                                                                   | OK | 1       | Siphehile Mchunu -<br>491465          | Train |
| 10066 | I | It is important to make sure the main pipe<br>pressure is always below 10 bar for the<br>purpose of this test                                                             |                                                                                   | OK |         | Siphehile Mchunu -<br>491465          | Train |
| 10067 | A | Release the air in the main pipe until it<br>reaches below 8.5 bar                                                                                                        |                                                                                   | OK |         | Siphehile Mchunu -<br>491465          | Train |
| 10068 | A | Open circuit breaker 19Q3                                                                                                                                                 |                                                                                   | OK |         | Siphehile Mchunu -<br>491465          | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                                                                                        |                                                                                   | OK | 1       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10070 | A | Press the button 19S2 and hold                                                                                                                                            |                                                                                   | OK |         | Siphehile Mchunu -<br>491465          | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0                                                                                                              |                                                                                   | OK | 0       | Siphehile Mchunu -<br>491465          | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                   | OK | 1       | Siphehile Mchunu -<br>491465          | Train |

|       |   |                                                                    |    |   |                                       |       |
|-------|---|--------------------------------------------------------------------|----|---|---------------------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10074 | A | Release the button 19S2                                            | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10078 | A | Open circuit breaker 19Q2 in the LVB                               | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10080 | A | Press and hold the button 19S2                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10082 | A | Release the button 19S2                                            | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1remotecb = 0.0       | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10084 | A | Close circuit breaker 19Q3                                         | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10085 | A | Press 19S2 and RELEASE in less than a<br>second                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10089 | I | Compressor Manual Isolation TC2                                    | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10090 | A | Put the pneumatic switch 19S1 to<br>ISOLATION position             | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 1.0    | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 1.0    | OK | 1 | Siphehile Mchunu -<br>491465          | Train |

|       |   |                                                                    |  |    |        |                                       |       |
|-------|---|--------------------------------------------------------------------|--|----|--------|---------------------------------------|-------|
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0 |  | OK | 0      | Siphehile Mchunu -<br>491465          | Train |
| 10094 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                   |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0      | Siphehile Mchunu -<br>491465          | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Siphehile Mchunu -<br>491465          | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Siphehile Mchunu -<br>491465          | Train |
| 10098 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 0.0    |  | OK | 0      | Siphehile Mchunu -<br>491465          | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 0.0    |  | OK | 0      | Siphehile Mchunu -<br>491465          | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0 |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10104 | I | Compressor stops when it reaches 10 bar                            |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10105 | R |                                                                    |  | OK | 984.92 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0      | Siphehile Mchunu -<br>491465          | Train |
| 10107 | A | Remove active cab on TC1                                           |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Siphehile Mchunu -<br>491465          | Train |
| 10109 | A | Active cab on TC2                                                  |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Siphehile Mchunu -<br>491465          | Train |
| 10111 | I | Compressor Remote Isolation TC2                                    |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0  |  | OK | 1      | Siphehile Mchunu -<br>491465          | Train |

|       |   |                                                                                                               |  |    |   |                                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                  |  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10114 | I | It is important to make sure the main pipe<br>pressure is always below 10 bar for the<br>purpose of this test |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10115 | A | Release the air in the main pipe until it<br>reaches below 8.5 bar                                            |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                            |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10117 | A | Open circuit breaker 19Q3                                                                                     |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10118 | A | Press and hold the button 19S2                                                                                |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                                  |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                             |  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10121 | A | Release the button 19S2                                                                                       |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                             |  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                  |  | OK | 1 | Siphehile Mchunu -<br>491465          | Train |
| 10124 | A | Open circuit breaker 19Q2 in LVB                                                                              |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                                             |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10126 | A | Press and hold the button 19S2                                                                                |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                                  |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10128 | A | Release the button 19S2                                                                                       |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10129 | A | Close circuit breaker 19Q3                                                                                    |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2remotecb = 0.0                                                  |  | OK | 0 | Siphehile Mchunu -<br>491465          | Train |
| 10131 | A | Press 19S2 and RELEASE in less than a<br>second                                                               |  | OK |   | Siphehile Mchunu -<br>491465          | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                             |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                       |  |    |        |                                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--------|---------------------------------------|-------|
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                                                                    |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                                                          |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10135 | I | Air tightness of Main pipe and other<br>pneumatic systems on train                                                                                    |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10136 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                                                                                      |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10137 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                                                                                      |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10138 | A | Empty the main pipe pressure using<br>draining cock A5/1 until it reaches below<br>7.5 bar                                                            |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10139 | I | Put both compressors in service by closing<br>circuit breaker 19Q2 and also ensure<br>isolation switch 19S1 is in NORMAL<br>position on both TC cars  |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                                                                          |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                                                                          |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10142 | I | Only one compressor starts when the<br>pressure reaches below 8.5 bar. At 10bar<br>+/- 0.2 bar the compressor stops.                                  |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10143 | I | After 10 minutes, the air in the main pipe<br>should not be less than 9.3 bar                                                                         |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10144 | R | Read Undefined Variable [TT]<br>(MPU1)air_bcu1mrpres                                                                                                  |  | OK | 949.36 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10145 | I | Air tightness of main reservoirs and<br>associated devices combined with other<br>pneumatic equipment's                                               |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10146 | A | Isolate the Service and Emergency Brake<br>circuit of each car by turning the isolation<br>cocks C1.3/1 and C.2.3/1 towards the<br>isolation position |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10147 | A | Reset the air in the main pipe to 10 bar+/-<br>0.2 bar                                                                                                |  | OK |        | Siphehile Mchunu -<br>491465          | Train |
| 10148 | I | If necessary drain the air in the main pipe<br>until at least one compressor starts to<br>reset the pressure to 10 bar                                |  | OK |        | Siphehile Mchunu -<br>491465          | Train |



|       |   |                                                                                                                                                                                                      |                                                                                     |    |     |                                    |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|-----|------------------------------------|-------|
| 10149 | R | Measure the pressure of the main pipe on A1.12 test point and verify that the pressure does not fall by more than 75 kPa (0.75 bar) after 10 minutes, from an initial pressure of 1000 kPa (10 bar). |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10150 | R |                                                                                                                                                                                                      |                                                                                     | OK | 10  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10151 | A | NORMALISE the isolation cocks C1.3/1 and C2.3/1                                                                                                                                                      |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10152 | I | Air tightness of brake cylinders and auxiliary reservoirs                                                                                                                                            |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10153 | R | The pressure on the pneumatic indicator is 10 bar +/- 0.2 bar                                                                                                                                        |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10154 | A | Select driving direction to FORWARD position                                                                                                                                                         |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10155 | A | Put Master Controller in 100% Service brake position                                                                                                                                                 |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10156 | A | Using the manometer, check the SB values in each brake panel, in each car the pressure should not decrease more than 20kPa in over 12 minutes                                                        |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10157 | R | SB TC1<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                                                      |                                                                                     | OK | 137 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10158 | R | SB M4<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                                                       |                                                                                     | OK | 165 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10159 | R | SB M1<br>Result Min/Max : 137<= x <= 177 (kPa)                                                                                                                                                       |                                                                                     | OK | 152 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10160 | R | SB M2<br>Result Min/Max : 137<= x <= 176 (kPa)                                                                                                                                                       |                                                                                     | OK | 144 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10161 | R | SB M3<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                                                       |                                                                                     | OK | 143 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10162 | R | SB TC2<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                                                      |                                                                                     | OK | 153 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10163 | R | Verify that the pressure gauge indicates the correct pressure values, according to the DDU<br>BC: Brake cylinder(yellow indicator)<br>MRP: Main Pipe(Red indicator)                                  |  | OK |     | Hlawulani Nick Mabundzane - 418320 | Train |
| 10164 | I | Draining Cock for Intercar                                                                                                                                                                           |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10165 | I | Air in the main pipe should be 10 bar +/- 0.2 bar                                                                                                                                                    |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |
| 10166 | A | This test is to ensure that the draining cocks are fully functional                                                                                                                                  |                                                                                     | OK |     | Siphehile Mchunu - 491465          | Train |

|       |   |                                                                                              |  |    |  |                            |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|--|----------------------------|-------|
| 10167 | A | Isolate all the cocks from M3 to M4                                                          |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10168 | A | Drain the air on TC1 car using the cock F2.1/1                                               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10169 | A | Drain the air on M4 car using the cock F2.1/1                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10170 | A | Drain the air on M1 car using the cock F2.1/1                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10171 | A | Drain the air on M2 car using the cock F2.1/1                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10172 | A | Drain the air on M3 car using the cock F2.1/1                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10173 | A | Drain the air on TC2 car using the cock F2.1/1                                               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10174 | A | Normalise all the cocks                                                                      |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10175 | A | Use the tool on the top right corner to add the manometer used for this test (serial number) |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10176 | I | End of Test                                                                                  |  | OK |  | Siphesihle Mchunu - 491465 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 11 – Monitoring Circuit Breakers

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### 11.1 Instructions list

### 11.1.1 080\_MCB-Monitoring Circuit Breakers

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                      | File | Result status | Result value | Operator              | Vehicle |
|-------|------|------------------------------------------------------------------|------|---------------|--------------|-----------------------|---------|
| 10001 | I    | Monitoring Circuit Breakers SPP=080                              |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10002 | I    | TC1                                                              |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10003 | A    | Open the circuit breaker 15Q4                                    |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10004 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 0.0 |      | OK            | 0            | Sinazo Mkhwa - 529940 | Train   |
| 10005 | A    | Close the circuit breaker 15Q4                                   |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 1.0 |      | OK            | 1            | Sinazo Mkhwa - 529940 | Train   |
| 10007 | A    | Open the circuit breaker 13Q1                                    |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 0.0 |      | OK            | 0            | Sinazo Mkhwa - 529940 | Train   |
| 10009 | A    | Close the circuit breaker 13Q1                                   |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 1.0 |      | OK            | 1            | Sinazo Mkhwa - 529940 | Train   |
| 10011 | A    | Open the circuit breaker 57Q1                                    |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0 |      | OK            | 0            | Sinazo Mkhwa - 529940 | Train   |
| 10013 | A    | Close the circuit breaker 57Q1                                   |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 1.0 |      | OK            | 1            | Sinazo Mkhwa - 529940 | Train   |
| 10015 | A    | Open the circuit breaker 72Q1                                    |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 0.0     |      | OK            | 0            | Sinazo Mkhwa - 529940 | Train   |
| 10017 | A    | Close the circuit breaker 72Q1                                   |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 1.0     |      | OK            | 1            | Sinazo Mkhwa - 529940 | Train   |
| 10019 | A    | Open the circuit breaker 40Q4                                    |      | OK            |              | Sinazo Mkhwa - 529940 | Train   |

|       |   |                                                                   |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 0.0       |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10021 | A | Close the circuit breaker 40Q4                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 1.0       |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10023 | A | Open the circuit breaker 50Q7                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 0.0       |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10025 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 1.0       |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10027 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10029 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10031 | A | Open the circuit breaker 44Q1                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10034 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10037 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10039 | A | Close the circuit breaker 72Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                    |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10041 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)li_DDK_Tc1CbTcms1R2 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10043 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10044 | A | Open the circuit breaker 25Q13                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10046 | A | Close the circuit breaker 25Q13                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r2 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10049 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10052 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10055 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10058 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10061 | I | M4                                                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                 |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10062 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10064 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10066 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10068 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10070 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10072 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10074 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10076 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10078 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10080 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10082 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |



|       |   |                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10085 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 1.0        |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10087 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10089 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10091 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 0.0        |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10093 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 1.0        |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10095 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10098 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10101 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10103 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                |    |   |                          |       |
|-------|---|----------------------------------------------------------------|----|---|--------------------------|-------|
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 1.0   | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10105 | A | Open the circuit breaker 25Q6                                  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 0.0   | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 0.0   | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10108 | A | Close the circuit breaker 25Q6                                 | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 1.0   | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 1.0   | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10111 | A | Open the circuit breaker 25Q10                                 | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 0.0   | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10113 | A | Close the circuit breaker 25Q10                                | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10114 | A | Open the circuit breaker 25Q14                                 | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 0.0   | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10116 | A | Close the circuit breaker 25Q14                                | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 1.0   | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 1.0   | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10119 | A | Open the circuit breaker 33Q1                                  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 0.0  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10121 | A | Close the circuit breaker 33Q1                                 | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 1.0  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10123 | A | Open the circuit breaker 55Q2                                  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 0.0 | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                 |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10125 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 1.0  |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10127 | I | M1                                                              |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10128 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10130 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10132 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10134 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10136 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10138 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10140 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10142 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10144 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10146 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 1.0       |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10148 | A | Open the circuit breaker 21Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10150 | A | Close the circuit breaker 21Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10152 | A | Open the circuit breaker 57Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 0.0        |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10154 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 1.0        |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10156 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10158 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10160 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 0.0        |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10162 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 1.0        |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10164 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10167 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10170 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10172 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10174 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10177 | A | Close the circuit breaker 25Q6                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10180 | A | Open the circuit breaker 25Q10                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10182 | A | Close the circuit breaker 25Q10                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10183 | A | Open the circuit breaker 25Q14                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10185 | A | Close the circuit breaker 25Q14                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10188 | A | Open the circuit breaker 33Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                 |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10190 | A | Close the circuit breaker 33Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10192 | A | Open the circuit breaker 55Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 0.0  |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10194 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 1.0  |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10196 | I | M2                                                              |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10197 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10199 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10201 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10203 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10205 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10207 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10209 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                              |  |    |   |                          |       |
|-------|---|--------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10211 | A | Close the circuit breaker 40Q1                               |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10213 | A | Open the circuit breaker 50Q4                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10215 | A | Close the circuit breaker 50Q4                               |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10217 | A | Open the circuit breaker 21Q2                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 0.0  |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10219 | A | Close the circuit breaker 21Q2                               |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 1.0  |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10221 | A | Open the circuit breaker 62Q2                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10224 | A | Close the circuit breaker 62Q2                               |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10227 | A | Open the circuit breaker 57Q2                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvac = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10229 | A | Close the circuit breaker 57Q2                               |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvac = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                  |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10231 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 0.0    |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10233 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 1.0    |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10235 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 0.0        |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10237 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 1.0        |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10239 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10242 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10245 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10247 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10249 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtms1r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtms1r2 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |



|       |   |                                                                |  |    |   |                       |       |
|-------|---|----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10252 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 1.0   |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 1.0   |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10255 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 0.0   |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10257 | A | Close the circuit breaker 25Q10                                |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10258 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 0.0   |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10260 | A | Close the circuit breaker 25Q14                                |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10261 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 1.0   |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10262 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 1.0   |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10263 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 0.0  |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10265 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 1.0  |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10267 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10269 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10271 | I | M3                                                             |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10272 | A | Open the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                 |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10274 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10276 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10278 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10280 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10282 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10284 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10286 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10288 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10290 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10292 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvacc = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                  |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10294 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvac = 1.0        |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10296 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 0.0    |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10298 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 1.0    |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10300 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpacs = 0.0        |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10302 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpacs = 1.0        |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10304 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10307 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10310 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10312 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10314 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10317 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10320 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10322 | A | Close the circuit breaker 25Q10                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10323 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10325 | A | Close the circuit breaker 25Q14                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10328 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 0.0  |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10330 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 1.0  |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10332 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10334 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                  |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10336 | I | TC2                                                              |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10337 | A | Open the circuit breaker 15Q4                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10339 | A | Close the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10341 | A | Open the circuit breaker 13Q1                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10343 | A | Close the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10345 | A | Open the circuit breaker 57Q1                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10347 | A | Close the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10349 | A | Open the circuit breaker 72Q1                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 0.0     |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10351 | A | Close the circuit breaker 72Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 1.0     |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10353 | A | Open the circuit breaker 40Q4                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10355 | A | Close the circuit breaker 40Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10357 | A | Open the circuit breaker 50Q7                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                   |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 0.0       |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10359 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 1.0       |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10361 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10363 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10365 | A | Open the circuit breaker 44Q1.                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10368 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10371 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10373 | A | Close the circuit breaker 72Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10375 | A | Open the circuit breaker 25Q11                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtms1r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10377 | A | Close the circuit breaker 25Q11                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10378 | A | Open the circuit breaker 25Q15                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                                       |  |    |   |                          |       |
|-------|---|---------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 0.0                         |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10380 | A | Close the circuit breaker 25Q15                                                       |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 1.0                         |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 1.0                         |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10383 | A | Open the circuit breaker 25Q10                                                        |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 0.0                         |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 0.0                         |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10386 | A | Close the circuit breaker 25Q10                                                       |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 1.0                         |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 1.0                         |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10389 | A | Open the circuit breaker 75Q1                                                         |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 0.0                    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 0.0                    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10392 | A | Close the circuit breaker 75Q1                                                        |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 1.0                    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 1.0                    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10395 | R | On the Driver's event list, check there are<br>no IOS recorded about circuit breakers |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10396 | I | End of Test                                                                           |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 12 – Air Conditioning

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### 12.1 Instructions list

### 12.1.1 057\_HVAC-SME and TK HVAC

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                                                                     | File                                                                                | Result status | Result value | Operator                  | Vehicle |
|-------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------|---------|
| 10001 | I    | Air Conditioning SPP=057                                                                                                                                                                                                                                                        |                                                                                     | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10002 | A    | Turn Key 30A1.S1 to Active Cabin Position on TC1                                                                                                                                                                                                                                |                                                                                     | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10003 | I    | Train Prepared in High voltage with active cab on TC1                                                                                                                                                                                                                           |                                                                                     | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10004 | I    | Please note that HVAC has protection against too low and too high temperatures. It is important to note that this is not a fault.                                                                                                                                               |                                                                                     | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10005 | I    | Web portal guide                                                                                                                                                                                                                                                                |                                                                                     | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10006 | I    | Please note that there are two types of HVACs that may be installed in one train. One is TK HVAC and the other is SME HVAC. They both function the same way, but the web portal is different. The below documents are a guide on how to navigate both web portals.              |                                                                                     | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10007 | A    |                                                                                                                                                                                                                                                                                 |  | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10008 | A    |                                                                                                                                                                                                                                                                                 |  | OK            |              | Tebogo Mtombeni - 529938  | Train   |
| 10009 | I    | Cabin TC1                                                                                                                                                                                                                                                                       |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | I    | Use the temperature sensor to verify the temperature of the cabin                                                                                                                                                                                                               |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10011 | A    | Connect the laptop to the HVAC maintenance software using web browser. Enter the following IP address on the web browser 10.136.xxx.27<br>xxx represents the train number<br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | A    | For SME HVAC go to the status tab, then go to Details-Cabin to view the cabin operations. Note the set temperature and                                                                                                                                                          |  | OK            |              | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                                                                                       |  |    |  |                           |       |
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|       |   | the fan speed<br>For TK HVAC go to Overview then Forced and scroll down to 'CAB forced' to view the cabin operations.                 |  |    |  |                           |       |
| 10013 | I | Check the Steps below and compare with Maintenance software                                                                           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10014 | A | Select the switch 57S1 to Low Speed Ventilation                                                                                       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10015 | R | On the maintenance screen the Cab Fan Speed Low Input is showing as ACTIVE whilst the Cab Fan Speed High Input is showing as INACTIVE |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10016 | A | Select the switch '57S2' to position 0                                                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10017 | R | Temperature is set to 18°C                                                                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10018 | A | Select the switch '57S2' to position 1                                                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10019 | R | Temperature is set to 20°C                                                                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10020 | A | Select the switch '57S2' to position 2                                                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10021 | R | Temperature is set to 22°C                                                                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10022 | A | Select the switch '57S2' to position 3                                                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10023 | R | Temperature is set to 24°C                                                                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10024 | A | Select the switch '57S2' to position 4                                                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10025 | R | Temperature is set to 26°C                                                                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10026 | A | Now select the switch '57S1' to High Ventilation                                                                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10027 | R | On the maintenance screen the Cab Fan Speed High Input is showing as ACTIVE whilst the Cab Fan Speed Low Input is showing as INACTIVE |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10028 | A | Select the switch '57S2' to position 0                                                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10029 | R | Temperature is set to 18°C                                                                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10030 | A | Select the switch '57S2' to position 1                                                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10031 | R | Temperature is set to 20°C                                                                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                        |  |    |   |                           |       |
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| 10032 | A | Select the switch '57S2' to position 2                                                                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10033 | R | Temperature is set to 22°C                                                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10034 | A | Select the switch '57S2' to position 3                                                                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10035 | R | Temperature is set to 24°C                                                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10036 | A | Select the switch '57S2' to position 4                                                                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10037 | R | Temperature is set to 26°C                                                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10038 | I | Cabin Footrest Heater Test on TC1                                                                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault__1 = 0.0                                                    |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10040 | R | Foot Heater is Off                                                                                                     |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10041 | A | Simulate a failure of the heater by opening circuit breaker 57Q2                                                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10042 | A | Press the button 57S3                                                                                                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10043 | R | Foot Heater is Off                                                                                                     |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault__1 = 1.0                                                    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10045 | A | Release '57S3' pushbutton                                                                                              |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10046 | A | Close circuit breaker 57Q2                                                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10047 | A | Press the button 57S3 to activate the foot heater                                                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault__1 = 0.0                                                    |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10049 | R | Foot Heater is ON                                                                                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10050 | I | HVAC Saloon TC1                                                                                                        |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10051 | A | On the maintenance software web-browser, go to alarms tab and clear all the alarms and events for TC1 saloon and cabin |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10052 | A | Launch the HVAC test for TC1 car on the DDU maintenance screen                                                         |  | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                           |       |
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| 10053 | A | On the maintenance software, check that the HVAC mode for TC1 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling     |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10054 | R | After 9 minutes, TC1 saloon HVAC test has passed.                                                                                                                                                       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10055 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10056 | I | HVAC Cabin TC1                                                                                                                                                                                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10057 | A | Launch the HVAC test for the TC1 Cab                                                                                                                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10058 | A | On the maintenance software, check that the HVAC mode for TC1 Cab corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10059 | R | After 9 minutes, the TC1 cabin HVAC test has passed.                                                                                                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10060 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10061 | I | HVAC Saloon M4                                                                                                                                                                                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10062 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.32<br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super            |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10063 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M4 car                                                                                                             |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10064 | A | Launch the HVAC test for M4 car on the DDU maintenance screen                                                                                                                                           |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10065 | A | On the maintenance software, check that the HVAC mode for M4 corresponds to the status on the DDU Screen. For every 3                                                                                   |  | OK |  | Tebogo Mtombeni - 529938  | Train |

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|       |   | minutes the HVAC mode should change between Ventilation, Heating and Cooling                                                                                                                       |  |    |  |                          |       |
| 10066 | R | After 9 minutes, the M4 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10067 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                        |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10068 | I | HVAC Saloon M1                                                                                                                                                                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10069 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.29<br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super       |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10070 | A | On the maintenance software go to alarms tab clear all the alarms and events for M1 car                                                                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10071 | A | Launch the HVAC test for M1 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10072 | A | On the maintenance software, check that the HVAC mode for M1 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10073 | R | After 9 minutes, the M1 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10074 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                        |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10075 | I | HVAC Saloon M2                                                                                                                                                                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10076 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.30<br><br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor                      |  | OK |  | Tebogo Mtombeni - 529938 | Train |

