

| PROJECT         | CUSTOMER | TRAIN     |
|-----------------|----------|-----------|
| Xtrapolis-PRASA | PRASA    | 252 – TFS |

RTR Train Functional Static Testing TS252 Report  
 GIB0000007339



|                  | CREATED         | VERIFIED       | APPROVED        | DISTRIBUTION  |
|------------------|-----------------|----------------|-----------------|---|
| <b>Name</b>      | Neliswa MABUNDA | 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"/> |
| <b>Date</b>      | 23/10/2024      | 23/10/2024     | 23/10/2024      | Control Category<br><i>Controlled</i> <i>Not Controlled</i><br><input checked="" type="checkbox"/> <input type="checkbox"/>   |
| <b>Signature</b> |                 |                |                 | Language<br><b>EN</b>   |

**This report has been automatically generated from TES version 1**

### Table of modifications

| Rev | Date       | Modifications Content | Writer          |
|-----|------------|-----------------------|-----------------|
| A0  | 23/10/2024 | Creation              | Neliswa MABUNDA |

### Internal validations

|                 | Name            | Function            | Date       | Signature  |
|-----------------|-----------------|---------------------|------------|--|
| <b>Creator</b>  | Neliswa MABUNDA | EPU Manager         | 23/10/2024 | X <br>Neliswa MABUNDA<br>EPU Manager         |
| <b>Verifier</b> | Sifiso LUKHELE  | Serial Test Manager | 23/10/2024 | X <br>Sifiso LUKHELE<br>Serial Test Manager |
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### Execution Plan

|                   |            |
|-------------------|------------|
| <b>Start Date</b> | 18/10/2024 |
| <b>End Date</b>   | 23/10/2024 |

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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            |              | Siphehile Mchunu - 491465      | Train   |
| 10002 | I    | Initial Conditions   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10003 | I    | Train powered in normal mode with only battery power   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10004 | A    | Activate Cab on TC1  |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10005 | A    | Close the battery contactor 18S1   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10006 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized  |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10007 | R    | After few minutes, the TCMS has successfully initialized on the DDU screen   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10008 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized  |  | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10009 | R    | The Battery Voltage on the Voltage line module is 110V   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10010 | R    | On the Driver Screen, the battery voltage is the same as in the line module (110V)   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10011 | I    | Parameter Update   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |
| 10012 | A    | Perform the following procedure to update the Energy saving parameters   |  | OK            |              | Mbavhalelo Funyufunyu - 484649 | Train   |
| 10013 | I    | CVS Firmware Update/SW Update  |  | OK            |              | Nokuzola Mdluli - 491469       | 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            |              | Nokuzola Mdluli - 491469       | Train   |
| 10015 | I    | Power supply check for Equipment on Permanent line   |   | OK            |              | Siphehile Mchunu - 491465      | Train   |

|       |   |  |  |    |  |                            |       |
|-------|---|--|--|----|--|----------------------------|-------|
| 10016 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10017 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10018 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10019 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10020 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10021 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10022 | A | Remove active cab on TC1   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10023 | I | Train preparation on TC2 cab   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10024 | A | Insert the Driver's Master key on TC2, turn it to ON position and close battery contactor 18S1 |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10025 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10026 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10027 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10028 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10029 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10030 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Siphesihle Mchunu - 491465 | Train |

|       |   |  |   |    |  |                            |       |
|-------|---|--|---|----|--|----------------------------|-------|
| 10031 | A | Shutdown the train by opening the battery contactor 18S1   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10032 | R | Train is successfully shutdown   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10033 | I | Battery Low Watchdog   |   | OK |  | Siphesihle Mchunu - 491465 | 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 |  | Siphesihle Mchunu - 491465 | Train |
| 10035 | A | On TC2, turn ON the cleaning lights switch 52S6  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10036 | R | Emergency lighting is ON in all cars   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10037 | A | Remove the relay 15K1 from its base  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10038 | R | Emergency lighting is OFF in all cars  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10039 | A | Put back the relay 15K1 on its base  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10040 | A | Walk to the TC2 CVS Agate compartment and confirm that the CVS Agate is not powered  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10041 | R | The CVS Agate is OFF   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10042 | A | Switch On the train on TC1 side  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10043 | A | Shutdown the train by opening the battery contactor 18S1   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10044 | A | Turn the switch 52S6 to switch ON the cleaning lights  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10045 | A | Remove the relay 15K1 from its base  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10046 | R | The emergency lighting is OFF in all cars  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10047 | A | Put back the relay on its base   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10048 | A | Walk to the TC1 CVS Agate compartment and confirm that the CVS Agate is not powered  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10049 | R | The CVS Agate is OFF   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10050 | I | Train Earthing Procedure   |  | OK |  | Siphesihle Mchunu - 491465 | Train |

|       |   |  |  |    |  |                            |       |
|-------|---|--|--|----|--|----------------------------|-------|
| 10051 | R | The train is successfully isolated and earthed.              |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10052 | A | Normalize the train  |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10053 | R | The train is normalized.                                     |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10054 | R | Check the IOS status to see if both PANTOS are NOT isolated. |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10055 | I | End of Test  |  | OK |  | Siphesihle Mchunu - 491465 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10002 | I    | Initial Conditions   |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10003 | I    | TCMS should be working on train  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10004 | I    | No high voltage present on catenary  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10005 | I    | Start of Test  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10006 | A    | Activate the Cab on TC2  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10007 | A    | Close the battery contactor 18S1   |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10008 | I    | Wait for the TCMS to successfully initialize, then do the steps below      |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1__1 = 1.0 |      | OK            | 1            | Sizwe Sibanyoni - 484647 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnection1 = 1.0     |      | OK            | 1            | Sizwe Sibanyoni - 484647 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2__1 = 1.0 |      | OK            | 1            | Sizwe Sibanyoni - 484647 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnection2 = 1.0     |      | OK            | 1            | Sizwe Sibanyoni - 484647 | Train   |
| 10013 | A    | Trip the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment              |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr1__1 = 0.0 |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2__1 = 0.0 |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10016 | R    | Read Defined Variable [TT]   |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |

|       |   |  |    |   |                          |       |  |
|-------|---|--|----|---|--------------------------|-------|--|
|       |   | (MPU1)Li_NRG_Tc2DcDcGateDriveR1___1 = 0.0                                      |    |   |                          |       |  |
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2___1 = 0.0        | OK | 0 | Sizwe Sibanyoni - 484647 | Train |  |
| 10018 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10019 | A | Timer 30.0 S   | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10020 | A | Reset the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment                 | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10021 | A | Trip the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment                   | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 1.0        | OK | 1 | Sizwe Sibanyoni - 484647 | Train |  |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 1.0        | OK | 1 | Sizwe Sibanyoni - 484647 | Train |  |
| 10024 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10025 | A | Timer 30.0 S   | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10026 | A | Reset the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment                  | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10027 | A | Activate the Cab on TC1  | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10028 | A | Close the battery contactor 18S1   | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10029 | I | Wait for the TCMS to successfully initialize, then do the steps below          | OK |   | Sizwe Sibanyoni - 484647 | Train |  |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 1.0    | OK | 1 | Sizwe Sibanyoni - 484647 | Train |  |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0        | OK | 1 | Sizwe Sibanyoni - 484647 | Train |  |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0    | OK | 1 | Sizwe Sibanyoni - 484647 | Train |  |
| 10033 | R | Read Defined Variable [TT]   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |  |

|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
|       |   | (MPU1)lo_nrg_tc2batteryconnection2 = 1.0                                       |    |   |                          |       |
| 10034 | A | Trip the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battcontactclosedr1___1 = 0.0       | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battcontactclosedr2___1 = 0.0       | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 0.0           | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 0.0           | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10039 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10040 | A | Timer 30.0 S   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10041 | A | Reset the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                 | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10042 | A | Trip the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 1.0           | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 1.0           | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10045 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10046 | A | Timer 30.0 S   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10047 | A | Reset the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10048 | I | Automatic Train Preparation & Auxiliary Converter Status                       | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1automaticstartr1 = 0.0              | OK | 0 | Sizwe Sibanyoni - 484647 | Train |

|       |   |  |  |    |   |                             |       |
|-------|---|--|--|----|---|-----------------------------|-------|
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr2 = 0.0                                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10051 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 1.0   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10052 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 1.0   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10053 | A | Timer 5.0 S  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                     |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr2 = 0.0                                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaulttr2 = 1.0                                    |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10057 | R | Lamp 18H1 is ON  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10058 | R | The ACU on TC1 and TC2 are not operational, the ACU appears in Grey colour on the DDU maintenance screen |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 0.0                                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 0.0                                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 0.0                                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 0.0                                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1 = 1.0                                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 = 1.0                                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 1.0  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 1.0  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |  |   |    |   |                          |       |
|-------|---|--|---|----|---|--------------------------|-------|
| 10067 | A | Switch on 3 kV DC on the catenary  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr1 = 1.0          |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr1 = 1.0          |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1 = 0.0 |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 = 0.0 |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10072 | R | Aux with reduced performance, lamp 18H1 is OFF                           |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0      |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10074 | R | Both ACUs are operational  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1___1 = 1.0  |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2___1 = 1.0  |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 1.0  |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 1.0  |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10079 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr1                         |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10080 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr2                         |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10081 | I | ACU Isolation and Bypass   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1___1 = 1.0      |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1___1 = 1.0      |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10084 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position                             |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 1.0                    |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 0.0                      |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 1.0                      |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10088 | I | The help contactor closes on M2 car  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 1.0                      |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10090 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10091 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position                               |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10092 | A | Press the button 22S12 to open HSCB  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10093 | R | Button lamp 22S12 is ON  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10094 | A | Press the button 22S11 to close HSCB   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10095 | R | Button lamp 22S12 is OFF   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10096 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 0.0                    |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 0.0                      |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10099 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position on TC2                      |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 1.0                    |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 1.0                      |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 0.0                      |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10103 | I | The help contactor closes on M2 car  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |