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|       |   | Password: super                                                                                                                                                                                    |  |    |  |                          |       |
| 10077 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M2 car                                                                                                        |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10078 | A | Launch the HVAC test for M2 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10079 | A | On the maintenance software, check that the HVAC mode for M2 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10080 | R | After 9 minutes, the M2 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10081 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                        |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10082 | I | HVAC Saloon M3                                                                                                                                                                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10083 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.31<br><br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super   |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10084 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M3 car                                                                                                        |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10085 | A | Launch the HVAC test for M3 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10086 | A | On the maintenance software, check that the HVAC mode for M3 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10087 | R | After 9 minutes, the M3 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10088 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded                                                                                   |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                           |       |
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|       |   | during testing to help with fault finding.                                                                                                                                                              |  |    |  |                           |       |
| 10089 | I | HVAC Saloon TC2                                                                                                                                                                                         |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10090 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.28<br><br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10091 | A | On the maintenance software go to alarms tab and clear all the alarms and events for TC2 car                                                                                                            |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10092 | A | Launch the HVAC test for TC2 car on the DDU maintenance screen                                                                                                                                          |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10093 | A | On the maintenance software, check that the HVAC mode for TC2 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling     |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10094 | R | After 9 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10095 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10096 | I | HVAC Cabin TC2                                                                                                                                                                                          |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10097 | A | Launch the HVAC test for the TC2 Cab                                                                                                                                                                    |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10098 | A | On the maintenance software, check that the HVAC mode for TC2 Cab corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10099 | R | After 9 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                                   |  | OK |  | Tebogo Mtombeni - 529938  | Train |
| 10100 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Tebogo Mtombeni - 529938  | Train |



|       |   |                                                                                                                                                                                                                                              |                                                                                   |    |  |                          |       |
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| 10101 | A | Turn Key 30A1.S1 to Non-Active Cabin Position on TC1                                                                                                                                                                                         |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10102 | I | Cabin TC2                                                                                                                                                                                                                                    |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10103 | A | Turn Key 30A1.S1 to Active Cabin Position on TC2                                                                                                                                                                                             |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10104 | A | For SME HVAC go to the status tab, then go to Details-Cabin to view the cabin operations. Note the set temperature and the fan speed<br>For TK HVAC go to Overview then Forced and scroll down to 'CAB forced' to view the cabin operations. |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10105 | I | Check the Steps below and compare with Maintenance software                                                                                                                                                                                  |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10106 | A | Select the switch 57S1 to Low Speed Ventilation                                                                                                                                                                                              |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10107 | R | On the maintenance screen the Cab Fan Speed Low Input is showing as ACTIVE whilst the Cab Fan Speed High Input is showing as INACTIVE                                                                                                        |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10108 | A | Select the switch '57S2' to position 0                                                                                                                                                                                                       |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10109 | R | Temperature is set to 18°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10110 | A | Select the switch '57S2' to position 1                                                                                                                                                                                                       |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10111 | R | Temperature is set to 20°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10112 | A | Select the switch '57S2' to position 2                                                                                                                                                                                                       |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10113 | R | Temperature is set to 22°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10114 | A | Select the switch '57S2' to position 3                                                                                                                                                                                                       |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10115 | R | Temperature is set to 24°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10116 | A | Select the switch '57S2' to position 4                                                                                                                                                                                                       |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10117 | R | Temperature is set to 26°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10118 | A | Now select the switch '57S1' to High Ventilation                                                                                                                                                                                             |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10119 | R | On the maintenance screen the Cab Fan Speed High Input is showing as ACTIVE whilst the Cab Fan Speed Low Input is                                                                                                                            |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |

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|       |   | showing as INACTIVE                                                    |  |    |   |                           |       |
| 10120 | A | Select the switch '57S2' to position 0                                 |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10121 | R | Temperature is set to 18°C                                             |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10122 | A | Select the switch '57S2' to position 1                                 |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10123 | R | Temperature is set to 20°C                                             |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10124 | A | Select the switch '57S2' to position 2                                 |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10125 | R | Temperature is set to 22°C                                             |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10126 | A | Select the switch '57S2' to position 3                                 |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10127 | R | Temperature is set to 24°C                                             |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10128 | A | Select the switch '57S2' to position 4                                 |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10129 | R | Temperature is set to 26°C                                             |  | OK |   | Tebogo Mtombeni - 529938  | Train |
| 10130 | I | Cabin Footrest Heater Test on TC2                                      |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10132 | R | Foot Heater is switch Off                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10133 | A | Simulate a failure of the heater by opening circuit breaker 57Q2       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10134 | A | Command '57S3' pushbutton                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 1.0 |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10136 | R | Foot Heater is switch Off                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10137 | A | Release '57S3' pushbutton                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10138 | A | Close 57Q2                                                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10139 | A | Command '57S3' pushbutton                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10141 | R | Foot Heater is switch ON                                               |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                                                                            |                                                                                     |    |  |                          |       |
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| 10142 | I | Emergency Ventilation Mode                                                                                                                                 |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10143 | R | All HVACs are working in NORMAL condition                                                                                                                  |    | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10144 | A | Switch off the catenary voltage 3kV                                                                                                                        |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10145 | R | Both Auxiliary Converter stop to work                                                                                                                      |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10146 | R | 400 V AC is not present on train                                                                                                                           |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10147 | R | No high voltage power is available on HVAC unit to operate Ventilation and Cooling or Heating.                                                             |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10148 | R | All HVAC units and Cab HVAC units stop                                                                                                                     |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10149 | R | After about 45 seconds without 400V, Auxiliary Converter will generate 400V from Train Batteries with an inverter.                                         |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10150 | R | After this time about (45s) All HVAC units will operate in "Emergency Ventilation"                                                                         |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10151 | A | Switch on the 3kV on the catenary                                                                                                                          |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10152 | R | Now, 400V AC is available by Auxiliary Converter                                                                                                           |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10153 | R | All HVAC units and Cab HVAC units only operate Ventilation with maximum fresh airflow then change to a specific mode based on the surrounding temperatures |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10154 | I | End of Test                                                                                                                                                |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 13 – Driving Command

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### 13.1 Instructions list

### 13.1.1 030\_DRC-Driving Command

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                   | File | Result status | Result value | Operator                | Vehicle |
|-------|------|---------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Driving command = SPP 30                                      |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                            |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Train should be prepared with High voltage                    |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Deadman override switch 60S1 must be in OVERRIDE position     |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Driving command TC1 side                                      |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Direction Selector Switch TC1                                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | A    | Put the Direction selector switch 30A1.S2 in NEUTRAL position |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10011 | R    | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10014 | R    | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0            |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10016 | R    | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 0.0   |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10017 | R    | Read Defined Variable [TT] (MPU1)li_drc_tc1dsreverser1 = 0.0  |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                               |  |    |   |                         |       |
|-------|---|---------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10018 | A | Put the Direction selector switch 30A1.S2 in FORWARD position |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10019 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10020 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10021 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10022 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 1.0            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10023 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10024 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 1.0            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10025 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 1.0            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10026 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 1.0   |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsreverser1 = 0.0  |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10029 | A | Put the Direction selector switch 30A1.S2 in REVERSE position |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10030 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10031 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10032 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10033 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10034 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10035 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                 |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0                           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0                           |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0                  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 1.0                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10040 | I | Reduced Power Test TC1                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10041 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10042 | I | Driving mode switch in SPEED CONTROL<br>mode                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10045 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10046 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0               |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10049 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10050 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10053 | A | Put the driving mode switch to EFFORT<br>mode                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10054 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



|       |   |                                                                                 |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0               |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10057 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10060 | I | It not possible to activate reduced power<br>in depot or coupling mode          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10061 | A | Put the driving mode switch to DEPOT<br>mode                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10062 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10065 | A | Release the button 30S2                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10066 | A | Put the driving mode switch to COUPLING<br>mode                                 |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10067 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10070 | A | Release the button 30S2                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10071 | I | Master Controller / No Brake                                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10072 | I | The direction selector switch 30A1.S2<br>must be in NEUTRAL position            |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10073 | I | The Master controller of Traction/Brake<br>should be on OFF position            |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                             |  |    |      |                            |       |
|-------|---|-----------------------------------------------------------------------------|--|----|------|----------------------------|-------|
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorclosedr1 = 0.0         |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10075 | I | The Traction Interlock Override Switch<br>31S1 should be in NORMAL position |  | OK |      | Celiwe Sokhela -<br>491462 | Train |
| 10076 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                        |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10077 | R | LED 31H1 is OFF on the alarm module                                         |  | OK |      | Celiwe Sokhela -<br>491462 | Train |
| 10078 | R | LED 44H4 is "ON" on the alarm module                                        |  | OK |      | Celiwe Sokhela -<br>491462 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                       |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                       |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                       |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                       |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                       |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                       |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10091 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369    |  | OK | 5952 | Celiwe Sokhela -<br>491462 | Train |
| 10092 | R | Read Min/Max [TT]                                                           |  | OK | 5952 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                           |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|----------------------------|-------|
|       |   | (MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369                       |  |    |   |                            |       |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnocostr1 = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnocostr2 = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10101 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10103 | R | LED 44H4 is OFF on the alarm module                                       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10104 | R | LED 31H1 is "ON" on the alarm module                                      |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                    |  |    |      |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------|--|----|------|----------------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                                               |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                                               |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10117 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoisionch1 :<br>5479<= x <= 6369                            |  | OK | 5952 | Celiwe Sokhela -<br>491462 | Train |
| 10118 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoisionch2 :<br>5479<= x <= 6369                            |  | OK | 5952 | Celiwe Sokhela -<br>491462 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractio1 = 0.0                                     |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractio2 = 0.0                                     |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0                          |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0                          |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10127 | I | For safety purposes ENSURE that NO one<br>is working NEAR, OUTSIDE or on the<br>DOORS of the Train |  | OK |      | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                       |  |    |   |                         |       |
|-------|---|-----------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10128 | A | Press Automatic Start Button to Drop the Pantographs                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10129 | A | Timer 15.0 S                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10134 | A | Put the Master controller of Traction/Brake in 100% TRACTION position |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                            |  |    |       |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10146 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10147 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Celiwe Sokhela -<br>491462 | Train |
| 10148 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30912 | Celiwe Sokhela -<br>491462 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 1.0            |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 1.0            |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0              |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0              |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10157 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(BCU1)LI_Traction = 0.0                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 0.0                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                           |  |    |      |                            |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|----------------------------|-------|
| 10163 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                      |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                      |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10170 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369  |  | OK | 5968 | Celiwe Sokhela -<br>491462 | Train |
| 10171 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369  |  | OK | 5968 | Celiwe Sokhela -<br>491462 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0           |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0           |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10179 | A | Put the direction selector switch in<br>REVERSE position                  |  | OK |      | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                     |  |    |       |                         |       |
|-------|---|---------------------------------------------------------------------|--|----|-------|-------------------------|-------|
| 10180 | A | Put the Master controller of Traction/Brake in 100% BRAKE position  |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10181 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10182 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10183 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0                 |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10184 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0                 |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10185 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0                 |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10186 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0                 |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10187 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10188 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10189 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10190 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10191 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10192 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10193 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoitionch1 : 29183<= x <= 31102 |  | OK | 30816 | Celiwe Sokhela - 491462 | Train |
| 10194 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoitionch2 : 29183<= x <= 31102 |  | OK | 30928 | Celiwe Sokhela - 491462 | Train |
| 10195 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mtractionr1 = 0.0        |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10196 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mtractionr2 = 0.0        |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10197 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 1.0          |  | OK | 1     | Celiwe Sokhela - 491462 | Train |



|       |   |                                                                               |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10203 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(BCU1)LI_Traction = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(BCU1)LI_noBrake = 0.0                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(BCU2)LI_noBrake = 0.0                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                            |  |    |       |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10216 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Celiwe Sokhela -<br>491462 | Train |
| 10217 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30928 | Celiwe Sokhela -<br>491462 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0            |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0            |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>1.0  |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>1.0  |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10226 | I | Driving command TC2 side                                                   |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10227 | I | Direction Selector Switch TC2                                              |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10228 | A | Switch active cab to TC2                                                   |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10229 | A | Press 21S1 to raise the Pantographs                                        |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10230 | A | Press 22S11 to close the HSCB                                              |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10231 | A | Put the Direction selector switch 30A1.S2<br>in NEUTRAL position           |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10233 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10240 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0            |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10249 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                 |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10251 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0                           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0                           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0                           |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0                           |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0                           |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0                           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10258 | A | Put Master Controller in OFF position                                           |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10259 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10260 | I | Reduced Power Test TC2                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10261 | A | Put the driving mode switch in SPEED<br>CONTROL mode                            |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10262 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0               |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10265 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10266 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10267 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 0.0              |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10270 | A | Put the driving mode switch to EFFORT<br>mode                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                              |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10271 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10272 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10273 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 1.0               |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10274 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10275 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10276 | I | It not possible to activate reduced power in depot or coupling mode          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10277 | A | Put the driving mode switch to DEPOT mode                                    |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10278 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10279 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10280 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10281 | A | Release the button 30S2                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10282 | A | Put the driving mode switch to COUPLING mode                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10283 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10284 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10285 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10286 | A | Release the button 30S2                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10287 | I | Master Controller/ No Brake                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10288 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10289 | I | The Master controller of Traction/Brake should be on OFF position            |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                          |  |    |      |                         |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|-------------------------|-------|
| 10290 | I | Emergency Brake must be applied                                          |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10291 | I | All doors should be closed                                               |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10292 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10293 | R | LED 31H1 is OFF on the alarm module                                      |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10294 | R | LED 44H4 is "ON" on the alarm module                                     |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                    |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                    |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                   |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10307 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5968 | Celiwe Sokhela - 491462 | Train |
| 10308 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5968 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractio1 = 0.0         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractio2 = 0.0         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10317 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10318 | I | No emergency brake is applied                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10319 | R | LED 44H4 is OFF on the alarm module                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10320 | R | LED 31H1 is "ON" on the alarm module                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10321 | R | Relay 31K1 and 31K2 are energized                                      |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10325 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                    |  |    |      |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------|--|----|------|----------------------------|-------|
| 10328 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                                               |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                                               |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10334 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369                           |  | OK | 5968 | Celiwe Sokhela -<br>491462 | Train |
| 10335 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369                           |  | OK | 5968 | Celiwe Sokhela -<br>491462 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0                                    |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0                                    |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0                                      |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0                          |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0                          |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10344 | I | For safety purposes ENSURE that NO one<br>is working NEAR, OUTSIDE or on the<br>DOORS of the Train |  | OK |      | Celiwe Sokhela -<br>491462 | Train |



|       |   |                                                                       |  |    |   |                         |       |
|-------|---|-----------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10345 | A | Press Automatic Start Button to Drop the Pantographs                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10346 | A | Timer 15.0 S                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10349 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10351 | A | Put the Master controller of Traction/Brake in 100% TRACTION position |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10361 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                            |  |    |       |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10363 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10364 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30864 | Celiwe Sokhela -<br>491462 | Train |
| 10365 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30848 | Celiwe Sokhela -<br>491462 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 1.0            |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 1.0            |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0              |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0              |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10374 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)LI_Traction = 0.0                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 0.0                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                           |  |    |      |                            |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|----------------------------|-------|
| 10380 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                      |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                      |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     |  | OK | 1    | Celiwe Sokhela -<br>491462 | Train |
| 10387 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369  |  | OK | 5968 | Celiwe Sokhela -<br>491462 | Train |
| 10388 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369  |  | OK | 5968 | Celiwe Sokhela -<br>491462 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0           |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0           |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0             |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0 |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0 |  | OK | 0    | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                      |  |    |       |                         |       |
|-------|---|----------------------------------------------------------------------|--|----|-------|-------------------------|-------|
| 10397 | A | Put the Master controller of Traction/Brake in 100% BRAKE position   |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10398 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10399 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10400 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10401 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10402 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10403 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0                  |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10404 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0                    |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10405 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0                    |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10406 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10407 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10408 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10409 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0                   |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10410 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 29183<= x <= 31102 |  | OK | 30864 | Celiwe Sokhela - 491462 | Train |
| 10411 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 29183<= x <= 31102 |  | OK | 30848 | Celiwe Sokhela - 491462 | Train |
| 10412 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractior1 = 0.0         |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10413 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractior2 = 0.0         |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10414 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 1.0           |  | OK | 1     | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                               |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10420 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10428 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10429 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10430 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10431 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                            |  |    |       |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10432 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10433 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30864 | Celiwe Sokhela -<br>491462 | Train |
| 10434 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30864 | Celiwe Sokhela -<br>491462 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0            |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0            |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10438 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0              |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>1.0  |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>1.0  |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10443 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10444 | A | Put the direction switch to NEUTRAL<br>position                            |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10445 | A | Close HSCB using button 22S11                                              |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10446 | I | End of Test                                                                |  | OK |       | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 14 – Holding and Parking Brake

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### 14.1 Instructions list



### 14.1.1 045\_PBK-Holding and Parking Brake

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                              | File | Result status | Result value | Operator                | Vehicle |
|-------|------|------------------------------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Parking brake SPP= 045                                                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                                       |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Train must be properly scotched with sufficient scotch blocked to prevent it from moving |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Automatic parking brake application                                                      |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Train in LV ready with active cab on TC1                                                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | A    | Release parking brake using the switch 45S1                                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | R    | Verify on the DDU that all cars have parking brake released                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | A    | Drain the air from the main pipe until it reaches 0bar                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Main pipe pressure is 0bar on the Pneumatic indicator                                    |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | R    | Verify on the DDU that all cars have parking brake applied                               |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | Lamp 45H2 is "ON" on the alarm module                                                    |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                         |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                         |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_RELEASE = 0.0    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                               |  |    |   |                              |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Celiwe Sokhela -<br>491462   | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Celiwe Sokhela -<br>491462   | Train |
| 10038 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                  |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10039 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                  |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10040 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                  |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10041 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                  |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10042 | A | Press the automatic start button 20S1                                                         |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                              |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462   | Train |
| 10045 | R | After 10 minutes, the air in the main pipe<br>is 10bar +/-0.2bar                              |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10046 | A | Turn the switch 45S1 to release parking<br>brake                                              |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10047 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10048 | I | Parking brake is released in all cars                                                         |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10049 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10050 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure |  | OK |   | Celiwe Sokhela -<br>491462   | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462   | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462   | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                               |  | OK | 1 | Celiwe Sokhela -<br>491462   | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                               |  | OK | 1 | Celiwe Sokhela -<br>491462   | Train |

|       |   |                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10073 | I | Remote parking brake application TC1                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                     |  |    |      |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------|--|----|------|-------------------------|-------|
| 10074 | A | Turn the switch 45S1 to parking brake release                                                                       |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10075 | R | Lamp 45H2 is OFF on the alarm module                                                                                |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10076 | R | Measure the pressure of the test point C1.11 on TC1, test point must be set to 6 bar<br>Read Undefined Value : x () |  | OK | 6.09 | Celiwe Sokhela - 491462 | Train |
| 10077 | R | Measure the pressure of the test point C2.11 on M4, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 6.09 | Celiwe Sokhela - 491462 | Train |
| 10078 | R | Measure the pressure of the test point C2.11 on M1, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 5.99 | Celiwe Sokhela - 491462 | Train |
| 10079 | R | Measure the pressure of the test point C2.11 on M2, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 5.92 | Celiwe Sokhela - 491462 | Train |
| 10080 | R | Measure the pressure of the test point C2.11 on M3, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 6.05 | Celiwe Sokhela - 491462 | Train |
| 10081 | R | Measure the pressure of the test point C1.11 on TC2, test point must be set to 6 bar<br>Read Undefined Value : x () |  | OK | 5.98 | Celiwe Sokhela - 491462 | Train |
| 10082 | A | Turn the switch 45S1 to apply parking brake                                                                         |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10083 | R | Lamp 45H2 is ON on the alarm module                                                                                 |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10084 | R | Measure the pressure of the test point C1.11 on TC1, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)     |  | OK | 1.64 | Celiwe Sokhela - 491462 | Train |
| 10085 | R | Measure the pressure of the test point C1.11 on M4, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 2.03 | Celiwe Sokhela - 491462 | Train |
| 10086 | R | Measure the pressure of the test point C2.11 on M1, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 2.06 | Celiwe Sokhela - 491462 | Train |
| 10087 | R | Measure the pressure of the test point C2.11 on M2, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 2.32 | Celiwe Sokhela - 491462 | Train |
| 10088 | R | Measure the pressure of the test point C2.11 on M3, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 2.16 | Celiwe Sokhela - 491462 | Train |
| 10089 | R | Measure the pressure of the test point C1.11 on TC2, test point must below 4.8                                      |  | OK | 1.71 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------|--|----|---|----------------------------|-------|
|       |   | bar<br>Result Max : x <= 5 (Bar)                                 |  |    |   |                            |       |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0   |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                                   |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10108 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10112 | I | Parking brake manual isolation                                                                                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10113 | I | TC1                                                                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10114 | A | Put the switch C1.3.2 in ISOLATION<br>position on TC1                                                                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0                                                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 1.0                                                                    |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 1.0                                                                           |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10119 | A | Put the switch C1.3.2 in NORMAL<br>position on TC1                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0                                                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10121 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working) |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 0.0                                                                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0                                                                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0                                                                           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10125 | I | M4                                                                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10126 | A | Put the switch C2.3.2 for in ISOLATION<br>position                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                                  |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10127 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m4parkbrakeisol = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10131 | A | Put the switch C2.3.2 in NORMAL<br>position on M4                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10133 | R | Verify on the DDU that parking brake is<br>still released                                                                        |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10134 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m4parkbrakeisol = 0.0                                                                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10138 | I | M1                                                                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10139 | A | Put the switch C2.3.2 for in ISOLATION<br>position                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10143 | A | Put the switch C2.3.2 in NORMAL<br>position on M1                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10144 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



|       |   |                                                                                                                                  |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 0.0                                                                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10148 | I | M2                                                                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10149 | A | Put the switch C2.3.2 in ISOLATION<br>position on M2                                                                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10153 | A | Put the cock C2.3.2 for in NORMAL<br>position on M2                                                                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10154 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 0.0                                                                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10158 | I | M3                                                                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10159 | A | Put the switch C2.3.2 in ISOLATION<br>position on M3                                                                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                             |  |    |   |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10163 | A | Put the cock C2.3.2 for in NORMAL position on M3                                                                            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10164 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10165 | R | Read Defined Variable [TT] (MPU1)li_pbk_m3parkbrakeisol = 0.0                                                               |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10166 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisoldc = 0.0                                                                |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10167 | I | TC2                                                                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10168 | A | Put the switch C1.3.2 in ISOLATION position on TC2                                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10169 | R | Read Defined Variable [TT] (TBCU3)LI_PARK_BR_DC = 0.0                                                                       |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakelsolDC = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc2parkbrakeisol = 1.0                                                              |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10172 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 1.0                                                                        |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10173 | A | Put the switch C1.3.2 in NORMAL position on TC2                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10174 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_RELEASE = 0.0                                                                   |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10175 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working) |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakelsolDC = 0.0                                                                 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc2parkbrakeisol = 0.0                                                              |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10178 | I | Remote parking brake application TC2                                                                                        |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10179 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 0.0                                                                        |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10180 | A | Switch active cab to TC2                                                                                                    |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                          |  |    |      |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------|--|----|------|-------------------------|-------|
| 10181 | A | Turn the switch 45S1 to apply parking brake                                                                              |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10182 | R | Lamp 45H2 is ON on the alarm module                                                                                      |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10183 | R | Measure the pressure of the test point C1.11 on TC1, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar) |  | OK | 1.64 | Celiwe Sokhela - 491462 | Train |
| 10184 | R | Measure the pressure of the test point C2.11 on M4, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 6.09 | Celiwe Sokhela - 491462 | Train |
| 10185 | R | Measure the pressure of the test point C2.11 on M1, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 5.99 | Celiwe Sokhela - 491462 | Train |
| 10186 | R | Measure the pressure of the test point C2.11 on M2, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 5.92 | Celiwe Sokhela - 491462 | Train |
| 10187 | R | Measure the pressure of the test point C2.11 on M3, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 6.05 | Celiwe Sokhela - 491462 | Train |
| 10188 | R | Measure the pressure of the test point C1.11 on TC2, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar) |  | OK | 5.98 | Celiwe Sokhela - 491462 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                                                         |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                                                         |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0                                                          |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0                                                          |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0                                                         |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0                                                         |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0                                                           |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0                                                           |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0                                                           |  | OK | 1    | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                               |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0                                |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisolDC = 0.0                               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisolDC = 0.0                               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisolDC = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisolDC = 0.0                               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisolDC = 0.0                               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10205 | A | Turn the switch 45S1 to release parking<br>brake                                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10206 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10207 | I | Parking brake is released in all cars                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10208 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                               |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                               |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                 |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisolDC = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisolDC = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisolDC = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisolDC = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10225 | I | End of Test                                                     |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 15 – Service Brake

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### 15.1 Instructions list

### 15.1.2 040\_SUP-Car Suspension

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                | File | Result status | Result value | Operator                | Vehicle |
|-------|------|--------------------------------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Car suspension Test                                                                        |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10002 | I    | Initial Conditions                                                                         |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10003 | I    | Car suspension is not isolated in all cars                                                 |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10004 | I    | Air in main pipe is 10 bar                                                                 |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10005 | I    | TC1                                                                                        |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10006 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 313.4        | Nqobile Chirwa - 484648 | Train   |
| 10007 | R    | Read Min/Max [TT]<br>(MPU1)bcu1_bcususpess : 311<= x <= 371                                |      | OK            | 312.89       | Nqobile Chirwa - 484648 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspisodc = 0.0                                   |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10009 | A    | Close the isolation cock C1.10                                                             |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspisodc = 1.0                                   |      | OK            | 1            | Nqobile Chirwa - 484648 | Train   |
| 10011 | R    | Check Pressure on test point C1.11.2 = Obar<br>Read Undefined Value : x ()                 |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10012 | A    | Open the isolation cock C1.10                                                              |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10013 | A    | Check all test point covers have been put back in place in the brake panel and suspension. |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10014 | I    | M4                                                                                         |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10015 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 272.2        | Nqobile Chirwa - 484648 | Train   |
| 10016 | R    | Read Min/Max [TT]<br>(MPU1)tbcu4_bcususpess : 260<= x <= 320                               |      | OK            | 273.38       | Nqobile Chirwa - 484648 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspisodc = 0.0                                  |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10018 | A    | Close the isolation cock C2.10                                                             |      | OK            |              | Nqobile Chirwa - 484648 | Train   |



|       |   |                                                                                            |  |    |        |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|-------------------------|-------|
| 10019 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 1.0                                   |  | OK | 1      | Nqobile Chirwa - 484648 | Train |
| 10021 | A | Open the isolation cock C2.10                                                              |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10022 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10023 | I | M1                                                                                         |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10024 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 292.4  | Nqobile Chirwa - 484648 | Train |
| 10025 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcususppress : 271<= x <= 331                             |  | OK | 292.65 | Nqobile Chirwa - 484648 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 0.0                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10027 | A | Close the isolation cock C2.10                                                             |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10028 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 1.0                                   |  | OK | 1      | Nqobile Chirwa - 484648 | Train |
| 10030 | A | Open the isolation cock C2.10                                                              |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10031 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10032 | I | M2                                                                                         |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10033 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 299.6  | Nqobile Chirwa - 484648 | Train |
| 10034 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcususppress : 271<= x <= 331                             |  | OK | 299.54 | Nqobile Chirwa - 484648 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 0.0                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10036 | A | Close the isolation cock C2.10                                                             |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10037 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                                  |    |        |                            |       |
|-------|---|--------------------------------------------------------------------------------------------------|----|--------|----------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 1.0                                         | OK | 1      | Nqobile Chirwa -<br>484648 | Train |
| 10039 | A | Open the isolation cock C2.10                                                                    | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10040 | A | Check all test point covers have been put<br>back in place in the brake panel and<br>suspension. | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10041 | I | M3                                                                                               | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10042 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                            | OK | 272.1  | Nqobile Chirwa -<br>484648 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcususppress : 260<= x <=<br>320                                | OK | 273.89 | Nqobile Chirwa -<br>484648 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 0.0                                         | OK | 0      | Nqobile Chirwa -<br>484648 | Train |
| 10045 | A | Close the isolation cock C2.10                                                                   | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10046 | R | Check Pressure on test point C2.11.2 =<br>Obar<br>Read Undefined Value : x ()                    | OK | 0      | Nqobile Chirwa -<br>484648 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 1.0                                         | OK | 1      | Nqobile Chirwa -<br>484648 | Train |
| 10048 | A | Open the isolation cock C2.10                                                                    | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10049 | A | Check all test point covers have been put<br>back in place in the brake panel and<br>suspension. | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10050 | I | TC2                                                                                              | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10051 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                            | OK | 318.4  | Nqobile Chirwa -<br>484648 | Train |
| 10052 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuSuspPress : 311<= x<br><= 371                                 | OK | 317.83 | Nqobile Chirwa -<br>484648 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SuspIsoDC = 0.0                                         | OK | 0      | Nqobile Chirwa -<br>484648 | Train |
| 10054 | A | Close the isolation cock C1.10                                                                   | OK |        | Nqobile Chirwa -<br>484648 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SuspIsoDC = 1.0                                         | OK | 1      | Nqobile Chirwa -<br>484648 | Train |
| 10056 | R | Check Pressure on test point C1.11.2 =<br>Obar<br>Read Undefined Value : x ()                    | OK | 0      | Nqobile Chirwa -<br>484648 | Train |
| 10057 | A | Open the isolation cock C1.10                                                                    | OK |        | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                            |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10058 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10059 | I | End of Test                                                                                |  | OK |  | Nqobile Chirwa - 484648 | Train |

### 15.1.1 040\_SBK-Service Brake

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                           | File | Result status | Result value | Operator                | Vehicle |
|-------|------|-----------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Service Brake SPP=040 SBK                                                                                             |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10002 | I    | Initial Conditions                                                                                                    |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10003 | I    | Emergency brake button 44S1 is released in both TC1 and TC2                                                           |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10004 | I    | Pressure on the main pipe should be higher than 7 bar                                                                 |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10005 | I    | The ERTMS switch 62S1 is in ISOLATION position in both TC1 and TC2                                                    |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10006 | I    | The Deadman switch 60S1 is in OVERRIDE position in both TC1 and TC2                                                   |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10007 | I    | Driving mode should be selected as COUPLE/WASH in both TC1 and TC2                                                    |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10008 | I    | Train has sufficient scotch blocks to prevent it from moving                                                          |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10009 | I    | Ensure that the propulsion system is inhibited to prevent movement when the master controller is in TRACTION position |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10010 | I    | Start of Test                                                                                                         |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10011 | I    | Brake application / release                                                                                           |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10012 | A    | Activate the cab on TC1                                                                                               |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10013 | I    | To begin test, the EPC life signal must be live                                                                       |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10014 | R    | Read Defined Variable [TT] (BCU1)LI_REGULATOR_STAT = 1.0                                                              |      | OK            | 1            | Nqobile Chirwa - 484648 | Train   |
| 10015 | R    | Read Defined Variable [TT] (BCU2)LI_REGULATOR_STAT = 1.0                                                              |      | OK            | 1            | Nqobile Chirwa - 484648 | Train   |
| 10016 | R    | Read Defined Variable [TT] (TBCU1)LI_REGULATOR_STAT = 1.0                                                             |      | OK            | 1            | Nqobile Chirwa - 484648 | Train   |

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|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Nqobile Chirwa -<br>484648 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Nqobile Chirwa -<br>484648 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Nqobile Chirwa -<br>484648 | Train |
| 10020 | A | Put the direction selector switch in<br>FORWARD position                                                                                                                                                                                                                                                                           |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10021 | R | Emergency brake is released                                                                                                                                                                                                                                                                                                        |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10022 | R | LED 40H1 is OFF on the alarm module                                                                                                                                                                                                                                                                                                |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10023 | A | Move slowly the master controller from<br>OFF position to maximum brake position<br>and check the following items<br><br>- Variables on brake software as<br>demanded below.                                                                                                                                                       |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10024 | I | The pressure measured below can have<br>the values changed after the brake<br>adjustment during performance test. The<br>brake pressure should increase with<br>respect to the master controller position<br>and there should be no sudden jumps in<br>the pressure when observing the PWM<br>signal on the DDU maintenance screen |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10025 | I | All the brake discs apply pressure on the<br>wheels, it is necessary to go bogie by<br>bogie to physically check if the brake pads<br>are in contact with the wheel                                                                                                                                                                |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10026 | R | SBTP TC1<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                                                                                                                                                                                                                                |  | OK | 1.371 | Nqobile Chirwa -<br>484648 | Train |
| 10027 | R | Brake discs apply pressure on car TC1                                                                                                                                                                                                                                                                                              |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10028 | R | SBTP M4<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.65  | Nqobile Chirwa -<br>484648 | Train |
| 10029 | R | Brake discs apply pressure on car M4                                                                                                                                                                                                                                                                                               |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10030 | R | SBTP M1<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.52  | Nqobile Chirwa -<br>484648 | Train |
| 10031 | R | Brake discs apply pressure on car M1                                                                                                                                                                                                                                                                                               |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10032 | R | SBTP M2<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.31  | Nqobile Chirwa -<br>484648 | Train |
| 10033 | R | Brake discs apply pressure on car M2                                                                                                                                                                                                                                                                                               |  | OK |       | Nqobile Chirwa -<br>484648 | Train |
| 10034 | R | SBTP M3<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.43  | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                              |  |    |        |                         |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------|--|----|--------|-------------------------|-------|
| 10035 | R | Brake discs apply pressure on car M3                                                                                         |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10036 | R | SBTP TC2<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                          |  | OK | 1.53   | Nqobile Chirwa - 484648 | Train |
| 10037 | R | Brake discs apply pressure on car TC2                                                                                        |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10038 | I | The pressure measured below should be approximately equal to what is observed on the PWM signa on the DDU maintenance screen |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10039 | R | Read Min/Max [TT]<br>(MPU1)bcu1_bcupipepress : 127<= x <= 167                                                                |  | OK | 141.06 | Nqobile Chirwa - 484648 | Train |
| 10040 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuBPipePress : 127<= x <= 167                                                               |  | OK | 140.47 | Nqobile Chirwa - 484648 | Train |
| 10041 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcupipepress : 129<= x <= 169                                                               |  | OK | 136.62 | Nqobile Chirwa - 484648 | Train |
| 10042 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcupipepress : 129<= x <= 169                                                               |  | OK | 140.08 | Nqobile Chirwa - 484648 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcupipepress : 129<= x <= 169                                                               |  | OK | 139.58 | Nqobile Chirwa - 484648 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu4_bcupipepress : 129<= x <= 169                                                               |  | OK | 142.05 | Nqobile Chirwa - 484648 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                  |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                  |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                  |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                  |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                               |  | OK | 0      | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                                                                                                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10053 | R | Check the pressure on the brake pressure<br>gauge on TC1<br>Read Undefined Value : x ()                                                                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10054 | R | Check the pressure on the brake pressure<br>gauge on TC2<br>Read Undefined Value : x ()                                                                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10055 | I | The pressure showed on pressure gauge<br>(driver desk) is the same as the measured<br>on the test point BCTP of the car TC.                                                                                      |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10056 | A | Move slowly the master controller from<br>100% BRAKE position to OFF position.<br>Observe the PWM behaviour of the brake<br>cylinder pressure. it may be necessary to<br>repeat the test until you are satisfied |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10057 | I | There must not have sudden release of<br>pressure while the master controller is<br>slowly moved to OFF position.                                                                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10058 | R | Pressure on BCTP (Car TC) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10059 | R | Pressure on SBTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10060 | R | Pressure on BCTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10061 | R | Pressure on SBTP all TC cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10062 | I | It is necessary to go bogie by bogie to<br>verify that brake pads are not in contact<br>with the wheels                                                                                                          |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10063 | R | Brake discs do not apply pressure on car<br>TC1                                                                                                                                                                  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10064 | R | Brake discs do not apply pressure on car<br>M4                                                                                                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10065 | R | Brake discs do not apply pressure on car<br>M1                                                                                                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10066 | R | Brake discs do not apply pressure on car<br>M2                                                                                                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10067 | R | Brake discs do not apply pressure on car<br>M3                                                                                                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                             |  |    |   |                         |       |
|-------|---|-------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10068 | R | Brake discs do not apply pressure on car TC2                |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10069 | I | Holding Brake                                               |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10070 | A | Put the master controller on 100% BRAKE position            |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10083 | A | Put the master controller on OFF position                   |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0 |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0 |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0 |  | OK | 1 | Nqobile Chirwa - 484648 | Train |



|       |   |                                                             |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10096 | A | Put the driving mode switch 30S1 to<br>EFFORT position      |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10097 | A | Put the master controller on 100% BRAKE<br>position         |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                             |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10110 | A | Position the master controller on OFF<br>position           |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                             |  |    |   |                         |       |
|-------|---|-------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10123 | A | Position the driving mode switch 30S1 to DEPOT position     |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10124 | A | Position the master controller on 100% BRAKE position       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10137 | A | Position the master controller on OFF position              |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                   |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10150 | A | Return the driving mode switch 30S1 to<br>COUPLE / WASH position  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10151 | A | Position the master controller in 100%<br>BRAKE position          |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10152 | I | Brake isolation through the isolation cock                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10153 | I | TC1 service brake manual isolation                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10154 | A | Close the isolation cock C1.3.1                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10155 | R | Lamp 40H2 is ON on the alarm mode for<br>EB reduced               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0    |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10157 | A | Put the manometer test point to BCTP                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10158 | R | Pressure on BCTP decreases slowly until it<br>reaches +/- 0.2 bar |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10159 | R | Brake discs are not in contact with wheels<br>on TC1 bogies       |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                    |  |    |   |                            |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 1.0     |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldc = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0     |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 1.0 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                                           |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0                                                                                                |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10184 | A | Open the isolation cock C1.3.1                                                                                                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10185 | R | Lamp 40H2 is OFF on the alarm mode for<br>EB reduced                                                                                                      |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10187 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in TC1 until it<br>reaches 1,47bar (+/-0,2bar) |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10188 | R | Brake discs are in contact with wheels on<br>TC1 bogies                                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                              |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                           |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10207 | A | Remove manometer on TC1 BCTP point                                                                                                           |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10208 | I | M4 service brake manual isolation                                                                                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10209 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10210 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 886: "Mechanical Brake<br>manually isolated on M4" |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10211 | R | Lamp 40H2 is "ON" on the alarm mode<br>for EB reduced                                                                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10212 | A | Put manometer on M4 BCTP point                                                                                                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10213 | R | Pressure measured on test point BCTP<br>decreases slowly until 0 bar (+/-0,2bar)                                                             |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10214 | R | Brake discs are not in contact with wheels<br>on M4 bogies                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                    |  |    |   |                            |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 1.0    |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 1.0  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0        |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10233 | A | Open the isolation cock C2.3.1                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |



|       |   |                                                                                                                                            |  |    |   |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10234 | R | Lamp 40HZ is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10235 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M4 car reaches 1,49bar (+/-0,2bar) |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10236 | R | Brake discs are in contact with wheels on M4 bogies                                                                                        |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0                                                                             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10249 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                                                                              |  |    |   |                            |       |
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| 10252 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10255 | A | Remove manometer on M4 BCTP point                                                                                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10256 | I | M1 service brake manual isolation                                                                                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10257 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10258 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 883: "Mechanical Brake<br>manually isolated on M1" |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10259 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module                                                                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10260 | A | Put manometer on M1 BCTP point                                                                                                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10261 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until 0bar (+/-0,2bar)                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10262 | R | Brake discs are not in contact with wheels<br>on M1 bogies                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 1.0                                                                              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                           |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                                     |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 1.0                                                                                   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10274 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0                                                                                         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10281 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10282 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10283 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in M1 car reaches<br>1,49bar (+/-0,2bar) |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10284 | R | Brake discs are in contact with wheels on<br>M1 bogies                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10286 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                    |  |    |   |                            |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10288 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10304 | A | Remove manometer on M1 BCTP point                                  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10305 | I | M2 service brake manual isolation                                  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10306 | A | Close the isolation cock C2.3.1                                    |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                          |  |    |   |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10307 | R | Lamp 40H2 is ON for EB reduced on the alarm module                                                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10308 | A | Put manometer on M2 BCTP point                                                                           |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10309 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar) |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 1.0                                          |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10311 | R | Brake discs are not in contact with wheels on M2 bogies                                                  |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                           |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0                                           |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                          |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 1.0                                        |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                          |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                          |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                       |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                        |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                        |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                        |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                       |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                              |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0                                              |  | OK | 1 | Nqobile Chirwa - 484648 | Train |

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|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10325 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10329 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10330 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10331 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in M2 car reaches<br>1,49bar (+/-0,2bar) |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10332 | R | Brake discs are in contact with wheels on<br>M2 bogies                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                              |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10348 | A | Remove manometer on M2 BCTP point                                                                                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10349 | I | M3 Service brake manual isolation                                                                                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10350 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10351 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 885: "Mechanical Brake<br>manually isolated on M3" |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10352 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module                                                                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10353 | A | Put the manometer on the BCTP test point<br>of M3                                                                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10354 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until Obar (+/-0,2bar)                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10355 | R | Brake discs are not in contact with wheels<br>on M3 bogies                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0                                                                               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 1.0                                                                              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                    |  |    |   |                            |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10361 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 1.0  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0        |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 1.0    |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |



|       |   |                                                                                                                                                     |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10380 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10381 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10382 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in M3 car reaches<br>1,49bar (+/-0,2bar) |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10383 | R | Brake discs are in contact with wheels on<br>M3 bogies                                                                                              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                                |  |    |   |                            |       |
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| 10397 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10402 | A | Remove the manometer from the BCTP<br>test point                                                                                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10403 | I | TC2 Service brake manual isolation                                                                                                             |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10404 | A | Close the isolation cock C1.3.1                                                                                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10405 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 882 : "Mechanical Brake<br>manually isolated on TC2" |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10406 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module                                                                                          |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10407 | A | Put manometer on BCTP test point                                                                                                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10408 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until Obar (+/-0,2bar)                                 |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10409 | R | Brake discs are not in contact with wheels<br>on TC2 bogies                                                                                    |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 1.0                                                                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                            |  |    |   |                            |       |
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| 10415 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10420 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 1.0                                                                         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0                                                                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10428 | A | Open the isolation cock C1.3.1                                                                                                             |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10429 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10430 | A | Put the manometer on the BCTP point in TC2                                                                                                 |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10431 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in TC car reaches 1,47bar (+/-0,2bar) |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10432 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

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| 10433 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10434 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10438 | R | Brake discs are in contact with wheels on<br>TC2 bogies            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldc = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10443 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10444 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10445 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10447 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10448 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10449 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10450 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                  |  |    |   |                            |       |
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| 10451 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10452 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10453 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10454 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10455 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10456 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10457 | A | Remove the manometer from the BCTP<br>point of TC2                                                                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10458 | I | BCU Fault Test                                                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10459 | I | Emergency brake must be applied to force<br>the variables mentioned.<br>After forcing the variables, release<br>emergency brake. |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10460 | A | Position the master controller on OFF<br>position                                                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10461 | A | Put the direction selector switch in<br>Neutral position                                                                         |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10462 | A | Force [TT] (BCU1)LO_BRK_FLT = 0.0                                                                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10463 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 0.0                                                                     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10464 | A | Release [TT] (BCU1)LO_BRK_FLT                                                                                                    |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10465 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 1.0                                                                     |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10466 | A | Force [TT] (TBCU4)LO_BRK_FLT = 0.0                                                                                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10467 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 0.0                                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10468 | A | Release [TT] (TBCU4)LO_BRK_FLT                                                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10469 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 1.0                                                                      |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                                                                      |  |    |   |                         |       |
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| 10470 | A | Force [TT] (TBCU2)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10471 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 0.0                                                                                                             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10472 | A | Release [TT] (TBCU2)LO_BRK_FLT                                                                                                                                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10473 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 1.0                                                                                                             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10474 | A | Force [TT] (TBCU1)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10475 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 0.0                                                                                                             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10476 | A | Release [TT] (TBCU1)LO_BRK_FLT                                                                                                                                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10477 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 1.0                                                                                                             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10478 | A | Force [TT] (TBCU3)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10479 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 0.0                                                                                                             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10480 | A | Release [TT] (TBCU3)LO_BRK_FLT                                                                                                                                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10481 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 1.0                                                                                                             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10482 | A | Force [TT] (BCU2)LO_BRK_FLT = 0.0                                                                                                                                    |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10483 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 0.0                                                                                                            |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10484 | A | Release [TT] (BCU2)LO_BRK_FLT                                                                                                                                        |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10485 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 1.0                                                                                                            |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10486 | I | Wheel Slide test                                                                                                                                                     |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10487 | A | On DDU from TC1 car, request the WSP test on test screen and perform the actions shown on DDU.                                                                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10488 | I | To request the WSP test, go to test screen and request the brake test. Perform the Parking brake test. After the parking brake test, the WSP test will be available. |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10489 | I | Safety requirement: [Prasa1-56]                                                                                                                                      |  | OK |   | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                         |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10490 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BcuTstOk = 0.0                                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10491 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_BcuTstOk = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10492 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_BcuTstOk = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10493 | R | Read Defined Variable [TT]<br>(MPU1)TBCU3_BcuTstOk = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10494 | R | Read Defined Variable [TT]<br>(MPU1)TBCU4_BcuTstOk = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10495 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10496 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10497 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10498 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10499 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10500 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10501 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10502 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10503 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10504 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10505 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10506 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>OFF. |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                 |  |    |  |                            |       |
|-------|---|-------------------------------------------------|--|----|--|----------------------------|-------|
| 10507 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 |  | OK |  | Nqobile Chirwa -<br>484648 | Train |
| 10508 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 |  | OK |  | Nqobile Chirwa -<br>484648 | Train |
| 10509 | I | End of Test                                     |  | OK |  | Nqobile Chirwa -<br>484648 | Train |





|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 16 – Emergency Brake Interlock

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### 16.1 Instructions list

### 16.1.1 044\_UBK-Emergency Brake Interlock

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                    | File | Result status | Result value | Operator                              | Vehicle |
|-------|------|--------------------------------------------------------------------------------|------|---------------|--------------|---------------------------------------|---------|
| 10001 | I    | Emergency Brake SPP=044 UBK                                                    |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10002 | I    | Emergency Brake Cylinder Pressure                                              |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10003 | I    | Pressure in the main pipe should be 10 bar +/- 0.2bar                          |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10004 | I    | The direction selector switch is in Neutral position                           |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10005 | I    | Emergency brake is applied                                                     |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10006 | A    | Measure the pressure of the BCTP point in all cars with a calibrated manometer |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10007 | R    | BCTP TC1<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 159          | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10008 | R    | BCTP M4<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 195          | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10009 | R    | BCTP M1<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 199          | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10010 | R    | BCTP M2<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 199          | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10011 | R    | BCTP M3<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 199          | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10012 | R    | BCTP TC2<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 163          | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10013 | I    | Emergency brake TC1                                                            |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10014 | I    | Emergency brake by Direction Switch TC1                                        |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10015 | I    | Direction selector switch is in NEUTRAL position                               |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10016 | A    | Active cab on TC1                                                              |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                           |      | OK            | 1            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_tINeb = 0.0                           |      | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10019 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tneb = 0.0                            |      | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |

|       |   |                                                          |  |    |   |                                       |       |
|-------|---|----------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10025 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10032 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10033 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                           |  |    |   |                                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10040 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10041 | I | Emergency Brake Button TC1                                                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10042 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10043 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                                                      |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10044 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10045 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10046 | A | Release the button 44S1                                                                                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10047 | A | Put the direction selector switch in<br>NEUTRAL Position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10048 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                                                      |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10049 | A | On the non-active cab TC2, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10050 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10051 | A | Release the button 44S1                                                                                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10052 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10053 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10054 | I | Emergency Brake by Master controller<br>TC1                                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10055 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                          |  |    |   |                                       |       |
|-------|---|----------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10057 | A | Put the master controller in EMERGENCY<br>BRAKE position |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10058 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10059 | A | Put the master controller in OFF position                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10060 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10061 | I | PEA override TC1                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10062 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10063 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10064 | R | Lamp 44H5 is OFF                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10065 | A | Pull any PEA on train                                    |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10066 | R | Lamp 44H5 is ON                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10067 | A | Press the PEA override button 44S5                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10068 | A | Reset the PEA by switch 44S6                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10069 | R | Lamp 44H5 is OFF                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10070 | A | Press the button 44S5 to normalize PEA<br>override       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10071 | I | Emergency brake TC2                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10072 | I | Emergency brake by Direction Switch TC2                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10073 | I | Direction selector switch is in NEUTRAL<br>position      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10074 | A | Switch active cab to TC2                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10075 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                          |  |    |   |                                       |       |
|-------|---|----------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0      |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10082 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10083 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10090 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10091 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                           |  |    |   |                                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10098 | I | Emergency Brake Button TC2                                                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10099 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10100 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10101 | A | Release the button 44S1                                                                                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10103 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10104 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10105 | A | On the non-active can TC1, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10106 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10107 | A | Release the button 44S1                                                                                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10108 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10109 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10110 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10111 | I | Emergency Brake by Master controller<br>TC2                                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|       |   |                                                                   |  |    |   |                                       |       |
|-------|---|-------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10112 | A | Put the direction selector switch in FORWARD position             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10113 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10114 | A | Put the master controller in EMERGENCY BRAKE position             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10115 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0              |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10116 | A | Put the master controller in OFF position                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10117 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0              |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10118 | I | PEA override TC2                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10119 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10120 | A | Pull any PEA on train                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10121 | R | Lamp 44H5 is ON                                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10122 | A | Press the PEA override button 44S5                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10123 | A | Reset the PEA by switch 44S6                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10124 | R | Lamp 44H5 is OFF                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10125 | A | Press the button 44S5 to normalize PEA override                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10126 | A | Put the direction selector switch in Neutral and FORWARD position |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10127 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10128 | I | Low Pressure                                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10129 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10130 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10131 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                          |  |    |   |                                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10132 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10133 | R | Drain the air in the main pipe until it reaches below 6 bar, i.e. drain air to reach the range 5-5.5 bar |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10134 | R | On DDU screen, emergency brake due to low pressure appears                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10137 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10138 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10139 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10142 | I | The pressure in the main pipe should be at least 7 bar for emergency brake to be released                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10143 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 1.0                                                    |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 1.0                                                    |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10146 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10147 | I | End of Test                                                                                              |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 17 – Fire Detection