|       |   |  |    |   |                             |       |
|-------|---|--|----|---|-----------------------------|-------|
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 1.0                   | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10105 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10106 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC2                        | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10107 | A | Press the button 22S12 to open HSCB  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10108 | A | Press the button 22S11 to close HSCB   | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10109 | R | Both ACUs are operational on DDU Driver's screen                                     | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0                  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 0.0                   | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10112 | I | ACU Fault simulation   | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10113 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC1          | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10114 | A | Lamp 18H1 is ON in the alarm module  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10115 | A | Timer 20.0 S   | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                   | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10117 | A | Close the ACU AGATE circuit breaker  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10118 | A | Timer 30.0 S   | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10119 | A | Open HSCB  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                   | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10121 | A | Close HSCB   | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10122 | R | Lamp 18H1 is OFF in the alarm module   | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10123 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC2          | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10124 | A | Lamp 18H1 is ON in the alarm module  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10125 | A | Timer 20.0 S   | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |  |   |    |   |                          |       |
|-------|---|--|---|----|---|--------------------------|-------|
| 10126 | A | Close the ACU AGATE circuit breaker  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10127 | A | Timer 30.0 S   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10128 | A | Open HSCB  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10129 | A | Close HSCB   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10130 | I | Verifying Aux Converter Output   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10131 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position on TC1 and TC2                 |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10132 | I | ACU stops working in TC1 and TC2 car   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                       |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10134 | R | Lamp 18H1 is ON in the alarm module  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10135 | I | This test is performed to verify that the ACUs can supply all the loads without tripping |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10136 | A | Open the circuit breaker 19Q2 on TC1   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10137 | A | Open the circuit breaker 57Q1 for all HVAC units   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10138 | A | Open the circuit breaker 19Q2 TC2  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0                         |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0                          |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0                          |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0                          |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0                          |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0                         |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0                        |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                        |   | OK | 0 | Sizwe Sibanyoni - 484647 | Train |

|       |   |  |   |    |   |                          |       |
|-------|---|--|---|----|---|--------------------------|-------|
| 10147 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC1 and TC2  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10148 | I | ACU starts working on TC1 and TC2  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10149 | A | Close the circuit breaker 19Q2 TC1   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10150 | A | Close the circuit breaker 57Q1 for all HVAC units  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10151 | I | It is necessary to check on the DDU screen for HVAC status   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 1.0  |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 1.0   |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 1.0   |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 1.0   |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 1.0   |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 1.0  |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10158 | A | Close the circuit breaker 19Q2 TC2   |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0   |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0   |   | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10161 | R | Verify the circuit breaker 18Q2 ACU on TC1 and TC2 have not tripped  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10162 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr1  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10163 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr2  |   | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10164 | I | Shore supply 400Vac  |   | OK |   | Sizwe Sibanyoni - 484647 | 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 |   | Sizwe Sibanyoni - 484647 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 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 |   | Sizwe Sibanyoni - 484647 | Train |
| 10167 | A | Press the button 22S12 to open the HSCB  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10168 | A | Press switch 21S1 to lower both pantographs  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0  |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0  |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10173 | A | Connect the shore supply on TC1 ACU  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0  |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10178 | A | Press switch 21S1 to raise both pantographs  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10179 | A | Close HSCB using the button 22S11  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10180 | I | It is not possible to close HSCB with shore supply connected   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10182 | A | Remove shore supply from TC1 ACU   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |

|       |   |   |  |    |   |                             |       |
|-------|---|---|--|----|---|-----------------------------|-------|
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10187 | A | Connect the shore supply on TC2 ACU   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10192 | A | Close HSCB using the button 22S11   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10193 | I | It is not possible to close HSCB with shore supply connected  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosebr1 = 0.0  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10195 | A | Remove shore supply from TC2 ACU  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10196 | I | Shore Supply with 3kV present   |  | OK |   | Sizwe Sibanyoni -<br>484647 | 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 |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10198 | A | Close HSCB using the button 22S11   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosebr1 = 1.0  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10202 | A | Connect the shore supply on TC1 ACU   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |   |  |    |   |                             |       |
|-------|---|---|--|----|---|-----------------------------|-------|
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0        |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 =<br>0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply___1 = 0.0         |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply___1 = 0.0         |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10207 | A | Force [TT]<br>(MPU1)li_nrg_tc1shoresupply___1 = 1.0                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 =<br>1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10210 | R | The HSCBs open  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10211 | A | Release [TT]<br>(MPU1)li_nrg_tc1shoresupply___1                             |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10212 | A | Remove shore supply from TC1 ACU  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1___1 =<br>1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10215 | A | Close HSCB using the button 22S11   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1<br>= 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1___1 =<br>0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10218 | A | Connect the shore supply on TC2 ACU   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0        |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 =<br>0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |   |  |    |   |                             |       |
|-------|---|---|--|----|---|-----------------------------|-------|
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10223 | A | Force [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                      |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10226 | R | The HSCBs open  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10227 | A | Release [TT]<br>(MPU1)li_nrg_tc2shoresupply__1                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10228 | A | Remove shore supply from TC2 ACU  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10231 | A | Close HSCB  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10232 | R | Both ACUs are operational   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10233 | I | ACU reverse mode  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10234 | A | Open HSCB   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10235 | R | Verify on the DDU that the HSCB is open on M1 and M2                    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10236 | R | Verify on the DDU that all HVACs are only operating in Ventilation mode |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10237 | R | Verify on the DDU that both CVS are operating in reverse mode           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10238 | R | Verify on the DDU that both MASU are not running                        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10239 | A | Switch ON the 3kV DC on the catenary                                    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10240 | A | Close HSCB using button 22S11   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10241 | R | Line voltage indicator shows at least 2.7kV DC   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10242 | R | Verify on the DDU that the HSCB is closed on M1 and M2                                     |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10243 | R | Verify on the DDU that all HVACs are operating under normal condition                      |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10244 | I | Automatic Train De-preparation & Auxiliary Converter status TC2                            |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10245 | A | Press the Automatic start button 20S1 on the Driver's Desk or Virtual button on DDU screen |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10246 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1automaticstartr2 = 0.0                          |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10247 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2automaticstartr1 = 0.0                          |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10248 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0  |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10249 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10250 | R | Train is in LV ready   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10251 | I | Automatic train preparation and de-preparation on TC2                                      |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10252 | A | Insert the Driver's master key on TC2 and turn it to ON position                           |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10253 | A | Close the battery contactor 18S1   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10254 | A | After the TCMS successful initialization, press the automatic start button 20S1            |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10255 | R | Train is prepared in high voltage  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10256 | A | Press the automatic start button 20S1 to de-prepare the train                              |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10257 | R | Train is in LV ready   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10258 | A | Open the battery contactor 18S1 to shut down the train                                     |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10259 | R | After few seconds, the train is successfully shutdown                                      |  | OK |   | Sizwe Sibanyoni - 484647 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10260 | A | Close the battery contactor 18S1   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10261 | A | Wait for the TCMS to successfully initialize   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10262 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr1___1 = 1.0                           |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr2___1 = 1.0                           |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10265 | A | Release battery contactor 18S1   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10266 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10267 | A | Insert the Driver's master key on TC1 and turn it to ON position                               |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10268 | A | Close the battery contactor 18S1   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10269 | A | Wait for the TCMS to successfully initialize   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10270 | R | Train is in LV ready   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10271 | A | Open the battery contactor 18S1 to shut down the train   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10272 | A | Close the battery contactor 18S1   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10273 | A | Wait for the TCMS to successfully initialize   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10274 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr1___1 = 1.0                           |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr2___1 = 1.0                           |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10277 | A | Release battery contactor 18S1   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10278 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10279 | I | End of test  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |



|   |  |                             |
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| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|



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| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
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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            |              | Anthonia Mabowa - 494131 | Train   |
| 10002 | I    | TCMS Network Loop   |      | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10003 | I    | This is a reflectometry test to check the TCMS complete loop  |      | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10004 | I    | Please save each result on the Fluke using the cable number given per line  |      | OK            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | 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            |              | Ntobeko Ndlovu - 421595  | 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            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | Train   |
| 10010 | R    | There is good connection between CRS2-M4[25A11] port X3 and CRS2-M2[25A11] port X4 TSX T06                            |      | OK            |              | Anthonia Mabowa - 494131 | Train   |

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|       |   |   |  |    |  |                          |       |
|-------|---|---|--|----|--|--------------------------|-------|
|       |   | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | Train |
| 10017 | I | Pacis Network Loop  |  | OK |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | Train |
| 10020 | R | There is good connection between CRS2-M4[54A11]port X8 and CRS1-M2[54A10]port X7 TSX P03                            |  | OK |  | Anthonia Mabowa - 494131 | 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>Cable is crossed  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10022 | R | There is good connection between CRS2-M2[54A11]port X8 and CRS1-TC2[54A10]port X7 TSX P05<br>Cable is crossed |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10023 | R | There is good connection between CRS1-M3[54A10]port X7 and TRS1-TC2[54A13]ETH7 TSX P06<br>Cable is crossed    |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10024 | A | Download the results from the Fluke into a PDF format and upload it below                                     |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10025 | I | MCE Redundancy Test   |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10026 | A | Switch ON the train in TC1 in Normal mode   |  | OK |   | Carol Gumedé - 425280    | Train |
| 10027 | I | MCE in TC1 should be the master MCE to begin the test   |  | OK |   | Carol Gumedé - 425280    | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)NET_LocalMceIsMaster = 1.0   |  | OK | 1 | Carol Gumedé - 425280    | Train |
| 10029 | R | Read Defined Variable [TT] (MPU2)NET_LocalMceIsMaster = 0.0   |  | OK | 0 | Carol Gumedé - 425280    | Train |
| 10030 | A | Open the circuit breaker 40Q1 in TC1  |  | OK |   | Carol Gumedé - 425280    | Train |
| 10031 | I | The MCE in TC2 becomes the master MCE   |  | OK |   | Carol Gumedé - 425280    | Train |
| 10032 | R | Read Defined Variable [TT] (MPU2)NET_LocalMceIsMaster = 1.0   |  | OK | 1 | Carol Gumedé - 425280    | Train |
| 10033 | A | Close circuit breaker 40Q1 in TC1   |  | OK |   | Carol Gumedé - 425280    | Train |
| 10034 | A | Open circuit breaker 40Q1 in TC2  |  | OK |   | Carol Gumedé - 425280    | Train |
| 10035 | I | The MCE in TC1 becomes the Master   |  | OK |   | Carol Gumedé - 425280    | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)NET_LocalMceIsMaster = 1.0   |  | OK | 1 | Carol Gumedé - 425280    | Train |
| 10037 | A | Close the circuit breaker 40Q1 in TC2   |  | OK |   | Carol Gumedé - 425280    | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10040 | A | Go to software version on DDU and select<br>RUN BL.            |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10041 | R | The Train Baseline is : 1.8/10.1/10.2                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10042 | I | End of Test  |  | OK |   | Carol Gumedé -<br>425280 | Train |



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| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
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## 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            |              | Siphehile Mchunu - 491465 | Train   |
| 10002 | I    | Initial Conditions  |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10003 | I    | This test is to verify the correct operation of the main high voltage circuit breaker.  |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10004 | I    | Train in LV ready   |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10005 | I    | The catenary should be switched OFF   |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10006 | I    | Circuit breaker 34Q1 should be closed in all Propulsion boxes   |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10007 | I    | No Fire Detection alarm on the DDU screen   |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10008 | I    | Start Test  |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10009 | I    | HSCB control without High Voltage   |      | OK            |              | Siphehile Mchunu - 491465 | 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            |              | Siphehile Mchunu - 491465 | Train   |
| 10011 | I    | The button 27S5 should not be pressed on both cars  |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10012 | A    | Active Cab on TC1   |      | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 0.0   |      | OK            | 0            | Siphehile Mchunu - 491465 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 0.0   |      | OK            | 0            | Siphehile Mchunu - 491465 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 0.0   |      | OK            | 0            | Siphehile Mchunu - 491465 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 0.0   |      | OK            | 0            | Siphehile Mchunu - 491465 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 0.0  |      | OK            | 0            | Siphehile Mchunu - 491465 | Train   |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 0.0    | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 0.0    | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 0.0    | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 1.0    | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 1.0    | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 1.0    | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 1.0    | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0 | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0 | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10031 | A | Press the button 21S1 to raise<br>Pantographs                 | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10032 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 =<br>1.0           | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10033 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 =<br>1.0           | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10034 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 =<br>1.0           | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10035 | A | Force [TT]  | OK |   | Siphehile Mchunu -<br>491465 | Train |

|       |   |   |    |   |                              |       |  |
|-------|---|---|----|---|------------------------------|-------|--|
|       |   | (MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 = 1.0                                |    |   |                              |       |  |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc1firedetection = 0.0 | OK | 0 | Siphehile Mchunu -<br>491465 | Train |  |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc2firedetection = 0.0 | OK | 0 | Siphehile Mchunu -<br>491465 | Train |  |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 1.0     | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 1.0     | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 1.0     | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 1.0     | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0        | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0        | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0        | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0        | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0      | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0      | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0      | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0      | OK | 1 | Siphehile Mchunu -<br>491465 | Train |  |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0        | OK | 0 | Siphehile Mchunu -<br>491465 | Train |  |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0        | OK | 0 | Siphehile Mchunu -<br>491465 | Train |  |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0        | OK | 0 | Siphehile Mchunu -<br>491465 | Train |  |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0        | OK | 0 | Siphehile Mchunu -<br>491465 | Train |  |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr2 = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10056 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10057 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10058 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10059 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10060 | A | Press the button 21S1 to lower<br>pantographs  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10061 | I | Traction Converter Isolation TC1   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10062 | A | Switch ON the 3kV DC on the catenary   | OK |   | Siphehile Mchunu -<br>491465 | 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 |   | Siphehile Mchunu -<br>491465 | Train |
| 10064 | A | Press the button 21S1 to raise<br>pantographs  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10065 | A | Press the button 22S11 to close HSCBs  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10066 | R | Button lamp 22S11 is ON  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpr1 = 1.0   | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpr1 = 0.0   | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10077 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2          | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0               | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                       | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0               | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0                 | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0                 | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10086 | A | Press the button 22S11 to close HSCB  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10087 | A | Both HSCBs are closed   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10088 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10089 | A | Open HSCBs  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10090 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10091 | A | Press the button 22S11 to close HSCB  | OK |   | Siphehile Mchunu -<br>491465 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10092 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 0.0               |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 1.0               |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 1.0                       |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr2 = 0.0                 |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr2 = 1.0                 |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10101 | A | Press the button 22S11 to close HSCB   |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10102 | A | Both HSCBs are closed  |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10103 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10104 | A | Open HSCBs   |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10105 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10106 | A | Press the button 22S11 to close HSCB   |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10107 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10108 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 1.0               |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 1.0               |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 1.0                       |  | OK | 1 | Siphehile Mchunu - 491465 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                       | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                   | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0                   | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10116 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10117 | A | Press the button 22S11 to close HSCB  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10118 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10119 | R | All Traction units are in service and<br>operational                            | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10120 | A | Press the button 22S12 to open the<br>HSCBs                                     | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0                   | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                   | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10123 | A | Press the button 21S1 to lower both<br>pantographs                              | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10124 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                          | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10125 | A | Remove active cab on TC1  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10126 | I | HSCB Operation with High Voltage  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10127 | A | Active Cab on TC2   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10128 | A | Press the button 21S1 to raise both<br>pantographs                              | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10129 | R | Both pantographs are raised successfully  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10130 | R | The voltage on the Line Voltage Indicator<br>module is at least 2.7 kV DC       | OK |   | Siphehile Mchunu -<br>491465 | Train |

|       |   |   |  |    |   |                            |       |
|-------|---|---|--|----|---|----------------------------|-------|
| 10131 | A | Press the button 22S11 to close HSCBs                                   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0    |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0              |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0              |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0              |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0              |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0            |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0            |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0            |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0            |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0              |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0              |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0              |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0              |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10146 | I | Traction Converter Isolation TC2  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 0.0       |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 1.0       |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10158 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0      | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0              | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0        | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0        | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10165 | A | Press the button 22S11 to close HSCB                                   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10166 | A | Both HSCBs are closed  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10167 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position | OK |   | Siphehile Mchunu -<br>491465 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10168 | A | Open HSCBs   |  | OK |   | Siphehile Mchunu - 491465 | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0            |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0            |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                    |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                    |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0              |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0              |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10180 | A | Press the button 22S11 to close HSCB   |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10181 | A | Both HSCBs are closed  |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10182 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10183 | A | Open HSCBs   |  | OK |   | Siphehile Mchunu - 491465 | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0            |  | OK | 1 | Siphehile Mchunu - 491465 | Train |

|       |   |   |  |    |   |                               |       |
|-------|---|---|--|----|---|-------------------------------|-------|
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10195 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Siphesihle Mchunu -<br>491465 | 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 |   | Siphesihle Mchunu -<br>491465 | Train |
| 10199 | I | End of test   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Sicelo Mtolo - 525130 | Train   |
| 10002 | I    | Initial Condition  |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10003 | I    | Backup switch should be in Normal Position                                   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10004 | I    | Train should be OFF  |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10005 | I    | Start Test   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10006 | I    | Cab Active TC1   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10007 | A    | Insert Driver's Master key and turn it to ON position                        |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10008 | A    | Close the battery contactor 18S1   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10009 | R    | Train successfully start up in normal mode                                   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10010 | A    | Put the direction selector switch to FORWARD position                        |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10011 | A    | Try to put the Driver's master key in OFF position or remove it from the cab |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10012 | R    | It is not possible to remove or turn the Driver's master key                 |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10013 | A    | Put the direction selector switch to NEUTRAL position                        |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0            |      | OK            | 1            | Sicelo Mtolo - 525130 | Train   |
| 10015 | A    | Turn key to non-active cab   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10016 | A    | Open and close circuit breaker 20Q2  |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0             |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0             |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |

|       |   |   |    |   |                       |       |
|-------|---|---|----|---|-----------------------|-------|
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0          | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 1.0          | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0          | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 1.0       | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 0.0       | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 1.0       | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 1.0       | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 1.0       | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 1.0          | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 1.0          | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 1.0 | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 1.0 | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10031 | A | Active cab on TC1   | OK |   | Sicelo Mtolo - 525130 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0       | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 1.0        | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0        | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 0.0          | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 0.0          | OK | 0 | Sicelo Mtolo - 525130 | Train |

|       |   |  |  |    |   |                            |       |
|-------|---|--|--|----|---|----------------------------|-------|
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_CAB_Tc1KeyRelayR3 = 0.0   |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_CAB_Tc1KeyRelayR4 = 0.0   |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 0.0  |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 1.0  |  | OK | 1 | Sicelo Mtolo - 525130      | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 0.0  |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)li_CAB_Tc1CabinActiveR4 = 0.0  |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_CAB_Tc1CabinActiveR5 = 0.0  |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 1.0  |  | OK | 1 | Sicelo Mtolo - 525130      | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 0.0  |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10046 | I | Train Preparation with Automatic Start button TC1  |  | OK |   | Sicelo Mtolo - 525130      | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0   |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10048 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0   |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10049 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0  |  | OK | 0 | Sicelo Mtolo - 525130      | Train |
| 10050 | A | Press the automatic start button 20S1  |  | OK |   | Sicelo Mtolo - 525130      | Train |
| 10051 | R | Button lamp 20S1 will flash during train preparation and then light steady after preparation process is finish |  | OK |   | Impi Tsela - 435647        | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0   |  | OK | 1 | Impi Tsela - 435647        | Train |
| 10053 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0   |  | OK | 1 | Impi Tsela - 435647        | Train |
| 10054 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0  |  | OK | 2 | Siphesihle Mchunu - 491465 | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10055 | I | Train De-preparation with Automatic Start button TC1                             |  | OK |   | Impi Tsela - 435647 | Train |
| 10056 | A | Press the automatic start button 20S1  |  | OK |   | Impi Tsela - 435647 | Train |
| 10057 | A | Timer 5.0 S  |  | OK |   | Impi Tsela - 435647 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0             |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10059 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                           |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10060 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                            |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10061 | A | Remove active cab on TC1   |  | OK |   | Impi Tsela - 435647 | Train |
| 10062 | I | Standby mode TC1   |  | OK |   | Impi Tsela - 435647 | Train |
| 10063 | A | Active cab on TC1  |  | OK |   | Impi Tsela - 435647 | Train |
| 10064 | A | Press the automatic start button 20S1  |  | OK |   | Impi Tsela - 435647 | Train |
| 10065 | A | Remove active Cab on TC1   |  | OK |   | Impi Tsela - 435647 | Train |
| 10066 | A | Manually isolate EB on M4 using the pneumatic cock C2.3/1                        |  | OK |   | Impi Tsela - 435647 | Train |
| 10067 | A | Press the standby mode button 20S2 and maintain it                               |  | OK |   | Impi Tsela - 435647 | Train |
| 10068 | A | Manually isolate EB on TC1 using the pneumatic cock C1.3/1                       |  | OK |   | Impi Tsela - 435647 | Train |
| 10069 | R | The pantograph lower and both HSCB open, then the train shuts down automatically |  | OK |   | Impi Tsela - 435647 | Train |
| 10070 | A | Normalize the cock on M4   |  | OK |   | Impi Tsela - 435647 | Train |
| 10071 | A | Normalize the cock on TC1  |  | OK |   | Impi Tsela - 435647 | Train |
| 10072 | A | Cab Active TC2   |  | OK |   | Impi Tsela - 435647 | Train |
| 10073 | A | Insert Driver's Master Key and turn it to ON position                            |  | OK |   | Impi Tsela - 435647 | Train |
| 10074 | A | Put the direction selector switch to FORWARD position                            |  | OK |   | Impi Tsela - 435647 | Train |
| 10075 | A | Try to put the Driver's master key in OFF position or remove it from the cab     |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10076 | R | It is not possible to remove or turn the Driver's master key             |  | OK |   | Impi Tsela - 435647 | Train |
| 10077 | A | Put the direction selector switch to NEUTRAL position                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10078 | A | Turn key to non-active cab   |  | OK |   | Impi Tsela - 435647 | Train |
| 10079 | A | Open and close the circuit breaker 20Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey___1 = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey___1 = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2___1 = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1___1 = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 1.0           |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 1.0           |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive___1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive___1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10094 | R | Read Defined Variable [TT]   |  | OK | 1 | Impi Tsela - 435647 | Train |