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### 17.1 Instructions list

### 17.1.1 067\_FSD-Fire Detection

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                | File | Result status | Result value | Operator                | Vehicle |
|-------|------|--------------------------------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Fire Detection SPP= 067                                                                    |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Start of Test                                                                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | A    | Turn the key to Active cab                                                                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | A    | Close the battery contactor 18S1                                                           |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                     |      | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10007 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                      |      | OK            | 2            | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)NET_FDCUPresCIP = 1.0                                  |      | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireSystemOk = 1.0                                 |      | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireLocation = 1.0                                 |      | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                       |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data2 = 0.0                                       |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data3 = 0.0                                       |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_DiagData = 0.0                                    |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                     |      | OK            | 17           | Celiwe Sokhela - 491462 | Train   |
| 10016 | I    | Fire Detection Simulation test in Saloon                                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | I    | In order to see the CCTV footage where fire was simulated, navigate through the ISO event. |      | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                                                                               |                                                                                   |    |    |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----|-------------------------|-------|
| 10018 | I | Both cameras will be activated when a fire is detected in the saloon                                                          |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10019 | I | All HVACs are operational                                                                                                     |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10020 | I | TC1                                                                                                                           |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10021 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC1 cab for at least 1s                                |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10022 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10023 | R | HVAC stops working in the cab and TC1 saloon                                                                                  |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                                                           |                                                                                   | OK | 49 | Celiwe Sokhela - 491462 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1.0                                                                             |                                                                                   | OK | 1  | Celiwe Sokhela - 491462 | Train |
| 10026 | A | Reset the fire detection loop on the DDU                                                                                      |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10027 | R | 67H1 turns OFF on the Alarm Module and NO fire detected on the DDU                                                            |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10028 | R | The HVAC of TC1 Cab and Saloon starts working in normal condition                                                             |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                                                             |                                                                                   | OK | 0  | Celiwe Sokhela - 491462 | Train |
| 10030 | A | It takes about 40 seconds for the variable "FDCU_Status" below to change to 17. Read the variable before the next simulation. |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                                                           |                                                                                   | OK | 17 | Celiwe Sokhela - 491462 | Train |
| 10032 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC1 car for at least 1s                                |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10033 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU                                           |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10034 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |
| 10035 | R | HVAC stop working in TC1 saloon.                                                                                              |                                                                                   | OK |    | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                      |  |    |    |                            |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|----|----------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49 | Celiwe Sokhela -<br>491462 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 2.0                                                 |  | OK | 2  | Celiwe Sokhela -<br>491462 | Train |
| 10038 | A | Reset the fire detection loop on the DDU                                                             |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10039 | R | HVAC starts working in TC1 saloon                                                                    |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10040 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0  | Celiwe Sokhela -<br>491462 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17 | Celiwe Sokhela -<br>491462 | Train |
| 10043 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A3 on TC1 car for at<br>least 1s |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10044 | R | The CCTV footage showing TC1 saloon<br>where the fire was detected is shown on<br>the DDU            |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10045 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10046 | R | HVAC stop working in TC1 saloon                                                                      |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49 | Celiwe Sokhela -<br>491462 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 4.0                                                 |  | OK | 4  | Celiwe Sokhela -<br>491462 | Train |
| 10049 | A | Reset the fire detection loop on the DDU                                                             |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10050 | R | HVAC starts working in TC1 saloon                                                                    |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10051 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0  | Celiwe Sokhela -<br>491462 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17 | Celiwe Sokhela -<br>491462 | Train |
| 10054 | I | M4 car Test                                                                                          |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10055 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on M4 car for at              |  | OK |    | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                               |  |    |    |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|----|-------------------------|-------|
|       |   | least 1s                                                                                      |  |    |    |                         |       |
| 10056 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10057 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10058 | R | HVAC unit stop in M4 saloon.                                                                  |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49 | Celiwe Sokhela - 491462 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32.0                                            |  | OK | 32 | Celiwe Sokhela - 491462 | Train |
| 10061 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10062 | R | HVAC starts working in the saloon                                                             |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10063 | R | Camera footage disappears from the DDU screen                                                 |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0  | Celiwe Sokhela - 491462 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17 | Celiwe Sokhela - 491462 | Train |
| 10066 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M4 car for at least 1s |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10067 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10068 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10069 | R | HVAC stop working in the saloon                                                               |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49 | Celiwe Sokhela - 491462 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 64.0                                            |  | OK | 64 | Celiwe Sokhela - 491462 | Train |
| 10072 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Celiwe Sokhela - 491462 | Train |
| 10073 | R | HVAC starts working in M4 saloon                                                              |  | OK |    | Celiwe Sokhela - 491462 | Train |



|       |   |                                                                                               |  |    |     |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|-----|-------------------------|-------|
| 10074 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Celiwe Sokhela - 491462 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Celiwe Sokhela - 491462 | Train |
| 10077 | I | M1 car                                                                                        |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10078 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M1 car for at least 1s |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10079 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10080 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10081 | R | HVAC stop working on M1                                                                       |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49  | Celiwe Sokhela - 491462 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 256.0                                           |  | OK | 256 | Celiwe Sokhela - 491462 | Train |
| 10084 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10085 | R | HVAC starts working in M1 saloon                                                              |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10086 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Celiwe Sokhela - 491462 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Celiwe Sokhela - 491462 | Train |
| 10089 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M1 car for at least 1s |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10090 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Celiwe Sokhela - 491462 | Train |
| 10091 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                           |  |    |      |                         |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|------|-------------------------|-------|
| 10092 | R | HVAC stop working in M1 saloon.                                                           |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Celiwe Sokhela - 491462 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 512.0                                       |  | OK | 512  | Celiwe Sokhela - 491462 | Train |
| 10095 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10096 | R | HVAC starts working in M1 saloon                                                          |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10097 | R | Camera footage disappears from the DDU screen                                             |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Celiwe Sokhela - 491462 | Train |
| 10100 | I | M2 car Test                                                                               |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10101 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M2 for at least 1s |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10102 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10103 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10104 | R | HVAC stop working in M2                                                                   |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Celiwe Sokhela - 491462 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4096.0                                      |  | OK | 4096 | Celiwe Sokhela - 491462 | Train |
| 10107 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10108 | R | HVAC starts working in M2                                                                 |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10109 | R | Camera footage disappears from DDU screen                                                 |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                           |  |    |       |                         |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|-------|-------------------------|-------|
| 10112 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M2 for at least 1s |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10113 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10114 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10115 | R | HVAC stop working                                                                         |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Celiwe Sokhela - 491462 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2048.0                                      |  | OK | 2048  | Celiwe Sokhela - 491462 | Train |
| 10118 | A | Reset the fire detection loop on the DDU                                                  |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10119 | R | HVAC starts working in M2                                                                 |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10120 | R | Camera footage disappears from the DDU screen                                             |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17    | Celiwe Sokhela - 491462 | Train |
| 10123 | I | M3 car Test                                                                               |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10124 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M3 for at least 1s |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10125 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU        |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10126 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10127 | R | HVAC stop working in M3                                                                   |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Celiwe Sokhela - 491462 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32768.0                                     |  | OK | 32768 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                            |  |    |       |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|-------|-------------------------|-------|
| 10130 | A | Reset the fire detection loop on the DDU                                                   |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10131 | R | HVAC starts working in M3                                                                  |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10132 | R | Camera footage disappears from the DDU screen                                              |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17    | Celiwe Sokhela - 491462 | Train |
| 10135 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M3 for at least 1s  |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10136 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU         |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10137 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10138 | R | HVAC stop working in M3                                                                    |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49    | Celiwe Sokhela - 491462 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 16384.0                                      |  | OK | 16384 | Celiwe Sokhela - 491462 | Train |
| 10141 | A | Reset the fire detection loop on the DDU                                                   |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10142 | R | HVAC starts working in M3                                                                  |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10143 | R | Camera footage disappears from the DDU screen                                              |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0     | Celiwe Sokhela - 491462 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17    | Celiwe Sokhela - 491462 | Train |
| 10146 | I | TC2                                                                                        |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10147 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC2 for at least 1s |  | OK |       | Celiwe Sokhela - 491462 | Train |
| 10148 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                            |  |    |        |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|-------------------------|-------|
| 10149 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10150 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49     | Celiwe Sokhela - 491462 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 524288.0                                     |  | OK | 524288 | Celiwe Sokhela - 491462 | Train |
| 10153 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10154 | R | HVAC starts working in TC2                                                                 |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10155 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0      | Celiwe Sokhela - 491462 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17     | Celiwe Sokhela - 491462 | Train |
| 10158 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC2 for at least 1s |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10159 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10160 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10161 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10162 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49     | Celiwe Sokhela - 491462 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 262144.0                                     |  | OK | 262144 | Celiwe Sokhela - 491462 | Train |
| 10164 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10165 | R | HVAC starts working in TC2                                                                 |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10166 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Celiwe Sokhela - 491462 | Train |
| 10167 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0      | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                      |                                                                                     |    |         |                            |       |
|-------|---|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---------|----------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |                                                                                     | OK | 17      | Celiwe Sokhela -<br>491462 | Train |
| 10169 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A4 on TC2 cab for at<br>least 1s |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10170 | R | 67H1 becomes "ON" on the Alarm Module<br>of TC2 and TC1, and the DDU also shows<br>the fire location |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10171 | R | HVAC stops working in TC2 saloon                                                                     |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |                                                                                     | OK | 49      | Celiwe Sokhela -<br>491462 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 131072.0                                            |                                                                                     | OK | 131072  | Celiwe Sokhela -<br>491462 | Train |
| 10174 | A | Reset the fire detection loop on the DDU                                                             |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10175 | R | HVAC starts working in TC2                                                                           |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |                                                                                     | OK | 0       | Celiwe Sokhela -<br>491462 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |                                                                                     | OK | 17      | Celiwe Sokhela -<br>491462 | Train |
| 10178 | I | Fire Detection Simulation Underframe                                                                 |  | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10179 | I | TC2 ACU Test                                                                                         |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10180 | A | Toggle the switch to activate a fire in the<br>ACU                                                   |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10181 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10182 | R | Read Undefined Variable [TT]<br>(MPU1)FDCU_Data1                                                     |                                                                                     | OK | 2097152 | Celiwe Sokhela -<br>491462 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0                                        |                                                                                     | OK | 0       | Celiwe Sokhela -<br>491462 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                                        |                                                                                     | OK | 1       | Celiwe Sokhela -<br>491462 | Train |
| 10185 | A | Remove the switch and put back the cover                                                             |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |
| 10186 | A | Reset the fire detection loop from the<br>DDU                                                        |                                                                                     | OK |         | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                   |  |    |       |                            |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Celiwe Sokhela -<br>491462 | Train |
| 10189 | I | M3 car propulsion box                                                             |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10190 | A | Toggle the switch to activate a fire in M3<br>propulsion box                      |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10191 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 65536.0                          |  | OK | 65536 | Celiwe Sokhela -<br>491462 | Train |
| 10193 | R | Confirm that the value above is 65536                                             |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10194 | A | Remove the switch and put back the cover                                          |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10195 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Celiwe Sokhela -<br>491462 | Train |
| 10198 | I | M2 car propulsion box                                                             |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10199 | A | Toggle the switch to activate a fire in M2<br>propulsion box                      |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10200 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 8192.0                           |  | OK | 8192  | Celiwe Sokhela -<br>491462 | Train |
| 10202 | A | Remove the switch and put back the cover                                          |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10203 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Celiwe Sokhela -<br>491462 | Train |
| 10206 | I | M1 car propulsion box                                                             |  | OK |       | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                |  |    |      |                         |       |
|-------|---|--------------------------------------------------------------------------------|--|----|------|-------------------------|-------|
| 10207 | A | Toggle the switch to activate a fire in M1 propulsion box                      |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10208 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1024.0                           |  | OK | 1024 | Celiwe Sokhela - 491462 | Train |
| 10210 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 1.0                     |  | OK | 1    | Celiwe Sokhela - 491462 | Train |
| 10211 | A | Remove the switch and put back the cover                                       |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10212 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10213 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Celiwe Sokhela - 491462 | Train |
| 10215 | I | M4 Propulsion box                                                              |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10216 | A | Toggle the switch to activate a fire in M4 Propulsion box                      |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10217 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 128.0                            |  | OK | 128  | Celiwe Sokhela - 491462 | Train |
| 10219 | A | Remove the switch and put back the cover                                       |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10220 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Celiwe Sokhela - 491462 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Celiwe Sokhela - 491462 | Train |
| 10223 | I | TC1 ACU Test                                                                   |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10224 | A | Toggle the switch in TC1 to activate a fire in the ACU                         |  | OK |      | Celiwe Sokhela - 491462 | Train |
| 10225 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Celiwe Sokhela - 491462 | Train |



|       |   |                                                               |  |    |    |                            |       |
|-------|---|---------------------------------------------------------------|--|----|----|----------------------------|-------|
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16.0         |  | OK | 16 | Celiwe Sokhela -<br>491462 | Train |
| 10227 | A | Remove the switch and put back the cover                      |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10228 | A | Reset the fire detection loop from the<br>DDU                 |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0          |  | OK | 0  | Celiwe Sokhela -<br>491462 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0        |  | OK | 17 | Celiwe Sokhela -<br>491462 | Train |
| 10231 | A | Close the HSCB                                                |  | OK |    | Celiwe Sokhela -<br>491462 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0 |  | OK | 0  | Celiwe Sokhela -<br>491462 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0 |  | OK | 0  | Celiwe Sokhela -<br>491462 | Train |
| 10234 | I | End of Test                                                   |  | OK |    | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 18 – Passenger Doors

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### 18.1 Instructions list

### 18.1.1 050\_DOR-Passenger Doors

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                       | File                                                                              | Result status | Result value | Operator                              | Vehicle |
|-------|------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|--------------|---------------------------------------|---------|
| 10001 | I    | Doors SPP = 050 DOR                                               |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10002 | I    | Initial Conditions                                                |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10003 | I    | All doors should be closed                                        |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10004 | I    | Speed less than 3km/h relay 61K3 is energized                     |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10005 | I    | Start of Test                                                     |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10006 | I    | Uploading procedure:                                              |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10007 | I    | Follow the below instructions to upload software on all the doors |  | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10008 | I    | Doors functional Test TC1 Cab                                     |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10009 | I    | Door authorization not possible in non-active cab                 |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10010 | A    | Remove active cab on TC1                                          |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10011 | A    | Put the door authorization switch 50S7 to DRIVER mode             |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10012 | A    | Press the AUTH LEFT button 50S5                                   |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10013 | R    | Door AUTH LEFT not possible, Lamp 50S5 is OFF                     |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10014 | A    | Press the OPEN LEFT button 50S1                                   |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10015 | R    | OPEN LEFT door not possible, Lamp 50S1 is OFF                     |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10016 | A    | Press the AUTH RIGHT button 50S6                                  |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10017 | R    | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                    |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10018 | A    | Press the OPEN RIGHT button 50S2                                  |                                                                                   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |

|       |   |                                                                           |                                                                                     |    |   |                                       |       |
|-------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------------------|-------|
| 10019 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                            |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10020 | I | Door authorization with active cab                                        |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10021 | A | Activate cab on TC1                                                       |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0      |                                                                                     | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10023 | A | Press and hold the AUTH LEFT button 50S5                                  |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 0.0       |                                                                                     | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10025 | A | Press and hold the OPEN LEFT button 50S1                                  |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0          |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 1.0       |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10028 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10029 | R | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10030 | A | Press and hold the CLOSE LEFT button 50S3                                 |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpleftr1 = 1.0      |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10033 | R | Lamp 51H1 is OFF                                                          |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10034 | R | Check on the DDU screen that all left doors are closed and in blue colour |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10035 | A | Press and hold the AUTH RIGHT button 50S6                                 |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10036 | R | Lamp 50S6 is ON                                                           |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1authdoorpbright = 1.0       |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10038 | R | Read Defined Variable [TT]                                                |                                                                                     | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                               |                                                                                   |    |   |                                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|---------------------------------------|-------|
|       |   | (MPU1)li_dor_tc1opendoorbright1 = 0.0                                                                                         |                                                                                   |    |   |                                       |       |
| 10039 | A | Press and hold the OPEN RIGHT button 50S2                                                                                     |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                             |                                                                                   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                             |                                                                                   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10042 | R | Check on DDU screen that all right doors are OPEN                                                                             |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10043 | R | Door safety loop is OPEN, lamp 51H1 is ON                                                                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10044 | A | Press and hold the button 50S4 to close all right doors                                                                       |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorbright1 = 1.0                                                          |                                                                                   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineright = 1.0                                                        |                                                                                   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10047 | R | Lamp 51H1 is OFF                                                                                                              |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10048 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10049 | A | Press the AUTH LEFT button 50S5                                                                                               |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10050 | A | Press the OPEN LEFT button 50S1                                                                                               |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10051 | A | Press the AUTH RIGHT button 50S6                                                                                              |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10052 | A | Press the OPEN RIGHT button 50S2                                                                                              |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10053 | R | Take a walk to TC2 on the train, verify that all doors have the light 50H20 lighting in GREEN colour to indicate door is open |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10054 | A | Press the CLOSE LEFT button 50S3                                                                                              |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10055 | A | Press the CLOSE RIGHT button 50S4                                                                                             |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10056 | R | All doors are closed on the DDU screen                                                                                        |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10057 | I | Train speed more than 3km/h TC1                                                                                               |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                   |  |    |  |                                       |       |
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| 10058 | A | Open 61Q1 to switch OFF the OTDR                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10059 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10060 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10061 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10062 | A | Press the OPEN RIGHT button 50S2                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10063 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0           |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10064 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0           |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10065 | R | All left doors are closed                         |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10066 | R | All right doors are closed                        |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10067 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10068 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10069 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10070 | A | Press the OPEN RIGHT button 50S2                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10071 | R | All doors remain closed                           |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10072 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1               |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10073 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1               |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10074 | I | Doors functional Test TC2 Cab                     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10075 | I | Door authorization not possible in non-active cab |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10076 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10077 | R | Door AUTH LEFT not possible, Lamp 50S5 is OFF     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10078 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10079 | R | OPEN LEFT door is not possible, Lamp 50S1 is OFF  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10080 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10081 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                        |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10082 | A | Press the OPEN RIGHT button 50S2                                      |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10083 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                        |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10084 | I | Door authorization with active cab                                    |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10085 | A | Activate cab on TC2                                                   |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10086 | A | Set the door authorization switch 50S7 to DRIVER mode in LV1          |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0  |                                                                                     | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10088 | A | Press and hold the AUTH LEFT button 50S5                              |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpleft = 1.0     |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 0.0   |                                                                                     | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10091 | A | Press and hold the OPEN LEFT button 50S1                              |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0      |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 1.0   |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10094 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour  |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10095 | I | Door safety loop is OPEN, lamp 51H1 is ON                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10096 | A | Press and hold the CLOSE LEFT button 50S3                             |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0 |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpleftr1 = 1.0  |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10099 | R | Lamp 51H1 is OFF                                                      |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|       |   |                                                                                                                               |                                                                                    |    |   |                                       |       |
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| 10100 | R | Check on the DDU screen that all left doors are closed and in blue colour                                                     |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10101 | A | Press and hold and hold the AUTH RIGHT button 50S6                                                                            |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpbright = 1.0                                                           |                                                                                    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 0.0                                                          |                                                                                    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10104 | A | Press and hold the OPEN RIGHT button 50S2                                                                                     |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 1.0                                                          |                                                                                    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10106 | R | Check on DDU screen that all right doors are OPEN                                                                             |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10107 | I | Door safety loop is OPEN, lamp 51H1 is ON                                                                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10108 | R | Press the CLOSE RIGHT button 50S4                                                                                             |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0                                                         |                                                                                    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpbright1 = 1.0                                                         |                                                                                    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10111 | R | Lamp 51H1 is OFF                                                                                                              |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10112 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10113 | A | Press the AUTH LEFT button 50S5                                                                                               |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10114 | A | Press the OPEN LEFT button 50S1                                                                                               |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10115 | A | Press the AUTH RIGHT button 50S6                                                                                              |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10116 | A | Press the OPEN RIGHT button 50S2                                                                                              |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10117 | R | Take a walk to TC1 on the train, verify that all doors have the light 50H20 lighting in GREEN colour to indicate door is open |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10118 | A | Press the CLOSE LEFT button 50S3                                                                                              |                                                                                    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10119 | A | Press the CLOSE RIGHT button 50S4                                                                           |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10120 | R | All doors are closed on the DDU screen                                                                      |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10121 | I | Train speed more than 3km/h TC2                                                                             |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10122 | A | Open 61Q1 to switch OFF the OTDR                                                                            |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10123 | A | Press the AUTH LEFT button 50S5                                                                             |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10124 | A | Press the OPEN LEFT button 50S1                                                                             |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10125 | A | Press the AUTH RIGHT button 50S6                                                                            |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10126 | A | Press the OPEN RIGHT button 50S2                                                                            |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10127 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0                                                                     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10128 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0                                                                     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10129 | R | All left doors are closed                                                                                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10130 | R | All right doors are closed                                                                                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10131 | A | Press the AUTH LEFT button 50S5                                                                             |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10132 | A | Press the OPEN LEFT button 50S1                                                                             |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10133 | A | Press the AUTH RIGHT button 50S6                                                                            |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10134 | A | Press the OPEN RIGHT button 50S2                                                                            |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10135 | R | All doors remain closed                                                                                     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10136 | A | Release [TT]<br>(BCU1)LO_SPEED_THRSLD1                                                                      |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10137 | A | Release [TT]<br>(BCU2)LO_SPEED_THRSLD1                                                                      |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10138 | A | Close 61Q1 circuit breaker                                                                                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10139 | I | Door Obstacle Detection                                                                                     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10140 | I | This test is to verify if the CCTV footage will display on the DDU when an obstacle is detected at any door |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10141 | A | Press the DOOR AUTH left button 50S5                                                                        |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10142 | A | Press the button 50S1 to open left doors                                          |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10143 | A | Place an obstacle at the centre of any of the open doors                          |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10144 | A | Close the left doors                                                              |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10145 | I | The door with an obstacle will attempt to close 3 times                           |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10146 | R | The door with an obstacle appears in white colour on the DDU screen               |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10147 | A | Remove the obstacle                                                               |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10148 | A | Open and close left doors                                                         |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10149 | R | The door which had the obstacle appears closed on the DDU and it's in blue colour |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10150 | I | Door Manual Opening                                                               |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10151 | A | All doors should be closed including the door covers in each saloon               |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10152 | I | TC1                                                                               |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10153 | A | Put the switch 50S7 in DRIVER mode                                                |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10154 | A | Try to manually open ALL TC1 DOORS                                                |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10155 | R | It is not possible to manually open any of the doors                              |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10156 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA          |                                                                                   | OK |      | Tebogo Mtombeni -<br>529938           | Train |
| 10157 | R | DOOR1 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 90.8 | Tebogo Mtombeni -<br>529938           | Train |
| 10158 | R | DOOR2 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 87.9 | Tebogo Mtombeni -<br>529938           | Train |
| 10159 | R | DOOR3 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 94.9 | Tebogo Mtombeni -<br>529938           | Train |
| 10160 | R | DOOR4 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 93.5 | Tebogo Mtombeni -<br>529938           | Train |
| 10161 | R | DOOR5 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 92.9 | Tebogo Mtombeni -<br>529938           | Train |
| 10162 | R | DOOR6 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 120  | Tebogo Mtombeni -<br>529938           | Train |
| 10163 | A | Manually open the doors                                                           |                                                                                   | OK |      | Tebogo Mtombeni -<br>529938           | Train |
| 10164 | R | Doors opens freely                                                                |                                                                                   | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10165 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10166 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10167 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10168 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0 |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0  |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10171 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10172 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10173 | R | The TC1 doors remains open                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10174 | A | Press the button 54S3 to acknowledge<br>PEAs                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10175 | A | Reset the PEA using switch 44S6                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10176 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10177 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10178 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10179 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10180 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10181 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10182 | R | The TC1 doors closes                                              |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10183 | A | Activate the lockout device on ALL TC1<br>Doors                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10184 | R | Doors of TC1 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10185 | A | Try to manually open the doors                                    |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10186 | R | It is not possible to open any of the doors                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10187 | A | Pull the PEAs                                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10188 | A | Try to manually open the doors                                           |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10189 | R | It is not possible to open any of the doors                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10190 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10191 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10192 | A | Press the OPEN LEFT button 50S1                                          |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10193 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10194 | R | All Train doors are open except for TC1 doors                            |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10196 | A | Release the lockout devices                                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10197 | A | Reset the PEAs using the switch 44S6                                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10198 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10199 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10200 | R | Doors appears as Closed on the DDU screen                                |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10202 | I | M4 car                                                                   |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10203 | A | Try to manually open ALL M4 DOORS                                        |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10204 | R | It is not possible to manually open any of the doors                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10205 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |        | Tebogo Mtombeni -<br>529938           | Train |
| 10206 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 106    | Tebogo Mtombeni -<br>529938           | Train |
| 10207 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 112.85 | Tebogo Mtombeni -<br>529938           | Train |
| 10208 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 96.8   | Tebogo Mtombeni -<br>529938           | Train |
| 10209 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 89.9   | Tebogo Mtombeni -<br>529938           | Train |
| 10210 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 65.15  | Tebogo Mtombeni -<br>529938           | Train |