|       |   |   |  |    |   |                     |       |
|-------|---|---|--|----|---|---------------------|-------|
|       |   | (MPU1)li_cab_tc1othercabinactive__1 = 1.0                               |  |    |   |                     |       |
| 10095 | A | Active cab on TC2   |  | OK |   | Impi Tsela - 435647 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1__1 = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 0.0          |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2__1 = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 0.0          |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10110 | I | Train Preparation with Automatic Start button TC2                       |  | OK |   | Impi Tsela - 435647 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10112 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0   |  | OK | 0 | Impi Tsela - 435647       | Train |
| 10113 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0  |  | OK | 0 | Impi Tsela - 435647       | Train |
| 10114 | A | Press the automatic start button 20S1  |  | OK |   | Impi Tsela - 435647       | Train |
| 10115 | R | Button lamp 20S1 will flash during train preparation and then light steady after preparation process is finish |  | OK |   | Impi Tsela - 435647       | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 1.0   |  | OK | 1 | Impi Tsela - 435647       | Train |
| 10117 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0   |  | OK | 1 | Impi Tsela - 435647       | Train |
| 10118 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0  |  | OK | 2 | Siphehile Mchunu - 491465 | Train |
| 10119 | I | Train De-preparation with Automatic Start button TC2   |  | OK |   | Impi Tsela - 435647       | Train |
| 10120 | A | Press the automatic start button 20S1  |  | OK |   | Impi Tsela - 435647       | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 0.0   |  | OK | 0 | Impi Tsela - 435647       | Train |
| 10122 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0   |  | OK | 0 | Impi Tsela - 435647       | Train |
| 10123 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0  |  | OK | 0 | Impi Tsela - 435647       | Train |
| 10124 | I | Double Cabin and cabin change  |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10125 | I | Each cabin must have its own Driver's Master key   |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0  |  | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0  |  | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10128 | A | Remove active cab on TC2   |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10129 | A | Open and close the circuit breaker 20Q2  |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0  |  | OK | 0 | Siphehile Mchunu - 491465 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                 | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10132 | A | Activate the cab on TC2   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10133 | A | Active cab on TC1   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10134 | R | IOS 064 appears on the Driver's event list to notify the driver a second key has been inserted    | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                 | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                 | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10137 | A | Remove active cab on TC2  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                 | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10139 | R | IOS 064 disappears on the Driver's event list to notify the driver a second key has been inserted | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10140 | A | Remove active cab from TC1  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0                                 | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                 | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10143 | I | Standby mode TC2  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10144 | A | Active cab on TC2   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10145 | A | Press the automatic start button 20S1   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10146 | A | Remove active Cab on TC2  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10147 | A | Manually isolate EB on M3 using the pneumatic cock C2.3/1   | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10148 | A | Press the standby mode button 20S2 and maintain it  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10149 | A | Manually isolate EB on TC2 using the pneumatic cock C1.3/1  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10150 | R | The pantograph lower and both HSCB open, then the train shuts down                                | OK |   | Siphehile Mchunu -<br>491465 | Train |

|       |   |                           |  |    |  |                              |       |
|-------|---|---------------------------|--|----|--|------------------------------|-------|
|       |   | automatically             |  |    |  |                              |       |
| 10151 | A | Normalize the cock on M3  |  | OK |  | Siphehile Mchunu -<br>491465 | Train |
| 10152 | A | Normalize the cock on TC2 |  | OK |  | Siphehile Mchunu -<br>491465 | Train |
| 10153 | I | End of Test               |  | OK |  | Siphehile Mchunu -<br>491465 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10002 | I    | Initial Conditions   |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10003 | I    | Train should be off  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10004 | I    | Main lighting  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                         |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10006 | I    | Main lighting is 100% brightness   |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10007 | R    | Main lighting is (ON) on TC1, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10008 | R    | Main lighting is (ON) on M4, verify the left and right LEDs are ON in each row in 100% brightness. |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10009 | R    | Main lighting is (ON) on M1, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10010 | R    | Main lighting is (ON) on M2, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10011 | R    | Main lighting is (ON) on M3, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10012 | R    | Main lighting is (ON) on TC2, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |

|       |   |   |  |    |  |                          |       |
|-------|---|---|--|----|--|--------------------------|-------|
| 10013 | A | Force [TT] (MPU1)lo_lgt_tc1mainlgtcmd = 0.0                           |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10014 | A | Force [TT] (MPU1)lo_lgt_tc2mainlgtcmd = 0.0                           |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10015 | R | Emergency lighting is (ON) on TC2, brightness has been reduced to low |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10016 | R | Emergency lighting is (ON) on M3, brightness has been reduced to low  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10017 | R | Emergency lighting is (ON) on M2, brightness has been reduced to low  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10018 | R | Emergency lighting is (ON) on M1, brightness has been reduced to low  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10019 | R | Emergency lighting is (ON) on M4, brightness has been reduced to low  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10020 | R | Emergency lighting is (ON) on TC1, brightness has been reduced to low |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10021 | A | Release [TT] (MPU1)lo_lgt_tc1mainlgtcmd                               |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10022 | A | Release [TT] (MPU1)lo_lgt_tc2mainlgtcmd                               |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10023 | I | End of Test   |  | OK |  | Sizwe Sibanyoni - 484647 | Train |

## Section 9 – Pantograph

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### 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            |              | Amanda Ntuli - 526239 | Train   |
| 10002 | I    | Initial Conditions   |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10003 | I    | Main pipe should be 10bar  |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10004 | I    | HSCB is open on M1 and M2 and both pantographs are low                                 |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10005 | I    | Auxiliary Compressor test must be completed in car level prior to performing this test |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10006 | I    | Mechanical pantograph test must be completed prior to performing this test             |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10007 | I    | EARTHING SWITCH T1 is in NORMAL Position on M1   |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10008 | I    | EARTHING SWITCH T1 is in NORMAL Position on M2   |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10009 | I    | HVB1 valve is in NORMAL position on M1   |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10010 | I    | HVB1 valve is in NORMAL position on M2   |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10011 | I    | Start of Test  |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10012 | A    | Active Cab on TC1  |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10013 | I    | Main Tank pressure switch  |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10014 | I    | Make sure the HSCB is open   |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10015 | A    | Empty the main pipe using the cock F2.1/1  |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10016 | A    | Connect a manometer on valve K2.8 in M1 and measure the pressure                       |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10017 | A    | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M1              |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10018 | I    | The sensor of the pantograph reservoir should switch when the pressure reaches         |      | OK            |              | Amanda Ntuli - 526239 | Train   |

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|       |   |   |  |    |   |                       |       |
|-------|---|---|--|----|---|-----------------------|-------|
|       |   | 5.5 bar(+/- 10%)  |  |    |   |                       |       |
| 10019 | A | Normalize the valve K2.5 and wait   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10020 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10021 | A | Connect a manometer on valve K2.8 in M2 and measure the pressure  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10022 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M2 car   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10023 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10024 | A | Normalize the valve K2.5 and wait   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10025 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10026 | A | Normalize the main pipe   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10027 | A | Close the HSCB  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10028 | A | Remove the manometer  |  | OK |   | Amanda Ntuli - 526239 | 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 |   | Amanda Ntuli - 526239 | Train |
| 10030 | A | Close the circuit breaker 21Q1 in M2  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10031 | R | Auxiliary compressor starts working   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr1 = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr2 = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr1 = 1.0  |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr2 = 1.0  |  | OK | 1 | Amanda Ntuli - 526239 | Train |

|       |   |  |  |    |  |                       |       |
|-------|---|--|--|----|--|-----------------------|-------|
| 10036 | A | Remove the manometer nozzle on M2                |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10037 | A | Put HVB1 valve in NORMAL position on M2          |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10038 | A | Put the earthing switch in NORMAL position on M2 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10039 | A | Put HVB1 valve in NORMAL position on M1          |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10040 | A | Put the earthing switch in NORMAL position on M1 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10041 | I | End of Test                                      |  | OK |  | Amanda Ntuli - 526239 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10002 | I    | Initial Conditions   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10003 | A    | Put the train in LV ready (No High Voltage/No Shore Supply) on TC1 as active cab |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10004 | A    | Drain the air on TC1 main pipe using the cock F2.1/1                             |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10005 | R    | The pressure gauge of the main pipe is 0 bar                                     |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10006 | A    | Normalise the cock   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10007 | I    | Start of Test  |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0               |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                 |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10010 | A    | Open circuit breaker 19Q3 on TC1   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 0.0                    |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10012 | A    | Close circuit breaker 19Q3   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                    |      | OK            | 1            | Thandanani Makhanya<br>- 463827 | Train   |
| 10014 | A    | Open circuit breaker 19Q3 on TC2   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 0.0                    |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10016 | A    | Close circuit breaker 19Q3 on TC2  |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                    |      | OK            | 1            | Thandanani Makhanya<br>- 463827 | Train   |

|       |   |  |  |    |   |                                 |       |
|-------|---|--|--|----|---|---------------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10020 | I | Main Compressor operation  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10021 | A | Press the automatic start button 20S1  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10022 | I | Both main air compressors start up   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10029 | I | It is necessary to check main pipe pressure on the pneumatic gauge of TC1 and TC2 individually |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10030 | A | Wait for 10 minutes, then read the variables below   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0                             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |   |    |   |                                 |       |
|-------|---|---|----|---|---------------------------------|-------|
| 10037 | A | Force [TT] NET_TraintimeEvenDay = 1.0   | OK |   | Thandanani Makhanya<br>- 463827 | 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 |   | Thandanani Makhanya<br>- 463827 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler2 = 1.0   | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler1 = 0.0   | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10041 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10042 | A | Force [TT] NET_TraintimeEvenDay = 0.0   | OK |   | Thandanani Makhanya<br>- 463827 | 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 |   | Thandanani Makhanya<br>- 463827 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler1 = 0.0   | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler2 = 1.0   | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10046 | I | Compressor Manual Isolation TC1   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10047 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10048 | A | Put the pneumatic switch 19S1 to ISOLATION position   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 1.0  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr2 = 1.0  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplydelay = 0.0   | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10053 | A | Put the pneumatic switch 19S1 to NORMAL position  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 0.0  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |   |   |    |        |                                 |       |
|-------|---|---|---|----|--------|---------------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 0.0   |   | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0  |   | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0   |   | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10058 | R |   |   | OK | 982.55 | Thandanani Makhanya<br>- 463827 | Train |
| 10059 | I | Compressor stops when it reaches 10 bar   |   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0   |   | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10061 | 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 |        | Thandanani Makhanya<br>- 463827 | Train |
| 10062 | I | Compressor Remote Isolation TC1   |   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0  |   | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0   |   | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0  |   | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10066 | I | It is important to make sure the main pipe pressure is always below 10 bar for the purpose of this test   |   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10067 | A | Release the air in the main pipe until it reaches below 8.5 bar   |   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10068 | A | Open circuit breaker 19Q3   |   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0  |   | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10070 | A | Press the button 19S2 and hold  |   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0  |   | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0   |   | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |

|       |   |  |    |   |                                 |       |
|-------|---|--|----|---|---------------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10074 | A | Release the button 19S2  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10078 | A | Open circuit breaker 19Q2 in the LVB                               | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10080 | A | Press and hold the button 19S2                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10082 | A | Release the button 19S2  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1remotecb = 0.0       | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10084 | A | Close circuit breaker 19Q3   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10085 | A | Press 19S2 and RELEASE in less than a second                       | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10089 | I | Compressor Manual Isolation TC2                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10090 | A | Put the pneumatic switch 19S1 to ISOLATION position                | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 1.0    | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 1.0    | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |  |    |        |                                 |       |
|-------|---|--|----|--------|---------------------------------|-------|
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0 | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10094 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10098 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 0.0    | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 0.0    | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0 | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10104 | I | Compressor stops when it reaches 10 bar                            | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10105 | R |  | OK | 981.76 | Thandanani Makhanya<br>- 463827 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10107 | A | Remove active cab on TC1   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10109 | A | Active cab on TC2  | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   | OK | 0      | Thandanani Makhanya<br>- 463827 | Train |
| 10111 | I | Compressor Remote Isolation TC2                                    | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0  | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |

|       |   |   |    |   |                                 |       |
|-------|---|---|----|---|---------------------------------|-------|
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10114 | I | It is important to make sure the main pipe pressure is always below 10 bar for the purpose of this test | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10115 | A | Release the air in the main pipe until it reaches below 8.5 bar   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                      | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10117 | A | Open circuit breaker 19Q3   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10118 | A | Press and hold the button 19S2  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10121 | A | Release the button 19S2   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10124 | A | Open circuit breaker 19Q2 in LVB  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                                       | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10126 | A | Press and hold the button 19S2  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10128 | A | Release the button 19S2   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10129 | A | Close circuit breaker 19Q3  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2remotecb = 0.0  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10131 | A | Press 19S2 and RELEASE in less than a second  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |   |    |        |                                 |       |
|-------|---|---|----|--------|---------------------------------|-------|
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0  | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0  | OK | 1      | Thandanani Makhanya<br>- 463827 | Train |
| 10135 | I | Air tightness of Main pipe and other<br>pneumatic systems on train  | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10136 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0  | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10137 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0  | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10138 | A | Empty the main pipe pressure using<br>draining cock A5/1 until it reaches below<br>7.5 bar  | OK |        | Thandanani Makhanya<br>- 463827 | 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 |        | Thandanani Makhanya<br>- 463827 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1  | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1  | OK |        | Thandanani Makhanya<br>- 463827 | 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 |        | Thandanani Makhanya<br>- 463827 | Train |
| 10143 | I | After 10 minutes, the air in the main pipe<br>should not be less than 9.3 bar   | OK |        | Thandanani Makhanya<br>- 463827 | Train |
| 10144 | R | Read Undefined Variable [TT]<br>(MPU1)air_bcu1mrpres  | OK | 777.93 | Thandanani Makhanya<br>- 463827 | Train |
| 10145 | I | Air tightness of main reservoirs and<br>associated devices combined with other<br>pneumatic equipment's   | OK |        | Thandanani Makhanya<br>- 463827 | 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 |        | Thandanani Makhanya<br>- 463827 | Train |
| 10147 | A | Reset the air in the main pipe to 10 bar+/-<br>0.2 bar  | OK |        | Thandanani Makhanya<br>- 463827 | 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 |        | Thandanani Makhanya<br>- 463827 | 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 |       | Mlungisi Madela - 529927     | Train |
| 10150 | R |  |   | OK | 10.01 | Thandanani Makhanya - 463827 | Train |
| 10151 | A | NORMALISE the isolation cocks C1.3/1 and C2.3/1  |   | OK |       | Thandanani Makhanya - 463827 | Train |
| 10152 | I | Air tightness of brake cylinders and auxiliary reservoirs  |   | OK |       | Thandanani Makhanya - 463827 | Train |
| 10153 | R | The pressure on the pneumatic indicator is 10 bar +/-0.2 bar   |   | OK |       | Thandanani Makhanya - 463827 | Train |
| 10154 | A | Select driving direction to FORWARD position   |   | OK |       | Thandanani Makhanya - 463827 | Train |
| 10155 | A | Put Master Controller in 100% Service brake position   |   | OK |       | Thandanani Makhanya - 463827 | 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 |       | Thandanani Makhanya - 463827 | Train |
| 10157 | R | SB TC1<br>Result Min/Max : 118<= x <= 158 (kPa)  |   | OK | 134   | Mlungisi Madela - 529927     | Train |
| 10158 | R | SB M4<br>Result Min/Max : 133<= x <= 173 (kPa)   |   | OK | 155   | Mlungisi Madela - 529927     | Train |
| 10159 | R | SB M1<br>Result Min/Max : 137<= x <= 177 (kPa)   |   | OK | 159   | Mlungisi Madela - 529927     | Train |
| 10160 | R | SB M2<br>Result Min/Max : 137<= x <= 176 (kPa)   |   | OK | 148.1 | Mlungisi Madela - 529927     | Train |
| 10161 | R | SB M3<br>Result Min/Max : 133<= x <= 173 (kPa)   |   | OK | 149   | Thandanani Makhanya - 463827 | Train |
| 10162 | R | SB TC2<br>Result Min/Max : 118<= x <= 158 (kPa)  |   | OK | 138   | Thandanani Makhanya - 463827 | 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 |       | Thandanani Makhanya - 463827 | Train |
| 10164 | I | Draining Cock for Intercar   |   | OK |       | Thandanani Makhanya - 463827 | Train |
| 10165 | I | Air in the main pipe should be 10 bar +/- 0.2 bar  |   | OK |       | Thandanani Makhanya - 463827 | Train |
| 10166 | A | This test is to ensure that the draining cocks are fully functional  |   | OK |       | Thandanani Makhanya - 463827 | Train |

|       |   |  |  |    |  |                                 |       |
|-------|---|--|--|----|--|---------------------------------|-------|
| 10167 | A | Isolate all the cocks from M3 to M4  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10168 | A | Drain the air on TC1 car using the cock F2.1/1   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10169 | A | Drain the air on M4 car using the cock F2.1/1  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10170 | A | Drain the air on M1 car using the cock F2.1/1  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10171 | A | Drain the air on M2 car using the cock F2.1/1  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10172 | A | Drain the air on M3 car using the cock F2.1/1  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10173 | A | Drain the air on TC2 car using the cock F2.1/1   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10174 | A | Normalise all the cocks  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10175 | A | Use the tool on the top right corner to add the manometer used for this test (serial number) |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10176 | I | End of Test  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Impi Tsela - 435647 | Train   |
| 10002 | I    | TC1  |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10003 | A    | Open the circuit breaker 15Q4                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10004 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 0.0 |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10005 | A    | Close the circuit breaker 15Q4                                   |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 1.0 |      | OK            | 1            | Impi Tsela - 435647 | Train   |
| 10007 | A    | Open the circuit breaker 13Q1                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 0.0 |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10009 | A    | Close the circuit breaker 13Q1                                   |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 1.0 |      | OK            | 1            | Impi Tsela - 435647 | Train   |
| 10011 | A    | Open the circuit breaker 57Q1                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0 |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10013 | A    | Close the circuit breaker 57Q1                                   |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 1.0 |      | OK            | 1            | Impi Tsela - 435647 | Train   |
| 10015 | A    | Open the circuit breaker 72Q1                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 0.0     |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10017 | A    | Close the circuit breaker 72Q1                                   |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 1.0     |      | OK            | 1            | Impi Tsela - 435647 | Train   |
| 10019 | A    | Open the circuit breaker 40Q4                                    |      | OK            |              | Impi Tsela - 435647 | Train   |