|       |   |                                                                  |  |    |      |                                       |       |
|-------|---|------------------------------------------------------------------|--|----|------|---------------------------------------|-------|
| 10211 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 99.4 | Tebogo Mtombeni -<br>529938           | Train |
| 10212 | A | Manually open the doors                                          |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10213 | R | Doors opens freely                                               |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10214 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10215 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10216 | A | Press the OPEN LEFT button 50S1                                  |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10217 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorright = 1.0 |  | OK | 1    | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorleft = 1.0  |  | OK | 1    | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10220 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10221 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10222 | R | The M4 doors remains open                                        |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10223 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10224 | A | Reset the PEA using switch 44S6                                  |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10225 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10226 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10227 | A | Press the OPEN LEFT button 50S1                                  |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10228 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10229 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10230 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10231 | R | The M4 doors closes                                              |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10232 | A | Activate the lockout device on ALL M4<br>Doors                   |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10233 | R | Doors of M4 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10234 | A | Try to manually open the doors                                   |  | OK |      | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                          |  |    |        |                                       |       |
|-------|---|--------------------------------------------------------------------------|--|----|--------|---------------------------------------|-------|
| 10235 | R | It is not possible to open any of the doors                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10236 | A | Pull the PEAs                                                            |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10237 | A | Try to manually open the doors                                           |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10238 | R | It is not possible to open any of the doors                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10239 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10240 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10241 | A | Press the OPEN LEFT button 50S1                                          |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10242 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10243 | R | All Train doors are open except for M4 doors                             |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10244 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10245 | A | Release the lockout devices                                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10246 | A | Reset the PEAs using the switch 44S6                                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10247 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10248 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10249 | R | Doors appears as Closed on the DDU screen                                |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10251 | I | M1 car                                                                   |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10252 | A | Try to manually open ALL M1 DOORS                                        |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10253 | R | It is not possible to manually open any of the doors                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10254 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |        | Tebogo Mtombeni -<br>529938           | Train |
| 10255 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 100.35 | Tebogo Mtombeni -<br>529938           | Train |
| 10256 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 90.5   | Tebogo Mtombeni -<br>529938           | Train |
| 10257 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 84.25  | Tebogo Mtombeni -<br>529938           | Train |

|       |   |                                                                  |  |    |       |                                       |       |
|-------|---|------------------------------------------------------------------|--|----|-------|---------------------------------------|-------|
| 10258 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 92.05 | Tebogo Mtombeni -<br>529938           | Train |
| 10259 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 97    | Tebogo Mtombeni -<br>529938           | Train |
| 10260 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 90.8  | Tebogo Mtombeni -<br>529938           | Train |
| 10261 | A | Manually open the doors                                          |  | OK |       | Mphato Mphahlele -<br>480716          | Train |
| 10262 | R | Doors opens freely                                               |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10263 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10264 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10265 | A | Press the OPEN LEFT button 50S1                                  |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10266 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m1opendoorright = 1.0 |  | OK | 1     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10269 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10270 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10271 | R | The M1 doors remains open                                        |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10272 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10273 | A | Reset the PEA using switch 44S6                                  |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10274 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10275 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10276 | A | Press the OPEN LEFT button 50S1                                  |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10277 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10278 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10279 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10280 | R | The M1 doors closes                                              |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10281 | A | Activate the lockout device on ALL M1<br>Doors                   |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|       |   |                                                                          |  |    |       |                                       |       |
|-------|---|--------------------------------------------------------------------------|--|----|-------|---------------------------------------|-------|
| 10282 | R | Doors of M1 appear as OUT OF SERVICE on DDU screen                       |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10283 | A | Try to manually open the doors                                           |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10284 | R | It is not possible to open any of the doors                              |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10285 | A | Pull the PEAs                                                            |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10286 | A | Try to manually open the doors                                           |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10287 | R | It is not possible to open any of the doors                              |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10288 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10289 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10290 | A | Press the OPEN LEFT button 50S1                                          |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10291 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10292 | R | All Train doors are open except for M1 doors                             |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10293 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10294 | A | Release the lockout devices                                              |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10295 | A | Reset the PEAs using the switch 44S6                                     |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10296 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10297 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10298 | R | Doors appears as Closed on the DDU screen                                |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10300 | I | M2 car                                                                   |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10301 | A | Try to manually open ALL M2 DOORS                                        |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10302 | R | It is not possible to manually open any of the doors                     |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10303 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |       | Tebogo Mtombeni -<br>529938           | Train |
| 10304 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 107.6 | Tebogo Mtombeni -<br>529938           | Train |

|       |   |                                                                  |  |    |        |                                       |       |
|-------|---|------------------------------------------------------------------|--|----|--------|---------------------------------------|-------|
| 10305 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 82.86  | Tebogo Mtombeni -<br>529938           | Train |
| 10306 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 102.65 | Tebogo Mtombeni -<br>529938           | Train |
| 10307 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 113.05 | Tebogo Mtombeni -<br>529938           | Train |
| 10308 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 97.6   | Tebogo Mtombeni -<br>529938           | Train |
| 10309 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 97.65  | Tebogo Mtombeni -<br>529938           | Train |
| 10310 | A | Manually open the doors                                          |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10311 | R | Doors opens freely                                               |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10312 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10313 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10314 | A | Press the OPEN LEFT button 50S1                                  |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10315 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorright = 1.0 |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10318 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10319 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10320 | R | The M2 doors remains open                                        |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10321 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10322 | A | Reset the PEA using switch 44S6                                  |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10323 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10324 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10325 | A | Press the OPEN LEFT button 50S1                                  |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10326 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10327 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10328 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10329 | R | The M2 doors closes                                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                      |  |    |   |                                       |       |
|-------|---|----------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10330 | A | Activate the lockout device on ALL M2 Doors                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10331 | R | Doors of M2 appear as OUT OF SERVICE on DDU screen                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10332 | A | Try to manually open the doors                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10333 | R | It is not possible to open any of the doors                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10334 | A | Pull the PEAs                                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10335 | A | Try to manually open the doors                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10336 | R | It is not possible to open any of the doors                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10337 | A | Press AUTH LEFT BUTTON 50S5                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10338 | A | Press AUTH RIGHT BUTTON 50S6                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10339 | A | Press the OPEN LEFT button 50S1                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10340 | A | Press the OPEN RIGHT button 50S2                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10341 | R | All Train doors are open except for M2 doors                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10342 | A | Press the button 54S3 to acknowledge PEA                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10343 | A | Release the lockout devices                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10344 | A | Reset the PEAs using the switch 44S6                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10345 | A | Press the CLOSE LEFT button 50S3                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10346 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10347 | R | Doors appears as Closed on the DDU screen                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10349 | I | M3 car                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10350 | A | Try to manually open ALL M3 DOORS                                    |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10351 | R | It is not possible to manually open any of the doors                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                          |  |    |        |                                    |       |
|-------|---|--------------------------------------------------------------------------|--|----|--------|------------------------------------|-------|
| 10352 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |        | Tebogo Mtombeni - 529938           | Train |
| 10353 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 100.65 | Tebogo Mtombeni - 529938           | Train |
| 10354 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 77.6   | Tebogo Mtombeni - 529938           | Train |
| 10355 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 108.85 | Tebogo Mtombeni - 529938           | Train |
| 10356 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 111.1  | Tebogo Mtombeni - 529938           | Train |
| 10357 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 72.05  | Tebogo Mtombeni - 529938           | Train |
| 10358 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 104.5  | Tebogo Mtombeni - 529938           | Train |
| 10359 | A | Manually open the doors                                                  |  | OK |        | Mphato Mphahlele - 480716          | Train |
| 10360 | R | Doors opens freely                                                       |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10361 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10362 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10363 | A | Press the OPEN LEFT button 50S1                                          |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10364 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorright = 1.0         |  | OK | 1      | Hlawulani Nick Mabundzane - 418320 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorleft = 1.0          |  | OK | 1      | Hlawulani Nick Mabundzane - 418320 | Train |
| 10367 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10368 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10369 | R | The M3 doors remains open                                                |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10370 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10371 | A | Reset the PEA using switch 44S6                                          |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10372 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10373 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10374 | A | Press the OPEN LEFT button 50S1                                          |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |
| 10375 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |        | Hlawulani Nick Mabundzane - 418320 | Train |

|       |   |                                                                      |  |    |   |                                       |       |
|-------|---|----------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10376 | A | Press the CLOSE LEFT button 50S3                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10377 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10378 | R | The M3 doors closes                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10379 | A | Activate the lockout device on ALL M3 Doors                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10380 | R | Doors of M3 appear as OUT OF SERVICE on DDU screen                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10381 | A | Try to manually open the doors                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10382 | R | It is not possible to open any of the doors                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10383 | A | Pull the PEAs                                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10384 | A | Try to manually open the doors                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10385 | R | It is not possible to open any of the doors                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10386 | A | Press AUTH LEFT BUTTON 50S5                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10387 | A | Press AUTH RIGHT BUTTON 50S6                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10388 | A | Press the OPEN LEFT button 50S1                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10389 | A | Press the OPEN RIGHT button 50S2                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10390 | R | All Train doors are open except for M3 doors                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10391 | A | Press the button 54S3 to acknowledge PEA                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10392 | A | Release the lockout devices                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10393 | A | Reset the PEAs using the switch 44S6                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10394 | A | Press the CLOSE LEFT button 50S3                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10395 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10396 | R | Doors appears as Closed on the DDU screen                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10397 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10398 | I | TC2 car                                                              |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                          |  |    |        |                                       |       |
|-------|---|--------------------------------------------------------------------------|--|----|--------|---------------------------------------|-------|
| 10399 | A | Try to manually open ALL TC2 DOORS                                       |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10400 | R | It is not possible to manually open any of the doors                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10401 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |        | Tebogo Mtombeni -<br>529938           | Train |
| 10402 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 113.15 | Tebogo Mtombeni -<br>529938           | Train |
| 10403 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 72.95  | Tebogo Mtombeni -<br>529938           | Train |
| 10404 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 95.3   | Tebogo Mtombeni -<br>529938           | Train |
| 10405 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 76.4   | Mphato Mphahlele -<br>480716          | Train |
| 10406 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 108.25 | Tebogo Mtombeni -<br>529938           | Train |
| 10407 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 109.15 | Tebogo Mtombeni -<br>529938           | Train |
| 10408 | A | Manually open the doors                                                  |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10409 | R | Doors opens freely                                                       |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10410 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10411 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10412 | A | Press the OPEN LEFT button 50S1                                          |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10413 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorright = 1.0        |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0         |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10416 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10417 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10418 | R | The TC2 doors remains open                                               |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10419 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10420 | A | Reset the PEA using switch 44S6                                          |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10421 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10422 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                     |  |    |  |                                       |       |
|-------|---|-----------------------------------------------------|--|----|--|---------------------------------------|-------|
| 10423 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10424 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10425 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10426 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10427 | R | The TC2 doors closes                                |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10428 | A | Activate the lockout device on ALL TC2 Doors        |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10429 | R | Doors of TC2 appear as OUT OF SERVICE on DDU screen |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10430 | A | Try to manually open the doors                      |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10431 | R | It is not possible to open any of the doors         |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10432 | A | Pull the PEAs                                       |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10433 | A | Try to manually open the doors                      |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10434 | R | It is not possible to open any of the doors         |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10435 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10436 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10437 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10438 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10439 | R | All Train doors are open except for TC2 doors       |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA            |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10441 | A | Release the lockout devices                         |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10442 | A | Reset the PEAs using the switch 44S6                |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10443 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10444 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10445 | R | Doors appears as Closed on the DDU screen           |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                         |  |    |   |                                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0                                                                                    |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10447 | I | Door cycle test                                                                                                                                         |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10448 | I | This test should be performed at the end<br>of the shift when there is no one who will<br>want to go inside the train and disrupt the<br>test cycle.    |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10449 | A | Check all the doors beep when opening<br>and closing                                                                                                    |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10450 | A | Check door lights are green when open for<br>all doors                                                                                                  |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10451 | A | Check door lights are red when closing<br>from all doors                                                                                                |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10452 | A | Launch the door cycle test from the DDU                                                                                                                 |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10453 | I | At the beginning of the next shift (test<br>should be left to run overnight), all doors<br>should still be able to open and close<br>without any issues |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10454 | R | Door cycle test is successful                                                                                                                           |  | OK |   | Alleta Sekgololo -<br>417407          | Train |
| 10455 | I | End Test                                                                                                                                                |  | OK |   | Alleta Sekgololo -<br>417407          | Train |





|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 19 – Traction Interlock

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### 19.1 Instructions list

### 19.1.1 031\_TRC-Traction Interlock

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                          | File | Result status | Result value | Operator                | Vehicle |
|-------|------|----------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Traction Interlock SPP=031                                           |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10002 | I    | Initial Conditions                                                   |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10003 | I    | The direction selector switch 30A1.S2 should be in NEUTRAL position  |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10004 | I    | All doors should be closed                                           |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10005 | I    | Emergency brake should be applied                                    |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10006 | I    | PEA override switch should be in NORMAL position                     |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10007 | I    | Traction Interlock override switch 31S1 should be in NORMAL position |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10008 | I    | Backup mode switch 27S1 should be in NORMAL position                 |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10009 | I    | Start of Test                                                        |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10010 | I    | Traction Interlock TC1                                               |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10011 | A    | Active cab on TC1                                                    |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10012 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                   |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10013 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                   |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0             |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0            |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0           |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0            |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |

|       |   |                                                                            |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10024 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10025 | I | Emergency brake is released                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10036 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10037 | I | Emergency brake is released                                            |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10048 | I | Traction interlock with Doors TC1                                      |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10049 | A | Manually open any door                                                 |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10050 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 0.0              |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10061 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10062 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10063 | R | The opened door will automatically close                               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcbu1_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10074 | A | Activate any PEA                                                       |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                     |  |    |   |                          |       |
|-------|---|---------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10075 | A | After 3 seconds press the button 44S5                               |  | OK |   | Nqobile Chirwa - 484648  | Train |
| 10076 | I | Speed is greater than 5km/h therefore all doors will remain closed  |  | OK |   | Nqobile Chirwa - 484648  | Train |
| 10077 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized   |  | OK |   | Nqobile Chirwa - 484648  | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 1.0               |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa - 484648  | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648  | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648  | Train |
| 10088 | A | Reset PEA using switch 44S6                                         |  | OK |   | Nqobile Chirwa - 484648  | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 1.0               |  | OK | 1 | Nqobile Chirwa - 484648  | Train |
| 10090 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648  | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648  | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648  | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648  | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10099 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10100 | A | Activate any PEA                                                       |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10101 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhb = 0.0               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhb = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10112 | A | Reset PEA using switch 44S6                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |



|       |   |                                                                     |  |    |   |                         |       |
|-------|---|---------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10113 | A | Close the door opened above manually                                |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10114 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized   |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10115 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10118 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10119 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10124 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10125 | A | Press the red button 44S1 to make an emergency brake                |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10126 | R | Contactor of 44K12 and 44K11 are de-energized                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10127 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10131 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                                                           |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0                                                                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                                      |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                                      |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10137 | A | Release the red button 44S1 for<br>emergency brake                                                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10138 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0                                                                  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TlNotInhib = 1.0                                                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TlNotInhib = 1.0                                                                |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0                                                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0                                                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0                                                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0                                                      |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10149 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                                                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10150 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10161 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10162 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10173 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10174 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10175 | A | Put the direction selector switch in<br>NEUTRAL Position               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0               |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10186 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10187 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10188 | I | Traction Interlock Override TC1                                                                                  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10189 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10190 | R | A fault code is generated on the DDU<br>screen to inform the driver that the door<br>interlock has been override |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0                                                         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                                        |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                                       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0                                                        |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0                                                        |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0                                                        |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 1.0                                           |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 1.0                                           |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10201 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position                                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0                                                         |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                                        |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                            |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TInotInhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tInotInhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tInotInhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tInotInhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10212 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                             |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10213 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                             |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10214 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10215 | A | Remove active cab on TC1                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10216 | I | Traction Interlock TC2                                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10217 | A | Active Cab on TC2                                                          |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10218 | I | The direction selector switch 30A1.S2<br>should be in NEUTRAL position     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10219 | I | All doors should be closed                                                 |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10220 | I | Emergency brake should be applied                                          |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10221 | I | PEA override switch should be in<br>NORMAL position                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10222 | I | Traction Interlock override switch 31S1<br>should be in NORMAL position    |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10223 | I | Backup mode switch 27S1 should be in<br>NORMAL position                    |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                            |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10224 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                         |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10225 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                         |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10236 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10237 | I | Emergency brake is released                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                            |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10248 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10249 | I | Emergency brake is released                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10258 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10260 | I | Traction Interlock with Doors TC2                                          |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10261 | A | Manually open any door                                                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |



|       |   |                                                                        |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10262 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10273 | I | Simulate train speed of 5km/h contactor 61K2 is closed                 |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10274 | A | Energize point 41 of terminal block 93XT104_5 with 110V DC             |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10275 | R | The opened door will automatically close                               |  | OK |   | Nqobile Chirwa - 484648 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10282 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10286 | A | Activate any PEA                                                       |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10287 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10288 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10289 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10300 | A | Reset PEA using switch 44S6                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10307 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10311 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10312 | A | Activate any PEA                                                       |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10313 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10324 | A | Reset PEA using switch 44S6                                            |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10325 | A | Close the door opened above manually                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10326 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10337 | A | Press the red button 44S1 to make an<br>emergency brake                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                                           |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0                      |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0                      |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10348 | A | Release the red button 44S1 for<br>emergency brake                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10349 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10351 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                                |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                                |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                                |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10360 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10361 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0               |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10372 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10373 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10380 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10384 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10385 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10386 | A | Put the direction selector switch in<br>NEUTRAL position               |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10397 | I | Traction Interlock Override TC2                                        |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10398 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position         |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 1.0 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 1.0 |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10409 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position           |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |



|       |   |                                                                            |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0                  |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10420 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10421 | I | End of Test                                                                |  | OK |   | Nqobile Chirwa -<br>484648 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 20 – Deadman

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### 20.1 Instructions list

### 20.1.1 060\_DSD-Deadman

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                               | File                                                                                | Result status | Result value | Operator                   | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|----------------------------|---------|
| 10001 | I    | Deadman SPP = 060                                                                         |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Initial Conditions                                                                        |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | I    | The Traction and Emergency test procedure must be completed prior to performing this test |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | Lamp 60H2 is OFF                                                                          |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | I    | Master Controller is in Neutral position                                                  |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | I    | No Driving Direction selected                                                             |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | I    | Prepare train in LV ready with active cab on TC1                                          |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | I    | Start of Test                                                                             |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10009 | I    | Deadman override TC1                                                                      |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                         |                                                                                     | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10011 | A    | Put the override switch 60S1 to OVERRIDE position                                         |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10012 | R    | Lamp 60H2 is "ON" on the alarm module                                                     |  | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10013 | R    | Verify that the Deadman override indication appears on the DDU screen                     |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10014 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr2 = 1.0                         |                                                                                     | OK            | 1            | Siphesihle Mchunu - 491465 | Train   |
| 10015 | A    | Put the override switch 60S1 to NORMAL position                                           |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10016 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                         |                                                                                     | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10017 | R    | Lamp 60H2 is OFF                                                                          |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |

|       |   |                                                                                          |                                                                                     |    |   |                            |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|----------------------------|-------|
| 10018 | I | Deadman by Master Controller TC1                                                         |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10020 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10022 | A | Release the Master Controller switch 30A1.S4                                             |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10024 | I | Deadman by button 60S3 TC1                                                               |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10026 | A | Press the button 60S3 and hold it while reading variable below                           |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10028 | A | Release the button 60S3                                                                  |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10030 | I | Deadman functional test TC1                                                              |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 0.0                           |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 0.0                        |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0                     |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10034 | A | Select Driving Direction to FORWARD                                                      |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                      |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10036 | I | After 2.5 seconds buzzer starts beeping                                                  |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10037 | R | Lamp 60H1 is ON                                                                          |  | OK |   | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                              |                                                                                     |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-------------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 1.0                            |                                                                                     | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 1.0                               |                                                                                     | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10040 | I | A constant push on the button 60S3 or<br>Master controller will result in Emergency<br>brake |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10041 | A | Press and hold down the master controller<br>for about 2s                                    |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10042 | R | Lamp 60H1 is OFF                                                                             |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10043 | R | No sound from buzzer                                                                         |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10044 | A | Release master controller                                                                    |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10045 | I | After 2.5 seconds buzzer starts beeping                                                      |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10046 | R | Lamp 60H1 is ON                                                                              |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10047 | A | Press and hold the button 60S3 for about<br>2s                                               |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10048 | R | Lamp 60H1 is OFF                                                                             |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10049 | R | No sound from buzzer                                                                         |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10050 | A | Release Deadman button 60S3                                                                  |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10051 | I | After 2.5 seconds buzzer starts beeping                                                      |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10052 | R | After 5 seconds, emergency brake is<br>applied                                               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10053 | R | Verify on the DDU that the Emergency<br>brake by Deadman indication is ON                    |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 =<br>1.0                      |                                                                                     | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                          |                                                                                     | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10056 | A | Select Driving direction to NEUTRAL and<br>FORWARD again to reset the emergency<br>brake     |                                                                                     | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                          |                                                                                     | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |                                                                                     |    |   |                           |       |
|-------|---|------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------|-------|
| 10058 | A | Press down the Master controller and hold                              |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10059 | I | After 45s, emergency brake is applied                                  |    | OK |   | Siphehile Mchunu - 491465 | Train |
| 10060 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0      |                                                                                     | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10062 | A | Release the Master controller                                          |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10063 | A | Select the driving direction to NEUTRAL position                       |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 0.0                       |                                                                                     | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10065 | A | Remove active cab on TC1                                               |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10066 | I | Deadman Override TC2                                                   |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10067 | A | Active cab on TC2                                                      |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10068 | I | Deadman override switch 60S1 must be in NORMAL position                |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0      |                                                                                     | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10070 | A | Put the Deadman override switch 60S1 to OVERRIDE position              |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10071 | R | Verify on the DDU that the Deadman override indication is ON           |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 1.0      |                                                                                     | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10073 | R | Lamp 60H2 is ON                                                        |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10074 | A | Put the override switch 60S1 in NORMAL position                        |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0      |                                                                                     | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10076 | R | Lamp 60H2 is OFF                                                       |                                                                                     | OK |   | Siphehile Mchunu - 491465 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                            |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|----------------------------|-------|
| 10077 | I | Deadman by Master Controller TC2                                                         |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10079 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 1.0                            |                                                                                     | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10081 | A | Release the master controller                                                            |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10083 | I | Deadman by button 60S3 TC2                                                               |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10085 | A | Press the button 60S3 and hold it while reading the variable below                       |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10087 | A | Release the button 60S3                                                                  |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0                     |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10090 | I | Deadman functional test TC2                                                              |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 0.0                           |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 0.0                        |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10093 | A | Select Driving Direction to FORWARD                                                      |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                     |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10095 | I | After 2.5 seconds buzzer starts beeping                                                  |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10096 | R | lamp 60H1 is ON                                                                          |  | OK |   | Siphesihle Mchunu - 491465 | Train |



|       |   |                                                                                        |                                                                                     |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|----------------------------|-------|
| 10097 | R | Verify on the DDU screen that the Deadman active indication is ON                      |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2deadmanlampr1 = 1.0                         |                                                                                     | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2dmbuzzerr1 = 1.0                            |                                                                                     | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10100 | I | A constant push on the button 60S3 or Master controller will result in Emergency brake |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10101 | A | Press and hold down the master controller for about 2s                                 |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10102 | R | Lamp 60H1 is OFF                                                                       |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10103 | R | No sound from buzzer                                                                   |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10104 | A | Release the master controller                                                          |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0                                      |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10106 | R | After 2.5 seconds buzzer starts beeping                                                |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10107 | R | After 5 seconds, emergency brake is applied                                            |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10108 | R | Verify on the DDU screen that the emergency brake applied by Deadman indication is ON  |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 1.0                      |                                                                                     | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10110 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake     |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0                                      |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10112 | A | Press down the Master controller and hold                                              |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10113 | R | After 45s, emergency brake is applied                                                  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10114 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON                 |                                                                                     | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10115 | R | Read Defined Variable [TT]                                                             |                                                                                     | OK | 0 | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                  |  |    |  |                            |       |
|-------|---|--------------------------------------------------|--|----|--|----------------------------|-------|
|       |   | (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0           |  |    |  |                            |       |
| 10116 | A | Release the Master controller                    |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10117 | A | Select the driving direction to NEUTRAL position |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10118 | I | End of test                                      |  | OK |  | Siphesihle Mchunu - 491465 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 21 – Rescue Mode and Emergency Disconnection