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|       |   |   |    |   |                     |       |
|-------|---|---|----|---|---------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 0.0       | OK | 0 | Impi Tsela - 435647 | Train |
| 10021 | A | Close the circuit breaker 40Q4                                    | OK |   | Impi Tsela - 435647 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 1.0       | OK | 1 | Impi Tsela - 435647 | Train |
| 10023 | A | Open the circuit breaker 50Q7                                     | OK |   | Impi Tsela - 435647 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 0.0       | OK | 0 | Impi Tsela - 435647 | Train |
| 10025 | A | Close the circuit breaker 50Q7                                    | OK |   | Impi Tsela - 435647 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 1.0       | OK | 1 | Impi Tsela - 435647 | Train |
| 10027 | A | Open the circuit breaker 22Q1                                     | OK |   | Impi Tsela - 435647 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 0.0      | OK | 0 | Impi Tsela - 435647 | Train |
| 10029 | A | Close the circuit breaker 22Q1                                    | OK |   | Impi Tsela - 435647 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 1.0      | OK | 1 | Impi Tsela - 435647 | Train |
| 10031 | A | Open the circuit breaker 44Q1                                     | OK |   | Impi Tsela - 435647 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10034 | A | Close the circuit breaker 44Q1                                    | OK |   | Impi Tsela - 435647 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10037 | A | Open the circuit breaker 72Q2                                     | OK |   | Impi Tsela - 435647 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 0.0     | OK | 0 | Impi Tsela - 435647 | Train |
| 10039 | A | Close the circuit breaker 72Q2                                    | OK |   | Impi Tsela - 435647 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 1.0     | OK | 1 | Impi Tsela - 435647 | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10041 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU2)li_DDK_Tc1CbTcms1R2 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10043 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10044 | A | Open the circuit breaker 25Q13                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10046 | A | Close the circuit breaker 25Q13                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r2 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10049 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10052 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10055 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Impi Tsela - 435647 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10058 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10061 | I | M4   |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |   |  |    |   |                     |       |
|-------|---|---|--|----|---|---------------------|-------|
| 10062 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10064 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10066 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10068 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10070 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10072 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10074 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10076 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10078 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10080 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10082 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10085 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10087 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10089 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10091 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpaxis = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10093 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpaxis = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10095 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10098 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10101 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10103 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |  |    |   |                     |       |
|-------|---|--|----|---|---------------------|-------|
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10105 | A | Open the circuit breaker 25Q6                                  | OK |   | Impi Tsela - 435647 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 0.0   | OK | 0 | Impi Tsela - 435647 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 0.0   | OK | 0 | Impi Tsela - 435647 | Train |
| 10108 | A | Close the circuit breaker 25Q6                                 | OK |   | Impi Tsela - 435647 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10111 | A | Open the circuit breaker 25Q10                                 | OK |   | Impi Tsela - 435647 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 0.0   | OK | 0 | Impi Tsela - 435647 | Train |
| 10113 | A | Close the circuit breaker 25Q10                                | OK |   | Impi Tsela - 435647 | Train |
| 10114 | A | Open the circuit breaker 25Q14                                 | OK |   | Impi Tsela - 435647 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 0.0   | OK | 0 | Impi Tsela - 435647 | Train |
| 10116 | A | Close the circuit breaker 25Q14                                | OK |   | Impi Tsela - 435647 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10119 | A | Open the circuit breaker 33Q1                                  | OK |   | Impi Tsela - 435647 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 0.0  | OK | 0 | Impi Tsela - 435647 | Train |
| 10121 | A | Close the circuit breaker 33Q1                                 | OK |   | Impi Tsela - 435647 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 1.0  | OK | 1 | Impi Tsela - 435647 | Train |
| 10123 | A | Open the circuit breaker 55Q2                                  | OK |   | Impi Tsela - 435647 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |

|       |   |   |  |    |   |                     |       |
|-------|---|---|--|----|---|---------------------|-------|
| 10125 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 1.0  |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10127 | I | M1  |  | OK |   | Impi Tsela - 435647 | Train |
| 10128 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10130 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10132 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10134 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10136 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10138 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10140 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10142 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10144 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10146 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |  |    |   |                     |       |
|-------|---|--|----|---|---------------------|-------|
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 1.0       | OK | 1 | Impi Tsela - 435647 | Train |
| 10148 | A | Open the circuit breaker 21Q2                                    | OK |   | Impi Tsela - 435647 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 0.0      | OK | 0 | Impi Tsela - 435647 | Train |
| 10150 | A | Close the circuit breaker 21Q2                                   | OK |   | Impi Tsela - 435647 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 1.0      | OK | 1 | Impi Tsela - 435647 | Train |
| 10152 | A | Open the circuit breaker 57Q2                                    | OK |   | Impi Tsela - 435647 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 0.0        | OK | 0 | Impi Tsela - 435647 | Train |
| 10154 | A | Close the circuit breaker 57Q2                                   | OK |   | Impi Tsela - 435647 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 1.0        | OK | 1 | Impi Tsela - 435647 | Train |
| 10156 | A | Open the circuit breaker 52Q4                                    | OK |   | Impi Tsela - 435647 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 0.0    | OK | 0 | Impi Tsela - 435647 | Train |
| 10158 | A | Close the circuit breaker 52Q4                                   | OK |   | Impi Tsela - 435647 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 1.0    | OK | 1 | Impi Tsela - 435647 | Train |
| 10160 | A | Open the circuit breaker 54Q10                                   | OK |   | Impi Tsela - 435647 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpaxis = 0.0       | OK | 0 | Impi Tsela - 435647 | Train |
| 10162 | A | Close the circuit breaker 54Q10                                  | OK |   | Impi Tsela - 435647 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpaxis = 1.0       | OK | 1 | Impi Tsela - 435647 | Train |
| 10164 | A | Open the circuit breaker 44Q1                                    | OK |   | Impi Tsela - 435647 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10167 | A | Close the circuit breaker 44Q1                                   | OK |   | Impi Tsela - 435647 | Train |

|       |   |  |    |   |                     |       |
|-------|---|--|----|---|---------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10170 | A | Open the circuit breaker 13Q2                                    | OK |   | Impi Tsela - 435647 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 0.0     | OK | 0 | Impi Tsela - 435647 | Train |
| 10172 | A | Close the circuit breaker 13Q2                                   | OK |   | Impi Tsela - 435647 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 1.0     | OK | 1 | Impi Tsela - 435647 | Train |
| 10174 | A | Open the circuit breaker 25Q6                                    | OK |   | Impi Tsela - 435647 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 0.0     | OK | 0 | Impi Tsela - 435647 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 0.0     | OK | 0 | Impi Tsela - 435647 | Train |
| 10177 | A | Close the circuit breaker 25Q6                                   | OK |   | Impi Tsela - 435647 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 1.0     | OK | 1 | Impi Tsela - 435647 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 1.0     | OK | 1 | Impi Tsela - 435647 | Train |
| 10180 | A | Open the circuit breaker 25Q10                                   | OK |   | Impi Tsela - 435647 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 0.0     | OK | 0 | Impi Tsela - 435647 | Train |
| 10182 | A | Close the circuit breaker 25Q10                                  | OK |   | Impi Tsela - 435647 | Train |
| 10183 | A | Open the circuit breaker 25Q14                                   | OK |   | Impi Tsela - 435647 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 0.0     | OK | 0 | Impi Tsela - 435647 | Train |
| 10185 | A | Close the circuit breaker 25Q14                                  | OK |   | Impi Tsela - 435647 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 1.0     | OK | 1 | Impi Tsela - 435647 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 1.0     | OK | 1 | Impi Tsela - 435647 | Train |
| 10188 | A | Open the circuit breaker 33Q1                                    | OK |   | Impi Tsela - 435647 | Train |

|       |   |   |    |   |                     |       |
|-------|---|---|----|---|---------------------|-------|
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 0.0   | OK | 0 | Impi Tsela - 435647 | Train |
| 10190 | A | Close the circuit breaker 33Q1                                  | OK |   | Impi Tsela - 435647 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10192 | A | Open the circuit breaker 55Q2                                   | OK |   | Impi Tsela - 435647 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 0.0  | OK | 0 | Impi Tsela - 435647 | Train |
| 10194 | A | Close the circuit breaker 55Q2                                  | OK |   | Impi Tsela - 435647 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 1.0  | OK | 1 | Impi Tsela - 435647 | Train |
| 10196 | I | M2  | OK |   | Impi Tsela - 435647 | Train |
| 10197 | A | Open the circuit breaker 15Q4                                   | OK |   | Impi Tsela - 435647 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10199 | A | Close the circuit breaker 15Q4                                  | OK |   | Impi Tsela - 435647 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10201 | A | Open the circuit breaker 13Q1                                   | OK |   | Impi Tsela - 435647 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10203 | A | Close the circuit breaker 13Q1                                  | OK |   | Impi Tsela - 435647 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10205 | A | Open the circuit breaker 57Q1                                   | OK |   | Impi Tsela - 435647 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10207 | A | Close the circuit breaker 57Q1                                  | OK |   | Impi Tsela - 435647 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10209 | A | Open the circuit breaker 40Q1                                   | OK |   | Impi Tsela - 435647 | Train |

|       |   |  |    |   |                     |       |
|-------|---|--|----|---|---------------------|-------|
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 0.0   | OK | 0 | Impi Tsela - 435647 | Train |
| 10211 | A | Close the circuit breaker 40Q1                               | OK |   | Impi Tsela - 435647 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10213 | A | Open the circuit breaker 50Q4                                | OK |   | Impi Tsela - 435647 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 0.0   | OK | 0 | Impi Tsela - 435647 | Train |
| 10215 | A | Close the circuit breaker 50Q4                               | OK |   | Impi Tsela - 435647 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 1.0   | OK | 1 | Impi Tsela - 435647 | Train |
| 10217 | A | Open the circuit breaker 21Q2                                | OK |   | Impi Tsela - 435647 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 0.0  | OK | 0 | Impi Tsela - 435647 | Train |
| 10219 | A | Close the circuit breaker 21Q2                               | OK |   | Impi Tsela - 435647 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 1.0  | OK | 1 | Impi Tsela - 435647 | Train |
| 10221 | A | Open the circuit breaker 62Q2                                | OK |   | Impi Tsela - 435647 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10224 | A | Close the circuit breaker 62Q2                               | OK |   | Impi Tsela - 435647 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10227 | A | Open the circuit breaker 57Q2                                | OK |   | Impi Tsela - 435647 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvac = 0.0    | OK | 0 | Impi Tsela - 435647 | Train |
| 10229 | A | Close the circuit breaker 57Q2                               | OK |   | Impi Tsela - 435647 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvac = 1.0    | OK | 1 | Impi Tsela - 435647 | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10231 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10233 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10235 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpaxis = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10237 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpaxis = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10239 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10242 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10245 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10247 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10249 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10252 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10255 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10257 | A | Close the circuit breaker 25Q10                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10258 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10260 | A | Close the circuit breaker 25Q14                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10261 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10262 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10263 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 0.0  |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10265 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 1.0  |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10267 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10269 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10271 | I | M3   |  | OK |   | Impi Tsela - 435647 | Train |
| 10272 | A | Open the circuit breaker 15Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |   |    |   |                     |       |
|-------|---|---|----|---|---------------------|-------|
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10274 | A | Close the circuit breaker 15Q4                                  | OK |   | Impi Tsela - 435647 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10276 | A | Open the circuit breaker 13Q1                                   | OK |   | Impi Tsela - 435647 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10278 | A | Close the circuit breaker 13Q1                                  | OK |   | Impi Tsela - 435647 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10280 | A | Open the circuit breaker 57Q1                                   | OK |   | Impi Tsela - 435647 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0 | OK | 0 | Impi Tsela - 435647 | Train |
| 10282 | A | Close the circuit breaker 57Q1                                  | OK |   | Impi Tsela - 435647 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0 | OK | 1 | Impi Tsela - 435647 | Train |
| 10284 | A | Open the circuit breaker 40Q1                                   | OK |   | Impi Tsela - 435647 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 0.0      | OK | 0 | Impi Tsela - 435647 | Train |
| 10286 | A | Close the circuit breaker 40Q1                                  | OK |   | Impi Tsela - 435647 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 1.0      | OK | 1 | Impi Tsela - 435647 | Train |
| 10288 | A | Open the circuit breaker 50Q4                                   | OK |   | Impi Tsela - 435647 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 0.0      | OK | 0 | Impi Tsela - 435647 | Train |
| 10290 | A | Close the circuit breaker 50Q4                                  | OK |   | Impi Tsela - 435647 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 1.0      | OK | 1 | Impi Tsela - 435647 | Train |
| 10292 | A | Open the circuit breaker 57Q2                                   | OK |   | Impi Tsela - 435647 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvac = 0.0       | OK | 0 | Impi Tsela - 435647 | Train |

|       |   |  |  |    |   |                                    |       |
|-------|---|--|--|----|---|------------------------------------|-------|
| 10294 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Impi Tsela - 435647                | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvac = 1.0        |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10296 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Impi Tsela - 435647                | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 0.0    |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10298 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Impi Tsela - 435647                | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 1.0    |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10300 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Impi Tsela - 435647                | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpaxis = 0.0       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10302 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Impi Tsela - 435647                | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpaxis = 1.0       |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10304 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647                | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10307 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Impi Tsela - 435647                | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10310 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Impi Tsela - 435647                | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10312 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Impi Tsela - 435647                | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 1.0     |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10314 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Impi Tsela - 435647                | Train |

|       |   |  |    |   |                                    |       |
|-------|---|--|----|---|------------------------------------|-------|
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 0.0   | OK | 0 | Impi Tsela - 435647                | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 0.0   | OK | 0 | Impi Tsela - 435647                | Train |
| 10317 | A | Close the circuit breaker 25Q6                                 | OK |   | Impi Tsela - 435647                | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 1.0   | OK | 1 | Impi Tsela - 435647                | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 1.0   | OK | 1 | Impi Tsela - 435647                | Train |
| 10320 | A | Open the circuit breaker 25Q10                                 | OK |   | Impi Tsela - 435647                | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 0.0   | OK | 0 | Impi Tsela - 435647                | Train |
| 10322 | A | Close the circuit breaker 25Q10                                | OK |   | Impi Tsela - 435647                | Train |
| 10323 | A | Open the circuit breaker 25Q14                                 | OK |   | Impi Tsela - 435647                | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 0.0   | OK | 0 | Impi Tsela - 435647                | Train |
| 10325 | A | Close the circuit breaker 25Q14                                | OK |   | Impi Tsela - 435647                | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 1.0   | OK | 1 | Impi Tsela - 435647                | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 1.0   | OK | 1 | Impi Tsela - 435647                | Train |
| 10328 | A | Open the circuit breaker 33Q1                                  | OK |   | Impi Tsela - 435647                | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 0.0  | OK | 0 | Impi Tsela - 435647                | Train |
| 10330 | A | Close the circuit breaker 33Q1                                 | OK |   | Impi Tsela - 435647                | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 1.0  | OK | 1 | Impi Tsela - 435647                | Train |
| 10332 | A | Open the circuit breaker 55Q2                                  | OK |   | Impi Tsela - 435647                | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 0.0 | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10334 | A | Close the circuit breaker 55Q2                                 | OK |   | Impi Tsela - 435647                | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 1.0 | OK | 1 | Impi Tsela - 435647                | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10336 | I | TC2  |  | OK |   | Impi Tsela - 435647 | Train |
| 10337 | A | Open the circuit breaker 15Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10339 | A | Close the circuit breaker 15Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10341 | A | Open the circuit breaker 13Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10343 | A | Close the circuit breaker 13Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10345 | A | Open the circuit breaker 57Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10347 | A | Close the circuit breaker 57Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10349 | A | Open the circuit breaker 72Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10351 | A | Close the circuit breaker 72Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10353 | A | Open the circuit breaker 40Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10355 | A | Close the circuit breaker 40Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10357 | A | Open the circuit breaker 50Q7                                    |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |   |    |   |                                    |       |
|-------|---|---|----|---|------------------------------------|-------|
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 0.0       | OK | 0 | Impi Tsela - 435647                | Train |
| 10359 | A | Close the circuit breaker 50Q7                                    | OK |   | Impi Tsela - 435647                | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 1.0       | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10361 | A | Open the circuit breaker 22Q1                                     | OK |   | Impi Tsela - 435647                | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 0.0      | OK | 0 | Impi Tsela - 435647                | Train |
| 10363 | A | Close the circuit breaker 22Q1                                    | OK |   | Impi Tsela - 435647                | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 1.0      | OK | 1 | Impi Tsela - 435647                | Train |
| 10365 | A | Open the circuit breaker 44Q1.                                    | OK |   | Impi Tsela - 435647                | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 0.0 | OK | 0 | Impi Tsela - 435647                | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 0.0 | OK | 0 | Impi Tsela - 435647                | Train |
| 10368 | A | Close the circuit breaker 44Q1                                    | OK |   | Impi Tsela - 435647                | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 1.0 | OK | 1 | Impi Tsela - 435647                | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 1.0 | OK | 1 | Impi Tsela - 435647                | Train |
| 10371 | A | Open the circuit breaker 72Q2                                     | OK |   | Impi Tsela - 435647                | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 0.0     | OK | 0 | Impi Tsela - 435647                | Train |
| 10373 | A | Close the circuit breaker 72Q2                                    | OK |   | Impi Tsela - 435647                | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 1.0     | OK | 1 | Impi Tsela - 435647                | Train |
| 10375 | A | Open the circuit breaker 25Q11                                    | OK |   | Impi Tsela - 435647                | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtms1r1 = 0.0      | OK | 0 | Impi Tsela - 435647                | Train |
| 10377 | A | Close the circuit breaker 25Q11                                   | OK |   | Impi Tsela - 435647                | Train |
| 10378 | A | Open the circuit breaker 25Q15                                    | OK |   | Impi Tsela - 435647                | Train |

|       |   |  |  |    |   |                                    |       |
|-------|---|--|--|----|---|------------------------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 0.0                      |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10380 | A | Close the circuit breaker 25Q15  |  | OK |   | Impi Tsela - 435647                | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 1.0                      |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 1.0                      |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10383 | A | Open the circuit breaker 25Q10   |  | OK |   | Impi Tsela - 435647                | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 0.0                      |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 0.0                      |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10386 | A | Close the circuit breaker 25Q10  |  | OK |   | Impi Tsela - 435647                | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 1.0                      |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 1.0                      |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10389 | A | Open the circuit breaker 75Q1  |  | OK |   | Impi Tsela - 435647                | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 0.0                 |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 0.0                 |  | OK | 0 | Impi Tsela - 435647                | Train |
| 10392 | A | Close the circuit breaker 75Q1   |  | OK |   | Impi Tsela - 435647                | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 1.0                 |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 1.0                 |  | OK | 1 | Impi Tsela - 435647                | Train |
| 10395 | R | On the Driver's event list, check there are no IOS recorded about circuit breakers |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10396 | I | End of Test  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Kealeboga Mocwagole<br>- 411330 | Train   |
| 10002 | A    | Turn Key 30A1.S1 to Active Cabin Position on TC1  |   | OK            |              | Kealeboga Mocwagole<br>- 411330 | Train   |
| 10003 | I    | Train Prepared in High voltage with active cab on TC1   |   | OK            |              | Kealeboga Mocwagole<br>- 411330 | 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            |              | Kealeboga Mocwagole<br>- 411330 | Train   |
| 10005 | I    | Web portal guide  |   | OK            |              | Kealeboga Mocwagole<br>- 411330 | 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            |              | Kealeboga Mocwagole<br>- 411330 | Train   |
| 10007 | A    |   |  | OK            |              | Kealeboga Mocwagole<br>- 411330 | Train   |
| 10008 | A    |   |  | OK            |              | Kealeboga Mocwagole<br>- 411330 | Train   |
| 10009 | I    | Cabin TC1   |   | OK            |              | Kealeboga Mocwagole<br>- 411330 | Train   |
| 10010 | I    | Use the temperature sensor to verify the temperature of the cabin   |   | OK            |              | Kealeboga Mocwagole<br>- 411330 | 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            |              | Kealeboga Mocwagole<br>- 411330 | 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            |              | Kealeboga Mocwagole<br>- 411330 | Train   |