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### 21.1 Instructions list

### 21.1.1 027\_ERM-Rescue Mode and Emergency Disconnection

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                         | File                                                                                | Result status | Result value | Operator                  | Vehicle |
|-------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------|---------|
| 10001 | I    | Rescue Mode and Emergency Disconnection = SPP 027                                   |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions                                                                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | Train in Normal mode with LV ready                                                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | Emergency brake is applied due to no direction selected on Train                    |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | The Blue button 27S5 must be released in TC1 and TC2                                |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | I    | Start of Test                                                                       |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | I    | Back-up Mode TC1                                                                    |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | A    | Put the switch 27S1 in BACKUP position                                              |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | R    | The TCMS is not available on the DDU screen                                         |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | R    | Lamp 27H2 is ON                                                                     |  | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10011 | A    | Timer 60.0 S                                                                        |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | R    | Both pantographs are raised                                                         |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10013 | R    | Both HSCBs are closed                                                               |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | R    | Both ACUs are operational, sound can be heard from outside the train                |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10015 | R    | All four traction units are in operation, sound can be heard from outside the train |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10016 | R    | There is a gradual increase in the main pipe pressure                               |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10017 | R    | HVAC units are operational in all cars                                              |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10018 | R    | Emergency lighting is ON in all cars                                                |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10019 | I    | Emergency Disconnection TC1                                                         |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                               |  |    |  |                           |       |
|-------|---|---------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10020 | A | Push the button 27S5 to disconnect pantographs and open HSCBs |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10021 | R | Both pantographs are lower and HSCBs are open                 |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10022 | A | Release the button 27S5                                       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10023 | I | Traction authorization TC1                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10025 | R | TA is authorized                                              |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10026 | R | Lamp 31H1 is ON on the alarm module                           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10027 | A | Put the direction selector switch in NEUTRAL position         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10028 | R | TA is not authorized                                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10029 | R | Lamp 31H1 is OFF on the alarm module                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10030 | I | Doors Operation TC1                                           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10031 | A | Press the auth button 50S5 to open left doors                 |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10032 | R | Check visually that all left doors are open                   |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10033 | A | Press the auth button 50S6 to open right doors                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10034 | R | Check visually that all right doors are open                  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10035 | A | Press the button 50S3 to close all the left doors             |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10036 | R | Check visually that all left doors are closed                 |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10037 | A | Press the button 50S4 to close all right doors                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10038 | R | Check visually that all right doors are closed                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10039 | I | Emergency Brake TC1                                           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10040 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                  |                                                                                     |    |  |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|---------------------------|-------|
| 10041 | A | Apply emergency brake using the red button 44S1                                                                  |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10042 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10043 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10044 | A | Release the emergency brake button 44S1                                                                          |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10045 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10046 | A | Apply emergency brake using by putting the Master Controller in Emergency brake position                         |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10047 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10048 | A | Put the Master controller in OFF position                                                                        |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10049 | A | Put the direction selector switch in NEUTRAL position                                                            |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10050 | A | Switch OFF the train by putting the switch 18S1 in OFF position                                                  |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10051 | A | Remove active cab on TC1                                                                                         |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10052 | I | Back-up Mode TC2                                                                                                 |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10053 | R | Train is OFF                                                                                                     |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10054 | A | Active Cab on TC2                                                                                                |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10055 | A | Switch ON the train using battery contactor 18S1                                                                 |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10056 | R | Train start-up in Normal mode, the TCMS is available on the DDU screen                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10057 | A | Put the backup mode switch 27S1 in BACKUP position                                                               |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10058 | R | The TCMS is no longer available on the DDU screen                                                                |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10059 | R | Lamp 27H2 is ON                                                                                                  |  | OK |  | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                     |  |    |  |                           |       |
|-------|---|-------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10060 | A | Timer 60.0 S                                                                        |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10061 | R | Both pantographs are raised                                                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10062 | R | Both HSCBs are closed                                                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10063 | R | Both ACUs are operational, sound can be heard from outside the train                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10064 | R | All four traction units are in operation, sound can be heard from outside the train |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10065 | R | There is a gradual increase in the main pipe pressure                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10066 | R | HVAC units are operational in all cars                                              |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10067 | R | Emergency lighting is ON in all cars                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10068 | I | Traction authorization TC2                                                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10069 | A | Put the direction selector switch in FORWARD position                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10070 | R | TA is authorized                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10071 | R | Lamp 31H1 is "ON" on the alarm module                                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10072 | R | Relay 31K1 and 31K2 are energized                                                   |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10073 | A | Put the direction selector switch in NEUTRAL position                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10074 | R | TA is not authorized                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10075 | R | Lamp 31H1 is OFF on the alarm module                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10076 | R | Relay 31K1 and 31K2 are de-energized                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10077 | I | Doors Operation TC2                                                                 |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10078 | A | Press the auth button 50S5 to open left doors                                       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10079 | R | Check visually that all left doors are open                                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10080 | A | Press the auth button 50S6 to open right doors                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10081 | R | Check visually that all right doors are open                                        |  | OK |  | Mphato Mphahlele - 480716 | Train |



|       |   |                                                                                                                  |  |    |  |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10082 | A | Press the button 50S3 to close all the left doors                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10083 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10084 | R | Check visually that all left doors are closed                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10085 | A | Press the button 50S4 to close all right doors                                                                   |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10086 | R | Check visually that all right doors are closed                                                                   |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10087 | I | Emergency Brake TC2                                                                                              |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10088 | A | Put the direction selector switch in NEUTRAL and again in FORWARD position to reset the emergency brake          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10089 | A | Apply emergency brake using the red button 44S1                                                                  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10090 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10091 | R | Release the emergency brake button 44S1                                                                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10092 | A | Apply emergency brake using by putting the Master controller in Emergency brake position                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10093 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10094 | A | Put the Master controller in OFF position                                                                        |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10095 | R | Emergency brake is applied                                                                                       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10096 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10097 | I | Emergency Disconnection TC2                                                                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10098 | A | Push the button 27S5 to disconnect pantographs and open HSCBs                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10099 | R | Both pantographs are lower and HSCBs are open                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                 |  |    |  |                           |       |
|-------|---|-----------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10100 | A | Release the button 27S5                                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10101 | A | Put the direction selector switch in NEUTRAL position           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10102 | A | Switch OFF the train by putting the switch 18S1 in OFF position |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10103 | R | Train is OFF                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10104 | A | Restart the train in Normal mode                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10105 | I | End of Test                                                     |  | OK |  | Mphato Mphahlele - 480716 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 22 – ERTMS

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### 22.1 Instructions list

## 22.1.1 062\_ERTMS-ERTMS

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                       | File                                                                                | Result status | Result value         | Operator                  | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|----------------------|---------------------------|---------|
| 10001 | I    | ERTMS SPP=062                                                                                                     |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10002 | I    | Safety Precautions                                                                                                |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10003 | R    | The ERTMS Warning Signs are attached in both ends underneath                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10004 | I    | No one should go near the Eurobalise Antennas during the test                                                     |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10005 | I    | EVC Mechanical Check + Software Upload                                                                            |    | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10006 | I    | Upload the ODE software using the following procedure.                                                            |    | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10007 | I    | Upload the COMET software using the following procedure.                                                          |  | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10008 | A    | Record the serial number of the sim card insert the Sim Cards inside the GSM-R module MT1 and MT2:                |  | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10009 | R    | Serial number for sim card installed on MT1<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520001843 | Alleta Sekgololo - 417407 | Train   |
| 10010 | R    | Serial number for sim card installed on MT2<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520001844 | Alleta Sekgololo - 417407 | Train   |
| 10011 | I    | ERTMS Complete Test                                                                                               |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10012 | I    | Perform the complete static test using the following procedure:                                                   |  | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10013 | R    | Static Test is complete                                                                                           |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10014 | I    | ERTMS Functional Test                                                                                             |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10015 | I    | The functional test should only be performed once ALL the software has been loaded and the Complete Test is done. |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10016 | I    | ERTMS Bypass                                                                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |

|       |   |                                                                                                             |  |    |   |                           |       |
|-------|---|-------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10017 | A | Activate cab TC1                                                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10018 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position                                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10019 | R | The IOS 524 is generated to inform the driver that the ERTMS has been bypassed in LV1 cubicle on TC1 or TC2 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10020 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr1 = 1.0                                              |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr2 = 1.0                                              |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10022 | R | ERTMS bypass led 62H1 is "ON" on alarm module                                                               |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10023 | R | ERTMS HMI is OFF on TC1                                                                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10024 | R | ERTMS EVC unit is OFF                                                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10025 | R | The cold movement detector is ON                                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10026 | A | Put the direction selector switch in FORWARD position                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10027 | A | Put the Master controller in EMERGENCY BRAKE position                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10028 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0                                                           |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10029 | A | Put Master controller in OFF position                                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10030 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position                         |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10031 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0                                                           |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10032 | A | Put the direction selector switch in NEUTRAL position                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10033 | A | Put ERTMS isolation switch 62S1 in NORMAL position                                                          |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10034 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr1 = 0.0                                              |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr2 = 0.0                                              |  | OK | 0 | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10036 | R | ERTMS bypass led 62H1 is OFF on alarm module                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10037 | R | ERTMS HMI is ON in TC1                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10038 | I | ERTMS Fault Monitoring (SPP M 62/13)                                         |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10039 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10040 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10041 | A | Remove -62XP1_X06 connector                                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10042 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsdc = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmstemp = 0.0                 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsfan = 0.0                  |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10047 | I | TEMPERATURE + FAN                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10048 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10049 | A | Apply a shunt between pins 42 and 60, pin 78 and 96 on -62XP1_X06 connector. |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10050 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmstemp = 1.0                 |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsfan = 1.0                  |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10053 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10054 | A | Remove all jumpers and put back the connector -62XP1_X06                     |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10055 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10056 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10057 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdc dc = 1.0                   |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10058 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10059 | I | 110v/24v converters                                                          |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10060 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10061 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10062 | A | Remove one DC/DC power supply                                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10063 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10064 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdc dc = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10066 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10067 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10068 | A | Put back the DC/DC power supply                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10069 | I | INTERNAL CIRCUIT BREAKERS                                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10070 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10071 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10072 | A | Open circuit breaker F01 and close all other circuit breakers from F02 - F20 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10074 | A | Close circuit breaker F01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |



|       |   |                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 1.0                |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10076 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                        |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10077 | R | ERTMS EVC unit is OFF                                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10078 | A | Normalize everything inside LV4 and<br>leave all circuit breakers closed. |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10079 | I | End of Test                                                               |  | OK |   | Alleta Sekgololo -<br>417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 23 – On-board train data recorder

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### 23.1 Instructions list

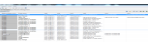
### 23.1.1 061\_REC-OTDR

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                        | File                                                                              | Result status | Result value | Operator                | Vehicle |
|-------|------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Event Recorder SPP= 061                                                                            |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Software must be updated in the OTDR with the latest baseline following below procedure            |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Software must be updated in the CPM according to the latest baseline following the below procedure |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Train should be OFF                                                                                |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Start of Test                                                                                      |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | A    | Prepare the train with active cabin on TC1                                                         |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                             |                                                                                   | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                              |                                                                                   | OK            | 2            | Celiwe Sokhela - 491462 | Train   |
| 10010 | I    | Speedometer Test TC1                                                                               |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Remove Active Cabin on TC1 and activate it again                                                   |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Speedometer lamp is ON                                                                             |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | A    | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0                                                   |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | A    | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest                                                       |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | I    | OTDR Reset                                                                                         |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                             |  |    |  |                         |       |
|-------|---|-----------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10018 | I | When OTDR is resetting, the power supply LED will go OFF and ON             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10019 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr1 = 1.0                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10020 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr2 = 1.0                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10021 | R | OTDR is OFF                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10022 | I | During OTDR reset, the driver receives a warning about a loss in the OTDR.  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10023 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr1                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10024 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr2                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10025 | I | OTDR is ON and reset                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10026 | I | Data Recording                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10027 | I | Please note the time one the DDU screen before performing the actions below |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10028 | A | Put the Traction Interlock Switch 31S1 in OVERRIDE position                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10029 | A | Put the Traction Interlock Switch 31S1 in NORMAL position                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10030 | A | Pull any PEA on train                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10031 | A | Acknowledge the PEA using the button 54S3                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10032 | A | Reset PEA using Switch 44S6                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10033 | A | Put the emergency brake loop override switch 44S2 in BYPASS position        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10034 | A | Put the emergency brake loop override switch 44S2 in NORMAL position        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10035 | A | Open HSCB using 22S12                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10036 | A | Put the Direction Selector Switch in FORWARD position                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10037 | A | Put the Direction Selector Switch in NEUTRAL position                       |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                       |  |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10038 | A | Put the Direction Selector Switch in REVERSE position                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10039 | A | Put the Driving Mode Switch to COUPLE/WASH mode                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10040 | A | Before the next step verify that the HSCB is OPEN on the DDU - There is a risk of train movement      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10041 | A | Put the Master Controller in TRACTION position                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10042 | A | Put the Master Controller in BRAKE position                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10043 | A | Put the Master Controller in OFF position                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10044 | A | Put the Direction Selector Switch in NEUTRAL position                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10045 | A | Push the RED Emergency brake button 44S1                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10046 | A | Release Emergency brake button                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10047 | A | Put the Door authorization Selector Switch 50S7 in DRIVER position                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10048 | A | Press the right door authorization button 50S6                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10049 | A | Press the right door open button 50S2 again and then close the door the right doors using button 50S4 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10050 | A | Press the left door authorization button 50S5                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10051 | A | Press the left door open button 50S1 again and then close the door the left doors using button 50S3   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10052 | A | Put the Door authorization Selector Switch 50S7 in ERTMS position                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10053 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10054 | A | Put the ERTMS isolation switch 62S1 in NORMAL position                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10055 | A | Note the time on the DDU                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                                                                               |                                                                                     |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10056 | A | Put the backup mode switch 27S1 in BACKUP position                                                                                                                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10057 | A | Switch OFF the train on TC1 cab                                                                                                                                                                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10058 | A | Put the backup Mode switch in NORMAL position                                                                                                                                                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10059 | A | Switch active cab to TC2                                                                                                                                                                                      |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10060 | I | Events download                                                                                                                                                                                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10061 | A | Switch ON the train from TC2 side                                                                                                                                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10062 | A | Note the time on the DDU                                                                                                                                                                                      |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10063 | I | Use the time noted down before and after recording the data to check the events                                                                                                                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10064 | A | Connect to the OTDR via TCMS network and download the two latest events files. See the manual below                                                                                                           |    | OK |  | Celiwe Sokhela - 491462 | Train |
| 10065 | A | Connect to the CPM front face RJ45 port and download the latest events file. See the manual below                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10066 | I | Data Recorded Reading                                                                                                                                                                                         |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10067 | A | Use SAM5 build 81 software to read data recorded from the OTDR. For the CPM use SAM5 build 88                                                                                                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10068 | I | The recorded data must be in the sequence as logged above. NB time for activation and deactivation of each input must be within the time at which the test was performed. See example below for recorded data |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10069 | R | CAB TC1 ACTIVE: ON                                                                                                                                                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10070 | R | CAB TC2 ACTIVE: OFF                                                                                                                                                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10071 | R | TRACTION INTERLOCK BYPASS: ON                                                                                                                                                                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10072 | R | TRACTION INTERLOCK BYPASS: OFF                                                                                                                                                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10073 | R | BRAKE APPLIED: ON                                                                                                                                                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10074 | R | PEA LOOP(OTDR): OFF                                                                                                                                                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10075 | R | PEA LOOP(OTDR): ON                                                                                                                                                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                              |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10076 | R | EMERGENCY BRAKE LOOP OVERRIDE: OFF                                                                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10077 | R | EMERGENCY BRAKE LOOP OVERRIDE: ON                                                                                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10078 | R | FORWARD: ON                                                                                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10079 | R | TRACTION: ON                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10080 | R | BRAKE APPLIED: OFF                                                                                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10081 | R | NO BRAKE: ON                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10082 | R | NO BRAKE: OFF                                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10083 | R | FORWARD: OFF                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10084 | R | TRACTION: OFF                                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10085 | R | REVERSE: OFF                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10086 | R | REVERSE: ON                                                                                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10087 | R | EMERGENCY BRAKE TRAINLINE: OFF                                                                                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10088 | R | EMERGENCY BRAKE TRAINLINE: ON                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10089 | R | DOOR AUTH LEFT TRAINLINE: OFF                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10090 | R | DOOR AUTH LEFT TRAINLINE: ON                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10091 | R | DOOR AUTH RIGHT TRAINLINE: ON                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10092 | R | DOOR AUTH RIGHT TRAINLINE: OFF                                                                                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10093 | R | ERTMS BYPASS: OFF                                                                                                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10094 | R | ERTMS BYPASS: ON                                                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10095 | R | BACKUP MODE: OFF                                                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10096 | R | BACKUP MODE: ON                                                                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10097 | R | CAB TC1 ACTIVE: OFF                                                                                                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10098 | R | CAB TC2 ACTIVE: ON                                                                                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10099 | A | Save all the downloaded files from CPM and OTDR and put them in a folder named "TSXXX_OTDR." Then save the folder to "teams" channel (shift reports) under a |  | OK |  | Celiwe Sokhela - 491462 | Train |



|       |   |                                                                              |                                                                                     |    |  |                         |       |
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|       |   | specific trainset folder TSXX>Results files> Train level.<br>XX=train number |                                                                                     |    |  |                         |       |
| 10100 | I | Speedometer Test TC2                                                         |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10101 | A | Remove active cab on TC2 and activate it again                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10102 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s     |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10103 | R | Speedometer lamp is ON                                                       |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10104 | A | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10105 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s     |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10106 | R | Speedometer lamp is ON                                                       |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10107 | A | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10108 | I | OTDR settings                                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10109 | A | Force [TT]<br>(MPU2)_REC_TravelledDistanceKm = 10.0                          |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10110 | A | Force [TT]<br>(MPU1)_REC_TravelledDistanceKm = 10.0                          |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10111 | R | The total distance on the odometer of the DDU screen is 10km                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10112 | A | Release [TT]<br>(MPU1)_REC_TravelledDistanceKm                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10113 | A | Release [TT]<br>(MPU2)_REC_TravelledDistanceKm                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10114 | A | Configure the OTDR and Data plug according to the settings in the file below |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10115 | R | Train UIC is set to 0120XXX                                                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10116 | R | The Wheel diameter is set to 840mm on the DDU Driver screen                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10117 | I | End of Test                                                                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 24 – External lights and Signaling

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### 24.1 Instructions list

### 24.1.1 072\_SGL-External Visibility

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                               | File                                                                                | Result status | Result value | Operator                  | Vehicle |
|-------|------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------|---------|
| 10001 | I    | External Visibility SPP=072                                               |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions                                                        |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | The air in the main should be at least 7.5bar                             |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | Start of Test                                                             |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | Windscreen wiper TC1                                                      |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | A    | Active cab on TC1                                                         |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | A    | Load the software on the TC1 wiper                                        |    | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | I    | Washer tank is empty                                                      |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | R    | The IOS for low level on water tank appears on the Driver's event list    |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 0.0              |                                                                                     | OK            | 0            | Mphato Mphahlele - 480716 | Train   |
| 10011 | A    | Fill up the washer tank with clean water                                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 1.0              |                                                                                     | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10013 | R    | No IOS regarding low water level on Driver's event list                   |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | I    | This test is to verify that the Wiper is centred                          |  | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10015 | A    | Put the wiper switch on Wash position                                     |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10016 | R    | Water is spraying on the windscreen; the wiper is cleaning the windscreen |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10017 | A    | Put the wiper switch to intermittent position                             |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10018 | R    | The wiper is operating properly on intermittent position                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                                                                                         |                                                                                   |    |   |                           |       |
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| 10019 | A | Put the wiper switch to low speed position                                                                                              |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10020 | R | The wiper is operating properly on low speed                                                                                            |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10021 | A | Put the wiper switch to high speed position                                                                                             |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10022 | R | Verify that the wiper does not lie too much on the left or right                                                                        |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10023 | A | Verify that the area wiped is at least as shown in the image attached                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10024 | A | Put the swiper switch on OFF position                                                                                                   |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10025 | R | Wiper stops, no water is spraying on windscreen                                                                                         |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10026 | I | Mirrors TC1                                                                                                                             |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10027 | A | Login as a Maintainer ID: 70979080                                                                                                      |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10028 | I | It is necessary to open and close each mirror several times to ensure that it is working properly                                       |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10029 | A | Press the DOOR AUTH left button 50S5                                                                                                    |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10030 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 1.0                                                                          |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                         |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10033 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10034 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10035 | A | Press 50S3 left door close button                                                                                                       |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10036 | R | The mirror is properly closed                                                                                                           |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                                                  |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                                  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10039 | A | Press the DOOR AUTH right button 50S6                                                                                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10040 | A | Turn the switch 70S10 to the right to<br>open the right mirror                                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                                   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 1.0                                                                                  |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10043 | A | Check visually that the mirror is open wide<br>enough to show the whole platform and<br>image is not blurry when sitting on the<br>driver's seat |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10044 | R | Verify that there is no leak on the mirror's<br>pneumatic piping                                                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10045 | A | Press 50S4 right door close button                                                                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10046 | R | The mirror is properly closed                                                                                                                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                                   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                                  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10049 | A | Press the DOOR AUTH left button 50S5                                                                                                             |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10050 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror =<br>1.0                                                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10051 | R | Left mirror is open                                                                                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10052 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror =<br>0.0                                                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10053 | R | Left mirror closes                                                                                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10054 | A | Press the DOOR AUTH right button 50S6                                                                                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10055 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror<br>= 1.0                                                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10056 | R | Right mirror opens                                                                                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10057 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror<br>= 0.0                                                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                                |                                                                                     |    |  |                           |       |
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| 10058 | R | Right mirror closes                                                            |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10059 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10060 | A | Release [TT] (MPU1)lo_sgl_tc1leftmirror                                        |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10061 | A | Release [TT] (MPU1)lo_sgl_tc1rightmirror                                       |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10062 | A | Isolate the valve H1.5/1 and H1.5/2                                            |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10063 | R | Check that the left and right mirrors can be folded manually                   |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10064 | A | Normalise the valve H1.5/1 and H1.5/2                                          |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10065 | A | Login on the DDU screen using the driver's code 70787878                       |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10066 | A | Go to Command Screen                                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10067 | A | Authorise OPEN DOOR LEFT and RIGHT using the button 50S5 and 50S6 respectively |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10068 | A | On the DDU Command screen, open the left mirror using the virtual button       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10069 | R | Left mirror opens                                                              |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10070 | A | Press virtual button to open right mirror                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10071 | R | Right mirror opens                                                             |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10072 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10073 | R | Both mirrors close                                                             |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10074 | A | Remove active cab on TC1                                                       |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10075 | I | External visibility TC2                                                        |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10076 | I | Windscreen wiper TC2                                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10077 | A | Active cab on TC2                                                              |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10078 | I | Load the software on the TC2 wiper                                             |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10079 | I | Washer tank is empty                                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |



|       |   |                                                                                  |                                                                                     |    |   |                           |       |
|-------|---|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------|-------|
| 10080 | R | The IOS for low level on water tank appears on the Driver's event list           |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 0.0                    |                                                                                     | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10082 | A | Fill up the washer tank with clean water                                         |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 1.0                    |                                                                                     | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10084 | R | No IOS regarding low water level on Driver's event list                          |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10085 | I | This test is to verify that the Wiper is centred                                 |    | OK |   | Mphato Mphahlele - 480716 | Train |
| 10086 | A | Put the swiper switch on Wash position                                           |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10087 | R | Water is spraying on the windscreen, the wiper is cleaning the windscreen        |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10088 | A | Put the wiper switch to intermittent position                                    |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10089 | R | The wiper is operating properly on intermittent position                         |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10090 | A | Put the wiper switch to low speed position                                       |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10091 | R | The wiper is operating properly on low speed                                     |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10092 | A | Put the wiper switch to high speed position                                      |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10093 | A | Verify that the wiper does not lie too much on the left or right                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10094 | R | Verify that the area wiped is at least as shown in the image above               |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10095 | A | Put the wiper switch on OFF position                                             |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10096 | R | Wiper stops, no water is spraying on windscreen                                  |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10097 | I | Mirrors TC2                                                                      |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10098 | A | Login as a Driver. ID:70787878                                                   |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10099 | I | It is necessary to open and close each mirror several times to ensure that it is |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                                         |  |    |   |                           |       |
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|       |   | working properly                                                                                                                        |  |    |   |                           |       |
| 10100 | A | Press the DOOR AUTH left button 50S5                                                                                                    |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10101 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 1.0                                                                          |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10104 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10105 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10106 | A | Press 50S3 left door close button                                                                                                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10107 | R | The mirror is properly closed                                                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10110 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10111 | A | Turn the switch 70S10 to the right to open the right mirror                                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 1.0                                                                         |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10114 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10115 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10116 | A | Press 50S4 right door close button                                                                                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10117 | R | The mirror is properly closed                                                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                      |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                      |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10120 | A | Press the DOOR AUTH left button 50S5                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10121 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror =<br>1.0                                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10122 | R | Left mirror is open                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10123 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror =<br>0.0                                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10124 | R | Left mirror closes                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10125 | A | Press the DOOR AUTH right button 50S6                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10126 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror<br>= 1.0                                      |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10127 | R | Right mirror opens                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10128 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror<br>= 0.0                                      |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10129 | R | Right mirror closes                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10130 | A | Release [TT] (MPU1)lo_sgl_tc2leftmirror                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10131 | A | Release [TT]<br>(MPU1)lo_sgl_tc2rightmirror                                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10132 | A | Press the button 50S3 and 50S4 to reset<br>door authorization                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10133 | A | Isolate the valve H1.5/1 and H1.5/2                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10134 | A | Check that the left and right mirrors can<br>be folded manually                      |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10135 | A | Normalise the valve H1.5/1 and H1.5/2                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10136 | A | Login on the DDU screen using the<br>driver's code 70787878                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10137 | A | Go to Command Screen                                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10138 | A | Authorise OPEN DOOR LEFT and RIGHT<br>using the button 50S5 and 50S6<br>respectively |  | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                          |                                                                                   |    |  |                           |       |
|-------|---|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|---------------------------|-------|
| 10139 | A | On the DDU Command screen, open the left mirror using the virtual button |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10140 | R | Left mirror opens                                                        |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10141 | A | Press virtual button to open right mirror                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10142 | R | Right mirror opens                                                       |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10143 | A | Press the button 50S2 and 50S4 to close the left and right doors         |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10144 | R | Both mirrors close                                                       |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10145 | I | End of test                                                              |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 25 – Train Ground Communication

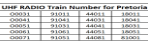
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### 25.1 Instructions list

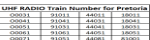
### 25.1.1 063\_UHF\_065\_GSM-UHF and GSM Radio

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                  | File | Result status | Result value         | Operator                 | Vehicle |
|-------|------|------------------------------------------------------------------------------------------------------------------------------|------|---------------|----------------------|--------------------------|---------|
| 10001 | I    | GSMR Radio SPP=065                                                                                                           |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10002 | I    | GSMR - Functional Test TC1                                                                                                   |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10003 | R    | Record the serial number of the sim card and install the sim card on GSMR radio<br>Result Min : 99999<= x ()                 |      | OK            | 89260420160520000582 | Tebogo Mtombeni - 529938 | Train   |
| 10004 | A    | Insert the SIM card into the GSMR Radio                                                                                      |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10005 | R    | Ensure the GSM Sim card has been inserted into the GSMR Radio, and there is no red flashing light close to the sim card slot |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10006 | A    | On the GSMR HMI, verify radio is not faulty                                                                                  |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10007 | A    | Active cab in TC1                                                                                                            |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10008 | I    | DDU-HMI Connection                                                                                                           |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10009 | A    | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                           |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10010 | R    | The time is the same (allowable difference of <10s)                                                                          |      | OK            |                      | Tebogo Mtombeni - 529938 | Train   |
| 10011 | I    | PACIS-HMI Connection                                                                                                         |      | OK            |                      | Celiwe Sokhela - 491462  | Train   |
| 10012 | A    | Lift the GSMR handset                                                                                                        |      | OK            |                      | Celiwe Sokhela - 491462  | Train   |
| 10013 | A    | Press the PA button on the GSMR HMI                                                                                          |      | OK            |                      | Celiwe Sokhela - 491462  | Train   |
| 10014 | R    | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                |      | OK            |                      | Celiwe Sokhela - 491462  | Train   |
| 10015 | R    | The PA indication alarm sounds in all cars                                                                                   |      | OK            |                      | Celiwe Sokhela - 491462  | Train   |
| 10016 | A    | Press the PTT on the handset and speak into the handset microphone                                                           |      | OK            |                      | Celiwe Sokhela - 491462  | Train   |

|       |   |                                                                                                                                                |                                                                                   |    |                      |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----------------------|--------------------------|-------|
| 10017 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |                      | Celiwe Sokhela - 491462  | Train |
| 10018 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |                      | Celiwe Sokhela - 491462  | Train |
| 10019 | I | UHF Radio Test TC1                                                                                                                             |                                                                                   | OK |                      | Celiwe Sokhela - 491462  | Train |
| 10020 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |                      | Celiwe Sokhela - 491462  | Train |
| 10021 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |                      | Celiwe Sokhela - 491462  | Train |
| 10022 | A | To test the next number, press and hold the off button to switch off the handheld and switch on the handheld again, then enter the new number. |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10023 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10024 | I | GSMR - Functional Test TC2                                                                                                                     |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10025 | A | Active Cab in TC2                                                                                                                              |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10026 | R | Record the serial number of the sim card and install the sim card on GSMR radio<br>Result Min : 99999<= x ()                                   |                                                                                   | OK | 89260420160520000583 | Tebogo Mtombeni - 529938 | Train |
| 10027 | A | Insert the SIM card into the GSMR Radio                                                                                                        |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10028 | R | Ensure the GSM Sim card has been inserted into the GSMR Radio, and there is no red flashing light close to the sim card slot                   |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10029 | A | On the GSMR HMI, verify radio is not faulty                                                                                                    |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10030 | I | DDU-HMI Connection                                                                                                                             |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10031 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                                             |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10032 | R | The time is the same (allowable difference of <10s)                                                                                            |                                                                                   | OK |                      | Tebogo Mtombeni - 529938 | Train |
| 10033 | I | PACIS-HMI Connection                                                                                                                           |                                                                                   | OK |                      | Celiwe Sokhela - 491462  | Train |
| 10034 | A | Lift the GSMR handset                                                                                                                          |                                                                                   | OK |                      | Celiwe Sokhela - 491462  | Train |



|       |   |                                                                                                                                                |                                                                                   |    |  |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10035 | A | Press the PA button on the GSMR HMI                                                                                                            |                                                                                   | OK |  | Celiwe Sokhela - 491462  | Train |
| 10036 | R | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                                  |                                                                                   | OK |  | Celiwe Sokhela - 491462  | Train |
| 10037 | R | The PA indication alarm sounds in all cars                                                                                                     |                                                                                   | OK |  | Celiwe Sokhela - 491462  | Train |
| 10038 | A | Press the PTT on the handset and speak into the handset microphone                                                                             |                                                                                   | OK |  | Celiwe Sokhela - 491462  | Train |
| 10039 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |  | Celiwe Sokhela - 491462  | Train |
| 10040 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |  | Celiwe Sokhela - 491462  | Train |
| 10041 | I | UHF Radio Test TC2                                                                                                                             |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10042 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10043 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10044 | A | To test the next number, press and hold the off button to switch off the handheld and switch on the handheld again, then enter the new number. |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10045 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |

## 25.1.2 064\_NBX-Netbox

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                                                                  | File                                                                                | Result status | Result value | Operator                 | Vehicle |
|-------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|--------------------------|---------|
| 10001 | I    | 064 Netbox                                                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10002 | I    | Software upload                                                                                                                                                                                                                                                              |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10003 | I    | Use the below procedure to install the software on the Netbox(M1)                                                                                                                                                                                                            |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10004 | A    | -Open the NBX (64Q1) circuit breaker<br>-Insert the programmed USB into the slot<br>-Close the NBX (64Q1) circuit breaker<br>-Device is on and software upload begins<br><br>Upload is complete when all LEDs on rows A and C are steady, on and green as the image attached |    | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10005 | I    | Netbox configuration check                                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10006 | A    | Perform the attached procedure to configure the Netbox (M1)                                                                                                                                                                                                                  |  | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10007 | R    | The Netbox is configured correctly                                                                                                                                                                                                                                           |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10008 | R    | The time and date on the DDU is correct - if not restart the train and verify again                                                                                                                                                                                          |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |

## Section 26 – Traction Converter

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### 26.1 Instructions list

### 26.1.1 033\_TRC-Traction Converter

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                       | File                                                                                | Result status | Result value | Operator               | Vehicle |
|-------|------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|------------------------|---------|
| 10001 | I    | Traction and Electric braking SPP=033                                                             |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10002 | I    | Initial Conditions                                                                                |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10003 | I    | Train is prepared with High voltage                                                               |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10004 | I    | Master controller is in OFF position                                                              |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10005 | I    | All traction units are in black colour on the DDU maintenance screen                              |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10006 | I    | Start of Test                                                                                     |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10007 | A    | Put the driving selector switch in FORWARD position                                               |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10008 | R    | Check on the DDU that all traction units are in FWD position                                      |  | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10009 | A    | Put the driving selector switch in REVERSE position                                               |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10010 | R    | Check on the DDU that all traction units are in REV position                                      |  | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10011 | A    | Put the driving selector switch in NEUTRAL position                                               |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10012 | I    | Traction Fault and reset                                                                          |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10013 | A    | Open HSCB using button 22S12                                                                      |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10014 | A    | Open the circuit breaker 33Q3 in M4 car                                                           |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10015 | R    | Traction unit of M4 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10016 | A    | Close the circuit breaker 33Q3                                                                    |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10017 | A    | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10018 | R    | Traction unit for M4 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK            |              | Mvelo Mthembu - 425564 | Train   |

|       |   |                                                                                                   |                                                                                     |    |  |                        |       |
|-------|---|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|------------------------|-------|
| 10019 | A | Open the circuit breaker 33Q3 in M1 car                                                           |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10020 | R | Traction unit of M1 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Mvelo Mthembu - 425564 | Train |
| 10021 | A | Close circuit breaker 33Q3 in M1 car                                                              |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10022 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10023 | R | Traction unit for M1 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10024 | A | Open the circuit breaker 33Q3 in M2 car                                                           |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10025 | R | Traction unit of M2 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Mvelo Mthembu - 425564 | Train |
| 10026 | A | Close the circuit breaker 33Q3 in M2 car                                                          |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10027 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10028 | R | Traction unit for M2 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10029 | A | Open the circuit breaker 33Q3 in M3 car                                                           |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10030 | R | Traction unit of M3 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10031 | A | Close the circuit breaker 33Q3 in M3 car                                                          |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10032 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10033 | R | Traction unit for M3 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10034 | A | Close HSCBs using button 22S11                                                                    |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10035 | I | End of Test                                                                                       |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 27 – CCTV Video Information

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### 27.1 Instructions list

### 27.1.1 055\_CCTV-Video Information

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                       | File                                                                                | Result status | Result value | Operator                              | Vehicle |
|-------|------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------------------|---------|
| 10001 | I    | CCTV SPP=066                                                      |                                                                                     | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10002 | I    | Front camera footage TC1                                          |                                                                                     | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10003 | A    | Active Cab on TC1 and Login as Driver:<br>70787878                |                                                                                     | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10004 | A    | Press and hold the FRONT EVENT<br>BUTTON 66S1 on TC1              |                                                                                     | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10005 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 1.0 |                                                                                     | OK            | 1            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 1.0 |                                                                                     | OK            | 1            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10007 | R    | The FRONT EVENT button lamp 66S1 is<br>ON                         |                                                                                     | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10008 | A    | Release the button 66S1                                           |                                                                                     | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10011 | R    | The FRONT EVENT button lamp 66S1 is<br>OFF                        |                                                                                     | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10012 | A    | On the DDU screen, check if the Camera is<br>correctly adjusted   |                                                                                     | OK            |              | Mlungisi Madela -<br>529927           | Train   |
| 10013 | A    | The picture on the DDU should be as the<br>picture attached.      |  | OK            |              | Mlungisi Madela -<br>529927           | Train   |
| 10014 | I    | Reverse direction front camera functional<br>test TC1             |                                                                                     | OK            |              | Mlungisi Madela -<br>529927           | Train   |
| 10015 | A    | Put the direction selector switch in<br>REVERSE position          |                                                                                     | OK            |              | Mlungisi Madela -<br>529927           | Train   |
| 10016 | R    | CCTV footage of TC2 front camera appears<br>on the DDU            |                                                                                     | OK            |              | Mlungisi Madela -<br>529927           | Train   |



|       |   |                                                                |                                                                                     |    |   |                                    |       |
|-------|---|----------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10017 | A | Put the direction selector switch in NEUTRAL position          |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10018 | R | CCTV footage of TC2 front camera does not appear on the DDU    |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10019 | A | Remove active cab on TC1                                       |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10020 | I | Front camera footage TC2                                       |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10021 | A | Active cab on TC2 and Login as Driver: 70787878                |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10022 | A | Press and hold the FRONT EVENT BUTTON 66S1 on TC2              |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR1 = 1.0 |                                                                                     | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR2 = 1.0 |                                                                                     | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10025 | R | The FRONT EVENT button lamp 66S1 is ON                         |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10026 | A | Release the button 66S1                                        |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10029 | R | The FRONT EVENT button lamp 66S1 is OFF                        |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10030 | A | On the DDU screen, check if the Camera is correctly adjusted   |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10031 | A | The picture on the DDU should be as the picture attached.      |  | OK |   | Mlungisi Madela - 529927           | Train |
| 10032 | I | Reverse direction front camera functional test TC2             |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10033 | A | Put the direction selector switch in REVERSE position          |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10034 | R | CCTV footage of TC1 front camera appears on the DDU            |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10035 | A | Put the direction selector switch in NEUTRAL position          |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |

|       |   |                                                                                                                                                                                                                                                  |                                                                                   |    |  |                          |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10036 | R | CCTV footage of TC1 front camera does not appear on the DDU                                                                                                                                                                                      |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10037 | I | NVR Recording                                                                                                                                                                                                                                    |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10038 | A | Ensure that the NVR in both TC1 and TC2 is locked according to the image below (the black box representing the direction of the key). A locked NVR has an OFF HD LED - After locking the NVR it will take some time for the HD LED to switch OFF |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10039 | R | The TC1 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10040 | R | The TC2 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10041 | A | Using the procedure attached, confirm that both NVRs are recording video data                                                                                                                                                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10042 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR1                                                                                                                                                   |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10043 | R | save the screenshot as TSXX_NVR1                                                                                                                                                                                                                 |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10044 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR2                                                                                                                                                   |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10045 | R | Save the screenshot as TSXX_NVR2                                                                                                                                                                                                                 |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10046 | A | Take the two saved screenshot and put them in a folder named "TSXXX_NVR." Then save the folder to "teams" channel (shift reports) under a specific trainset folder TSXX>Results files> Train level                                               |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |
| 10047 | I | End of Test                                                                                                                                                                                                                                      |                                                                                   | OK |  | Mlungisi Madela - 529927 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 28 – PACIS

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### 28.1 Instructions list

### 28.1.1 054\_PIS-Passenger Information System

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                             | File                                                                                | Result status | Result value | Operator                           | Vehicle |
|-------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|------------------------------------|---------|
| 10001 | I    | Pacis system = SPP 054 PIS                                                                                                                                                              |                                                                                     | OK            |              | Mlungisi Madela - 529927           | Train   |
| 10002 | I    | Software Upload                                                                                                                                                                         |                                                                                     | OK            |              | Mlungisi Madela - 529927           | Train   |
| 10003 | A    |                                                                                                                                                                                         |    | OK            |              | Mlungisi Madela - 529927           | Train   |
| 10004 | A    |                                                                                                                                                                                         |    | OK            |              | Mlungisi Madela - 529927           | Train   |
| 10005 | A    |                                                                                                                                                                                         |    | OK            |              | Mlungisi Madela - 529927           | Train   |
| 10006 | R    | Verify on the DDU, referring to the baseline spreadsheet, that all Pacis devices are updated with the latest software versions                                                          |                                                                                     | OK            |              | Mlungisi Madela - 529927           | Train   |
| 10007 | I    | Camera Orientation                                                                                                                                                                      |                                                                                     | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10008 | I    | The camera should show at least the complete gangway between two cars, luggage racks, the Interior display as well as the dead zones on the left and right of the doors.                |                                                                                     | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10009 | A    | Adjust the saloon cameras according to the image shown below. The Interior display should appear fully on the image as well as up to at least the first 2 doors of the neighbouring car |  | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10010 | A    | Please note any cameras showing green strips or unclear images should be updated settings using the attached procedure                                                                  |  | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10011 | R    | The Saloon cameras on TC1 have been adjusted according to image above.                                                                                                                  |                                                                                     | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10012 | R    | The Saloon cameras on M4 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10013 | R    | The Saloon cameras on M1 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10014 | R    | The Saloon cameras on M2 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |

|       |   |                                                                                         |  |    |   |                                       |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10015 | R | The Saloon cameras on M3 have been adjusted according to image above.                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10016 | R | The Saloon cameras on TC2 have been adjusted according to image above.                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10017 | I | Mission Number Display                                                                  |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10018 | A | Active Cab in TC1                                                                       |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10019 | A | Login as a driver, ID: 70787878                                                         |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10020 | A | Enter the mission 8100                                                                  |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10021 | R | Check that the TC1 and TC2 front external displays are showing the mission number 8100. |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10022 | I | Public Announcements TC1                                                                |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                           |  | OK | 0 | Mlungisi Madela -<br>529927           | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                           |  | OK | 0 | Mlungisi Madela -<br>529927           | Train |
| 10025 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10026 | R | Green lamp 54H2 is ON                                                                   |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10027 | R | A beep sound can be heard in all saloon speakers                                        |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10028 | R | On Driver's screen (Home Page), PA activation message is displayed                      |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10029 | A | Press the button 54S4 and hold it while talking via the microphone                      |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10030 | I | It is necessary to go to each and every speaker to verify sound is coming out           |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10031 | R | Announcement can be heard in saloon speakers of TC1                                     |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10032 | R | Announcement can be heard in saloon speakers of M4                                      |  | OK |   | Mlungisi Madela -<br>529927           | Train |
| 10033 | R | Announcement can be heard in saloon speakers of M1                                      |  | OK |   | Mlungisi Madela -<br>529927           | Train |

|       |   |                                                                                                                                                                |                                                                                   |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10034 | R | Announcement can be heard in saloon speakers of M2                                                                                                             |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10035 | R | Announcement can be heard in saloon speakers of M3                                                                                                             |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10036 | R | Announcement can be heard in saloon speakers of TC2                                                                                                            |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10037 | A | Release the button 54S4                                                                                                                                        |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10038 | A | Talk on the microphone                                                                                                                                         |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10039 | R | No sound can be heard in all cars                                                                                                                              |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10040 | A | Pulse the switch 54S1 to the right to de-activate PA announcement                                                                                              |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10041 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10042 | A | On the driver's screen (Image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 1.0                                                                                                     |                                                                                   | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 1.0                                                                                                     |                                                                                   | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10045 | R | Green lamp 54H2 is ON                                                                                                                                          |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10046 | R | PA announcement is activated                                                                                                                                   |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10047 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                             |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                                                                                                     |                                                                                   | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                                                                                                     |                                                                                   | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10050 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10051 | I | PA announcement is de-activated                                                                                                                                |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10052 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                              |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |
| 10053 | R | Sound cannot be heard in all speakers                                                                                                                          |                                                                                   | OK |   | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                         |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10054 | A | Release the button 54S4                                                                 |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10055 | A | Remove active cab on TC1                                                                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10056 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10057 | R | Green lamp 54H2 is OFF                                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10058 | R | No PA announcement activation showing on the Driver's screen                            |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10059 | I | Cab to Cab Communication TC1                                                            |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10060 | I | It is not necessary to have an active cab in order to initiate cab to cab communication |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10062 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10063 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10064 | R | Green lamp 54H1 is blinking                                                             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10065 | R | A beep can be heard in TC2 cab                                                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10066 | R | Green lamp 54H1 is blinking in TC2 cab                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10067 | R | Cab to Cab communication is Active on DDU driver's screen                               |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10068 | A | Accept Cab to cab communication request in TC2 by pulsing switch 54S1 to the left       |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10069 | R | Green lamp 54H1 is ON (steady) on TC2                                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10070 | A | Press and hold button 54S4 to initiate communication in TC1 and talk on the microphone  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10071 | R | Sound can be heard on TC2 cab speakers                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10072 | A | Press and hold button 54S4 in TC2 and talk on the microphone                            |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10073 | R | Sound can be heard on TC1 cab speakers                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |



|       |   |                                                                                                                                                                |                                                                                   |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10074 | A | Pulse the switch 54S1 to the left on TC1 to de-activate cab to cab communication                                                                               |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10075 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10076 | A | On the driver's screen (image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Mlungisi Madela - 529927           | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR1 = 1.0                                                                                               |                                                                                   | OK | 1 | Mlungisi Madela - 529927           | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 1.0                                                                                               |                                                                                   | OK | 1 | Mlungisi Madela - 529927           | Train |
| 10079 | R | Cab-Cab is activated                                                                                                                                           |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10080 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Mlungisi Madela - 529927           | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Mlungisi Madela - 529927           | Train |
| 10083 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10084 | I | Cab to Cab Communication TC2                                                                                                                                   |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                               |                                                                                   | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10087 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                                                                                         |                                                                                   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10088 | R | Green lamp 54H1 is blinking                                                                                                                                    |                                                                                   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10089 | R | A beep can be heard in TC1 cab                                                                                                                                 |                                                                                   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10090 | R | Green lamp 54H1 is blinking in TC1 cab                                                                                                                         |                                                                                   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                                |                                                                                     |    |   |                                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------------------|-------|
| 10091 | R | Cab to Cab communication is Active on DDU driver's screen                                                                                                      |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10092 | A | Accept Cab to cab communication request in TC1 by pulsing switch 54S1 to the left                                                                              |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10093 | R | Green lamp 54H1 is ON (steady) on TC1                                                                                                                          |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10094 | A | Press and hold button 54S4 to initiate communication in TC2 and talk on the microphone                                                                         |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10095 | R | Sound can be heard on TC1 cab speakers                                                                                                                         |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10096 | A | Press and hold button 54S4 in TC1 and talk on the microphone                                                                                                   |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10097 | R | Sound can be heard on TC2 cab speakers                                                                                                                         |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10098 | A | Pulse the switch 54S1 to the left on TC2 to de-activate cab to cab communication                                                                               |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10099 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10100 | A | On the driver's screen (image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 1.0                                                                                            |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 1.0                                                                                            |                                                                                     | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10103 | R | Cab-Cab is activated                                                                                                                                           |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10104 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                            |                                                                                     | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                            |                                                                                     | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10107 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                     | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                               |                                                                                     |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10108 | I | Ventilation Rack TC1                                                          |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10109 | A | Follow the instruction below o how to test the ventilation rack               |    | OK |   | Mlungisi Madela - 529927 | Train |
| 10110 | R | All three fans of the ventilation rack are working                            |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10111 | I | PEA Functional Test                                                           |    | OK |   | Mlungisi Madela - 529927 | Train |
| 10112 | I | All PEAs are normalized on Train                                              |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10113 | I | All doors should be closed                                                    |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10114 | I | Lamp 44H1 is OFF                                                              |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10115 | I | PEI auto test passed in all cars, only one green led can be seen in all PEIs  |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10116 | A | Active cab on TC1 and login as driver: 70787878                               |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10117 | I | All Cameras should be working and properly adjusted                           |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10118 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC1                                |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10119 | A | Pull the PEA                                                                  |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10120 | R | Lamp 44H1 is ON                                                               |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoo = 1.0                       |                                                                                     | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10122 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                    |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10123 | R | A Beed can be heard in TC1 cab                                                |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10124 | R | Button lamp 54S3 is BLINKING                                                  |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10125 | R | An emergency alarm announcement can be heard in all saloon speakers           |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10126 | R | Displays INT1 and INT2 indicate "Passenger Alarm" in all saloon cars          |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10127 | R | Lateral displays LAT1 and LAT2 indicate "Passenger Alarm" on the affected car |                                                                                     | OK |   | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                   |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10128 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10129 | A | Press the button 54S3 to acknowledge PEA communication request                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10130 | A | Press and hold button 54S4 on TC1 and talk on the microphone                      |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10131 | R | Message stops broadcasting in all saloon speakers                                 |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10132 | R | The person in the cabin can be heard from the PEI speaker                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10133 | A | Respond by talking back via the PEI                                               |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10134 | R | Communication is established between PEI and Driver cab                           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10135 | A | Press the button 54S3 to end PEA communication                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10136 | A | Reset PEA using switch 44S6                                                       |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10137 | R | PEA is reset and a click sound can be heard while PEA returns to its normal state |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10138 | A | Open and close doors using buttons on driver desk                                 |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10139 | R | All doors are closed and in blue colour on DDU                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10140 | R | Lamp 44H1 is OFF                                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoop = 0.0                          |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10142 | R | No CCTV footage showing on Driver's screen                                        |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10143 | R | Button lamp 54S3 is OFF                                                           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10144 | R | No message on Pacis displays                                                      |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10145 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC1                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                   |  | OK | 0 | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                                                                                                 |                                                                                   |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                              |                                                                                   | OK | 0 | Mlungisi Madela - 529927           | Train |
| 10148 | A | Pull the PEA                                                                                                                                                    |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10149 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                                                                                                      |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10150 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen                                                                                         |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10151 | A | On the driver's screen (image attached) select the "Passenger Alarm" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Mlungisi Madela - 529927           | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 1.0                                                                                              |                                                                                   | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 1.0                                                                                              |                                                                                   | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10154 | A | Press and hold button 54S4 on TC1 and talk on the microphone                                                                                                    |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10155 | R | The person in the cabin can be heard from the PEI speaker                                                                                                       |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10156 | A | Respond by talking back via the PEI                                                                                                                             |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10157 | R | Communication is stabile between PEI and Driver cab                                                                                                             |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10158 | A | On the driver's screen select the "Passenger Alarm" virtual button to end communication                                                                         |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                                                                                              |                                                                                   | OK | 0 | Mlungisi Madela - 529927           | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                              |                                                                                   | OK | 0 | Mlungisi Madela - 529927           | Train |
| 10161 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC1                                                                                                                  |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |
| 10162 | A | Pull the PEA                                                                                                                                                    |                                                                                   | OK |   | Mlungisi Madela - 529927           | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10163 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10164 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10165 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10166 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10167 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10168 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10169 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10170 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10171 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10172 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10173 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10174 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10175 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10176 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10177 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10178 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10179 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10180 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10181 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC1                          |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10182 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10183 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10184 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10185 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10186 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10187 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10188 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10189 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10190 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10191 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10192 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10193 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10194 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10196 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10197 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10198 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10199 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10200 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10201 | I | Call for Aid (CFA 54S5) on TC1                                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10202 | A | Press the SOS button 54S5                                               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10203 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10204 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10205 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10206 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC1           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10207 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10208 | A | Press the button 54S3 to acknowledge SOS communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10209 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10210 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10211 | A | Respond by talking back via the PEI near 54S5                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10212 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10213 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10214 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M4                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10215 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10216 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10217 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen  |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10218 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10219 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |



|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10220 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10221 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10222 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10223 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10224 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M4                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10225 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10226 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10227 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10228 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10229 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10230 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10231 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10232 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10233 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10234 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M4                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10235 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10236 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10237 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10238 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10239 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10240 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10241 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10242 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10243 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10244 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M4                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10245 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10246 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10247 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10248 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10249 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10250 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10251 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10252 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10253 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10254 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M4                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10255 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10256 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10257 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10258 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10259 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10260 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10261 | A | Respond by talking back via the PEI                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10262 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10263 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10264 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M4                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10265 | A | Pull the PEA                                                           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10266 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10267 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10268 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10269 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10270 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10271 | A | Respond by talking back via the PEI                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10272 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10273 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10274 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 1.0          |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10275 | A | Reset PEA using switch 44S6                                            |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 0.0          |  | OK | 0 | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10277 | R | All M4 PEAs are reset                                                  |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10278 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10279 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10280 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10281 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10282 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10283 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10284 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10285 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10286 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10287 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10288 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10289 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10290 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10291 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10292 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10293 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10294 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10295 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10296 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10297 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10298 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10299 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10300 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10301 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10302 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10303 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10304 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10305 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10306 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10307 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10308 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10309 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10310 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10311 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10312 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10313 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10314 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10315 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10316 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10317 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10318 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10319 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10320 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10321 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10322 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10323 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10324 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10325 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10326 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10327 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10328 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M1                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10329 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10330 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10331 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10332 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10333 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10334 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10335 | A | Respond by talking back via the PEI                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10336 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10337 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M1StateResetPea = 1.0       |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10339 | A | Reset PEA using switch 44S6                                            |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M1StateResetPea = 0.0       |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10341 | R | All M1 PEAs are reset                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10342 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M2                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10343 | A | Pull the PEA                                                           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10344 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10345 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10346 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10347 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10348 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10349 | A | Respond by talking back via the PEI                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10350 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10351 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10352 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M2                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10353 | A | Pull the PEA                                                           |  | OK |   | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10354 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10355 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10356 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10357 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10358 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10359 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10360 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10361 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10362 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M2                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10363 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10364 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10365 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10366 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10367 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10368 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10369 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10370 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10371 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10372 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M2                          |  | OK |  | Mlungisi Madela - 529927 | Train |



|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10373 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10374 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10375 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10376 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10377 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10378 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10379 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10380 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10381 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10382 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M2                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10383 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10384 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10385 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10386 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10387 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10388 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10389 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10390 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10391 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10392 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M2                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10393 | A | Pull the PEA                                                           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10394 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10395 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10396 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10397 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10398 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10399 | A | Respond by talking back via the PEI                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10400 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10401 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10402 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 1.0          |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10403 | A | Reset PEA using switch 44S6                                            |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10404 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 0.0          |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10405 | R | All M2 PEAs are reset                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10406 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M3                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10407 | A | Pull the PEA                                                           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10408 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10409 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10410 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10411 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10412 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10413 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10414 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10415 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10416 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M3                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10417 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10418 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10419 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10420 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10421 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10422 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10423 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10424 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10425 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10426 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M3                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10427 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10428 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10429 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10430 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10431 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10432 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10433 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10434 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10435 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10436 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M3                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10437 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10438 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10439 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10441 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10442 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10443 | A | Respond by talking back via the PEI                                    |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10444 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10445 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10446 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M3                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10447 | A | Pull the PEA                                                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10448 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10449 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10450 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10451 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10452 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10453 | A | Respond by talking back via the PEI                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10454 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10455 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10456 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M3                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10457 | A | Pull the PEA                                                           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10458 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10459 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10460 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10461 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10462 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10463 | A | Respond by talking back via the PEI                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10464 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10465 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10466 | R | Read Defined Variable [TT] (MPU1) Li_UBK_M3StateResetPea = 1.0         |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10467 | A | Reset PEA using switch 44S6                                            |  | OK |   | Mlungisi Madela - 529927 | Train |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10468 | R | Read Defined Variable [TT]<br>(MPU1) Li_UBK_M3StateResetPea = 0.0          |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10469 | R | All M3 PEAs are reset                                                      |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10470 | I | Passenger Emergency Alarm 1 (PEA<br>44S11) on TC2                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10471 | A | Pull the PEA                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10472 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI                              |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10473 | R | A CCTV footage of TC2 camera 1 and 2<br>can be seen on the Driver's screen |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10474 | A | Press the button 54S3 to acknowledge<br>PEA communication request          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10475 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10476 | R | The person in the cabin can be heard from<br>the PEI speaker               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10477 | A | Respond by talking back via the PEI                                        |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10478 | R | Communication is established between<br>PEI and Driver cab                 |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10479 | A | Press the button 54S3 to end PEA<br>communication                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10480 | I | Passenger Emergency Alarm 2 (PEA<br>44S12) on TC2                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10481 | A | Pull the PEA                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10482 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI                              |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10483 | R | A CCTV footage of TC2 camera 1 and 2<br>can be seen on the Driver's screen |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10484 | A | Press the button 54S3 to acknowledge<br>PEA communication request          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10485 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10486 | R | The person in the cabin can be heard from<br>the PEI speaker               |  | OK |   | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10487 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10488 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10489 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10490 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC2                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10491 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10492 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10493 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10494 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10495 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10496 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10497 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10498 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10499 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10500 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC2                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10501 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10502 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10503 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10504 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10505 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10506 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10507 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10508 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10509 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10510 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC2                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10511 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10512 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10513 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10514 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10515 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10516 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10517 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10518 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10519 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10520 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC2                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10521 | A | Pull the PEA                                                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10522 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10523 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10524 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |



|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10525 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10526 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10527 | A | Respond by talking back via the PEI                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10528 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10529 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10530 | I | Call for Aid (CFA 54S5) on TC2                                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10531 | A | Press the SOS button 54S5                                               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10532 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10533 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10534 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10535 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC2           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10536 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10537 | A | Press the button 54S3 to acknowledge SOS communication request          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10538 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10539 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10540 | A | Respond by talking back via the PEI near 54S5                           |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10541 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10542 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10543 | A | Open and close doors left and right doors                               |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                                                                             |                                                                                     |    |   |                                    |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10544 | R | All doors are closed and in blue colour on DDU                                                                                              |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10545 | I | PEAs functional Test from TC2 cab                                                                                                           |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10546 | I | This is a quick test to verify that all PEAs work and can be reset from TC2                                                                 |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10547 | A | Insert Driver's Key and turn to ON position                                                                                                 |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10548 | A | Login as Driver using the code 70787878                                                                                                     |                                                                                     | OK |   | Mlungisi Madela - 529927           | Train |
| 10549 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0                                                                        |                                                                                     | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10550 | R |                                                                                                                                             |    | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10551 | A | Pull all the PEAs on Train                                                                                                                  |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10552 | R |                                                                                                                                             |    | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10553 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 1.0                                                                        |                                                                                     | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10554 | R |                                                                                                                                             |  | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10555 | A | Press the button 54S3 to acknowledge PEA communication request, continue to press the button until all but one PEAs have been acknowledged. |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10556 | R | Lamp 44H1 is ON                                                                                                                             |  | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10557 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc2pealoop = 1.0                                                                                 |                                                                                     | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10558 | A | Press and hold the button 54S4 while talking on the microphone                                                                              |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10559 | R | The person in the cabin can be heard from the PEI speaker                                                                                   |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10560 | I | It is not necessary to perform step below for all PEAs, one PEA is sufficient                                                               |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10561 | A | Respond by talking back via the PEI                                                                                                         |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10562 | R | Communication is established between PEI and Driver cab                                                                                     |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10563 | A | Reset all PEAs at using switch 44S6                                                                                                         |                                                                                     | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                                       |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------------------|-------|
| 10564 | R | All PEAs are reset, and a click sound can be heard while PEA returns to its normal state |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10565 | A | Open and close doors left and right doors                                                |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10566 | R | All doors are closed and in blue colour on DDU                                           |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10567 | R | Lamp 44H1 is OFF                                                                         |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10568 | R | No message on Pacis displays                                                             |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10569 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc2pealoo = 0.0                               |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10570 | R | No CCTV footage showing on Driver's screen                                               |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10571 | A | On the Event screen, check that there are no IOS related to doors or PEAs recorded       |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10572 | R | After test is completed, the DDU PEA screen should be as shown                           |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10573 | A | Repeat this test for 4 times                                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10574 | R | 1st attempt passed                                                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10575 | R | 2nd attempt passed                                                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10576 | R | 3rd attempt passed                                                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10577 | R | 4th attempt passed                                                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10578 | I | Public Announcements TC2                                                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10579 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10580 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10581 | A | Pulse the switch 54S1 to the right to activate PA announcement                           |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10582 | R | Green lamp 54H2 is ON                                                                    |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10583 | R | A beep sound can be heard in all saloon speakers                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10584 | R | On Driver's screen (Home Page), PA activation message is displayed                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                             |                                                                                   |    |   |                                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|---------------------------------------|-------|
| 10585 | A | Press the button 54S4 and hold it while talking via the microphone                                                                                          |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10586 | R | Announcement can be heard in saloon speakers of all cars                                                                                                    |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10587 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10588 | A | Talk on the microphone                                                                                                                                      |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10589 | R | No sound can be heard in all cars                                                                                                                           |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10590 | A | Pulse the switch 54S1 to the right to de-activate PA announcement                                                                                           |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10591 | A | Green lamp 54H2 is OFF                                                                                                                                      |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10592 | A | On the driver's screen (Image above) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10593 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR1 = 1.0                                                                                               |                                                                                   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10594 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 1.0                                                                                               |                                                                                   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10595 | R | Green lamp 54H2 is ON                                                                                                                                       |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10596 | R | PA announcement is activated                                                                                                                                |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10597 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                          |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10598 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                                                                                               |                                                                                   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10599 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10600 | R | Green lamp 54H2 is OFF                                                                                                                                      |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10601 | I | PA announcement is de-activated                                                                                                                             |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10602 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                           |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10603 | R | Sound cannot be heard in all speakers                                                                                                                       |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10604 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                  |                                                                                   |    |  |                                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|---------------------------------------|-------|
| 10605 | A | Remove active cab on TC1                                                                                                                         |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10606 | A | Pulse the switch 54S1 to the right to activate PA announcement                                                                                   |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10607 | R | Green lamp 54H2 is OFF                                                                                                                           |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10608 | R | No PA announcement activation showing on the Driver's screen                                                                                     |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10609 | I | Ventilation Rack TC2                                                                                                                             |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10610 | A | Follow the instruction below o how to test the ventilation rack                                                                                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10611 | R | All three fans of the ventilation rack are working                                                                                               |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10612 | I | Pacis audio and displays test                                                                                                                    |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10613 | I | This test is aimed at verifying that the Pacis system is working. This includes displays (all LEDs must be working in each display) and speakers |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10614 | A | Launch the Pacis Test from the DDU                                                                                                               |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10615 | R | All saloon speakers and displays are working on train                                                                                            |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10616 | A | Stop the Pacis test                                                                                                                              |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10617 | I | End of Test                                                                                                                                      |                                                                                   | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 29 – Dynamic Pre-Test

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### 29.1 Instructions list

### 29.1.1 Pre-DT-Pre-Test

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                               | File | Result status | Result value | Operator                  | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|---------------------------|---------|
| 10001 | I    | Dynamic Pre-Test                                                                                                                          |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10002 | I    | Train Normalisation                                                                                                                       |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10003 | A    | Whilst checking the LV cubicles in each Car, also check the dataplug ground cables if they are secured and tightened                      |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10004 | I    | TC1                                                                                                                                       |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10005 | R    | ALL LV1.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10006 | R    | ALL LV2.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10007 | R    | ALL LV7 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10008 | R    | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                                 |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10009 | R    | ALL underframe connectors are connected and tightly secured with screws                                                                   |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10010 | R    | ALL inter-car connectors are connected and tightly secured with screws                                                                    |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10011 | A    | Take note of the sensor grades captured on HVAC web portal for TC1 and compare them with the ones on the HVAC name plate (ceiling) of Tc1 |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10012 | R    | The values of the HVAC sensor grades are the same                                                                                         |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10013 | I    | M4                                                                                                                                        |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10014 | R    | ALL LV3 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10015 | R    | ALL LV6 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Alleta Sekgololo - 417407 | Train   |



|       |   |                                                                                                                                         |  |    |  |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10016 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10017 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10018 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10019 | A | Take note of the sensor grades captured on HVAC web portal for M4 and compare them with the ones on the HVAC name plate (ceiling) of M4 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10020 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10021 | I | M1                                                                                                                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10022 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10023 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10024 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10025 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10026 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10027 | A | Take note of the sensor grades captured on HVAC web portal for M1 and compare them with the ones on the HVAC name plate (ceiling) of M1 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10028 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10029 | I | M2                                                                                                                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10030 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10031 | R | ALL LV4 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10032 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                                                         |  |    |  |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10033 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10034 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10035 | A | Take note of the sensor grades captured on HVAC web portal for M2 and compare them with the ones on the HVAC name plate (ceiling) of M2 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10036 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10037 | I | M3                                                                                                                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10038 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10039 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10040 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10041 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10042 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10043 | A | Take note of the sensor grades captured on HVAC web portal for M3 and compare them with the ones on the HVAC name plate (ceiling) of M3 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10044 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10045 | I | TC2                                                                                                                                     |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10046 | R | ALL LV1.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10047 | R | ALL LV2.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10048 | R | ALL LV7 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10049 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                                                           |  |    |  |                           |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10050 | R | ALL underframe connectors are connected and tightly secured with screws                                                                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10051 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10052 | A | Take note of the sensor grades captured on HVAC web portal for TC2 and compare them with the ones on the HVAC name plate (ceiling) of TC2 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10053 | R | The values of the HVAC sensor grades are the same                                                                                         |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10054 | I | Brake Test                                                                                                                                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10055 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10056 | A | On the DDU test screen, run the BRAKE TEST by following the instructions on the screen                                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10057 | R | After the BRAKE TEST is complete, all cars have passed                                                                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10058 | A | Shut down the train by putting the battery contactor 18S1 in OFF position                                                                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10059 | I | Reduced Power Test                                                                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10060 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10061 | A | Set the Driving Mode Switch (30S1) to "DEPOT" position.                                                                                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10062 | A | Select the Reduced Power test on the DDU. (select one of the HV devices on the Home screen and access the Reduced Power Test)             |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10063 | A | Select a running direction (Forward or Reverse).                                                                                          |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10064 | I | REMEMBER TO PRESS THE DEAD MAN BUTTON OCCASIONALLY                                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10065 | R | Check that all the conditions on the screen are satisfied (green box to the right of each condition)                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10066 | A | Select RPT for M4 car                                                                                                                     |  | OK |  | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                                                  |  |    |          |                           |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|----------|---------------------------|-------|
| 10067 | R | RPT for M4 test successful                                                                                                       |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10068 | A | Close the HSCB                                                                                                                   |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10069 | A | Select RPT for M1car                                                                                                             |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10070 | R | RPT for M1 test successful                                                                                                       |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10071 | A | Close the HSCB                                                                                                                   |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10072 | A | Select RPT for M2 car                                                                                                            |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10073 | R | RPT for M2 test successful                                                                                                       |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10074 | A | Close the HSCB                                                                                                                   |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10075 | A | Select RPT for M3 car                                                                                                            |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10076 | R | RPT for M3 test successful                                                                                                       |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10077 | A | Close the HSCB                                                                                                                   |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10078 | I | Traction Test                                                                                                                    |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10079 | A | WARNING: Do not perform TRACTION TEST when the Reduced Power Test has failed.                                                    |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10080 | A | Prepare the train in high voltage with active cab on TC1                                                                         |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10081 | A | On the DDU Test Screen, press the virtual button TRACTION TEST and ensure that all the requirements are met to execute the test. |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10082 | R | After the Traction Test is complete, there are no traction faults logged on the DDU Event screen                                 |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10083 | I | Load requirements                                                                                                                |  | OK |          | Alleta Sekgololo - 417407 | Train |
| 10084 | R | Read Undefined Variable [TT] SBK_M1CarWeight                                                                                     |  | OK | 36465.39 | Alleta Sekgololo - 417407 | Train |
| 10085 | R | Read Undefined Variable [TT] SBK_M2CarWeight                                                                                     |  | OK | 39069.04 | Alleta Sekgololo - 417407 | Train |
| 10086 | R | Read Undefined Variable [TT] SBK_M3CarWeight                                                                                     |  | OK | 35086.85 | Alleta Sekgololo - 417407 | Train |
| 10087 | R | Read Undefined Variable [TT] SBK_M4CarWeight                                                                                     |  | OK | 35676.27 | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                         |  |    |           |                              |       |
|-------|---|-------------------------------------------------------------------------|--|----|-----------|------------------------------|-------|
| 10088 | R | Read Undefined Variable [TT]<br>SBK_Tc1CarWeight                        |  | OK | 34065.62  | Alleta Sekgololo -<br>417407 | Train |
| 10089 | R | Read Undefined Variable [TT]<br>SBK_Tc2CarWeight                        |  | OK | 33432.69  | Alleta Sekgololo -<br>417407 | Train |
| 10090 | A | Calculate the sum of all cars                                           |  | OK |           | Alleta Sekgololo -<br>417407 | Train |
| 10091 | R | The sum of the weight for all cars<br>Result Max : $x \leq 223740$ (kg) |  | OK | 213795.86 | Alleta Sekgololo -<br>417407 | Train |
| 10092 | I | End of Test                                                             |  | OK |           | Alleta Sekgololo -<br>417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS254 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007371<br>Version: A0 | Emission date<br>30/10/2024 |
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## Section 30 – Report summaries

### 30.1 Results status

| Test Instruction Sheet                  | Compliant | Incomplete | Non-compliant |
|-----------------------------------------|-----------|------------|---------------|
| Train Ground Communication              | X         |            |               |
| Traction Interlock                      | X         |            |               |
| Traction Converter                      | X         |            |               |
| Service Brake                           | X         |            |               |
| Rescue Mode and Emergency Disconnection | X         |            |               |
| Passenger Doors                         | X         |            |               |
| Pantograph                              | X         |            |               |
| PACIS                                   | X         |            |               |
| On-board train data recorder            | X         |            |               |
| Monitoring Circuit Breakers             | X         |            |               |
| Main Circuit Breaker Control            | X         |            |               |
| Internal Lighting                       | X         |            |               |
| Holding and Parking Brake               | X         |            |               |
| High Voltage Distribution               | X         |            |               |
| Fire Detection                          | X         |            |               |
| External lights and Signaling           | X         |            |               |
| ERTMS                                   | X         |            |               |
| Energy Distribution 400V AC             | X         |            |               |
| Energy Distribution 110V                | X         |            |               |
| Emergency Brake Interlock               | X         |            |               |
| Dynamic Pre-Test                        | X         |            |               |
| Driving Command                         | X         |            |               |
| Deadman                                 | X         |            |               |
| Computer Network and DDU Screen         | X         |            |               |
| CCTV Video Information                  | X         |            |               |



|                  |   |  |  |
|------------------|---|--|--|
| Cabin Control    | X |  |  |
| Air Production   | X |  |  |
| Air Conditioning | X |  |  |

## 30.2 Tools used

| Function | Tool name               | Tool number            |
|----------|-------------------------|------------------------|
| 019_AIR  | Manometro               | Manometer              |
| 025_NET  | Cable Analyser DSX5000  | Cable analyser DSX5000 |
| 040_SBK  | Manometro               | Manometer              |
| 040_SUP  | Manometro               | Manometer              |
| 044_UBK  | Manometro               | Manometer              |
| 045_PBK  | Manometro               | Manometer              |
| 050_DOR  | NContrôleur de pression | Pressure Meter 1       |
| 072_SGL  | Manometro               | Manometer              |

| Vehicle | Equipment | Expected version | Version loaded |
|---------|-----------|------------------|----------------|
| Train   |           |                  |                |