|       |   |   |  |    |  |                              |       |
|-------|---|---|--|----|--|------------------------------|-------|
|       |   | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10014 | A | Select the switch 57S1 to Low Speed Ventilation   |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10016 | A | Select the switch '57S2' to position 0  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10017 | R | Temperature is set to 18°C  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10018 | A | Select the switch '57S2' to position 1  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10019 | R | Temperature is set to 20°C  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10020 | A | Select the switch '57S2' to position 2  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10021 | R | Temperature is set to 22°C  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10022 | A | Select the switch '57S2' to position 3  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10023 | R | Temperature is set to 24°C  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10024 | A | Select the switch '57S2' to position 4  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10025 | R | Temperature is set to 26°C  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10026 | A | Now select the switch '57S1' to High Ventilation  |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10028 | A | Select the switch '57S2' to position 0  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10029 | R | Temperature is set to 18°C  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10030 | A | Select the switch '57S2' to position 1  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10031 | R | Temperature is set to 20°C  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10032 | A | Select the switch '57S2' to position 2   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10033 | R | Temperature is set to 22°C   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10034 | A | Select the switch '57S2' to position 3   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10035 | R | Temperature is set to 24°C   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10036 | A | Select the switch '57S2' to position 4   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10037 | R | Temperature is set to 26°C   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10038 | I | Cabin Footrest Heater Test on TC1  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0   |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10040 | R | Foot Heater is Off   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10041 | A | Simulate a failure of the heater by opening circuit breaker 57Q2   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10042 | A | Press the button 57S3  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10043 | R | Foot Heater is Off   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 1.0   |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10045 | A | Release '57S3' pushbutton  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10046 | A | Close circuit breaker 57Q2   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10047 | A | Press the button 57S3 to activate the foot heater  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0   |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10049 | R | Foot Heater is ON  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10050 | I | HVAC Saloon TC1  |  | OK |   | Kealeboga Mocwagole - 411330 | 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 |   | Kealeboga Mocwagole - 411330 | Train |
| 10052 | A | Launch the HVAC test for TC1 car on the DDU maintenance screen   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |

|       |   |   |  |    |  |                              |       |
|-------|---|---|--|----|--|------------------------------|-------|
| 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10054 | R | After 9 minutes, TC1 saloon HVAC test has passed.   |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10056 | I | HVAC Cabin TC1  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10057 | A | Launch the HVAC test for the TC1 Cab  |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10059 | R | After 9 minutes, the TC1 cabin HVAC test has passed.  |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10061 | I | HVAC Saloon M4  |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Mvelo Mthembu - 425564       | Train |
| 10063 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M4 car   |  | OK |  | Mvelo Mthembu - 425564       | Train |
| 10064 | A | Launch the HVAC test for M4 car on the DDU maintenance screen   |  | OK |  | Mvelo Mthembu - 425564       | 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 |  | Mvelo Mthembu - 425564       | Train |

|       |   |  |  |    |                              |       |
|-------|---|--|--|----|------------------------------|-------|
|       |   | minutes the HVAC mode should change between Ventilation, Heating and Cooling   |  |    |                              |       |
| 10066 | R | After 9 minutes, the M4 saloon HVAC test has passed.   |  | OK | Mvelo Mthembu - 425564       | 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 | Mvelo Mthembu - 425564       | Train |
| 10068 | I | HVAC Saloon M1   |  | OK | Kealeboga Mocwagole - 411330 | 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 | Kealeboga Mocwagole - 411330 | Train |
| 10070 | A | On the maintenance software go to alarms tab clear all the alarms and events for M1 car  |  | OK | Kealeboga Mocwagole - 411330 | Train |
| 10071 | A | Launch the HVAC test for M1 car on the DDU maintenance screen  |  | OK | Kealeboga Mocwagole - 411330 | 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 | Kealeboga Mocwagole - 411330 | Train |
| 10073 | R | After 9 minutes, the M1 saloon HVAC test has passed.   |  | OK | Kealeboga Mocwagole - 411330 | 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 | Kealeboga Mocwagole - 411330 | Train |
| 10075 | I | HVAC Saloon M2   |  | OK | Kealeboga Mocwagole - 411330 | 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 | Kealeboga Mocwagole - 411330 | Train |

|       |   |  |  |    |  |                              |       |
|-------|---|--|--|----|--|------------------------------|-------|
|       |   | Password: super  |  |    |  |                              |       |
| 10077 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M2 car  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10078 | A | Launch the HVAC test for M2 car on the DDU maintenance screen  |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10080 | R | After 9 minutes, the M2 saloon HVAC test has passed.   |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10082 | I | HVAC Saloon M3   |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10084 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M3 car  |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10085 | A | Launch the HVAC test for M3 car on the DDU maintenance screen  |  | OK |  | Kealeboga Mocwagole - 411330 | 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 |  | Kealeboga Mocwagole - 411330 | Train |
| 10087 | R | After 9 minutes, the M3 saloon HVAC test has passed.   |  | OK |  | Kealeboga Mocwagole - 411330 | Train |
| 10088 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded   |  | OK |  | Kealeboga Mocwagole - 411330 | Train |

|       |   |   |  |    |  |  |
|-------|---|---|--|----|--|--|
|       |   | during testing to help with fault finding.  |  |    |  |  |
| 10089 | I | HVAC Saloon TC2   |  | OK |  | Kealeboga Mocwagole<br>- 411330<br>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 |  | Kealeboga Mocwagole<br>- 411330<br>Train |
| 10091 | A | On the maintenance software go to alarms tab and clear all the alarms and events for TC2 car  |  | OK |  | Kealeboga Mocwagole<br>- 411330<br>Train |
| 10092 | A | Launch the HVAC test for TC2 car on the DDU maintenance screen  |  | OK |  | Kealeboga Mocwagole<br>- 411330<br>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 |  | Kealeboga Mocwagole<br>- 411330<br>Train |
| 10094 | R | After 9 minutes, the TC2 saloon HVAC test has passed.   |  | OK |  | Kealeboga Mocwagole<br>- 411330<br>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 |  | Kealeboga Mocwagole<br>- 411330<br>Train |
| 10096 | I | HVAC Cabin TC2  |  | OK |  | Kealeboga Mocwagole<br>- 411330<br>Train |
| 10097 | A | Launch the HVAC test for the TC2 Cab  |  | OK |  | Kealeboga Mocwagole<br>- 411330<br>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 |  | Kealeboga Mocwagole<br>- 411330<br>Train |
| 10099 | R | After 9 minutes, the TC2 saloon HVAC test has passed.   |  | OK |  | Kealeboga Mocwagole<br>- 411330<br>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 |  | Kealeboga Mocwagole<br>- 411330<br>Train |

|       |   |  |   |    |  |                                 |       |
|-------|---|--|---|----|--|---------------------------------|-------|
| 10101 | A | Turn Key 30A1.S1 to Non-Active Cabin Position on TC1   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10102 | I | Cabin TC2  |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10103 | A | Turn Key 30A1.S1 to Active Cabin Position on TC2   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | 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 |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10105 | I | Check the Steps below and compare with Maintenance software  |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10106 | A | Select the switch 57S1 to Low Speed Ventilation  |   | OK |  | Kealeboga Mocwagole<br>- 411330 | 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 |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10108 | A | Select the switch '57S2' to position 0   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10109 | R | Temperature is set to 18°C   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10110 | A | Select the switch '57S2' to position 1   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10111 | R | Temperature is set to 20°C   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10112 | A | Select the switch '57S2' to position 2   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10113 | R | Temperature is set to 22°C   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10114 | A | Select the switch '57S2' to position 3   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10115 | R | Temperature is set to 24°C   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10116 | A | Select the switch '57S2' to position 4   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10117 | R | Temperature is set to 26°C   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10118 | A | Now select the switch '57S1' to High Ventilation   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | 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 |  | Kealeboga Mocwagole<br>- 411330 | Train |

|       |   |   |  |    |   |                              |       |
|-------|---|---|--|----|---|------------------------------|-------|
|       |   | showing as INACTIVE   |  |    |   |                              |       |
| 10120 | A | Select the switch '57S2' to position 0                                  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10121 | R | Temperature is set to 18°C  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10122 | A | Select the switch '57S2' to position 1                                  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10123 | R | Temperature is set to 20°C  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10124 | A | Select the switch '57S2' to position 2                                  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10125 | R | Temperature is set to 22°C  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10126 | A | Select the switch '57S2' to position 3                                  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10127 | R | Temperature is set to 24°C  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10128 | A | Select the switch '57S2' to position 4                                  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10129 | R | Temperature is set to 26°C  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10130 | I | Cabin Footrest Heater Test on TC2                                       |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault___1 = 0.0 |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10132 | R | Foot Heater is switch Off   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10133 | A | Simulate a failure of the heater by opening circuit breaker 57Q2        |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10134 | A | Command '57S3' pushbutton   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault___1 = 1.0 |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10136 | R | Foot Heater is switch Off   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10137 | A | Release '57S3' pushbutton   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10138 | A | Close 57Q2  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10139 | A | Command '57S3' pushbutton   |  | OK |   | Kealeboga Mocwagole - 411330 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault___1 = 0.0 |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10141 | R | Foot Heater is switch ON  |  | OK |   | Kealeboga Mocwagole - 411330 | Train |

|       |   |  |   |    |  |                                 |       |
|-------|---|--|---|----|--|---------------------------------|-------|
| 10142 | I | Emergency Ventilation Mode   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10143 | R | All HVACs are working in NORMAL condition  |    | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10144 | A | Switch off the catenary voltage 3kV  |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10145 | R | Both Auxiliary Converter stop to work  |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10146 | R | 400 V AC is not present on train   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10147 | R | No high voltage power is available on HVAC unit to operate Ventilation and Cooling or Heating.   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10148 | R | All HVAC units and Cab HVAC units stop   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10149 | R | After about 45 seconds without 400V, Auxiliary Converter will generate 400V from Train Batteries with an inverter.   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10150 | R | After this time about (45s) All HVAC units will operate in "Emergency Ventilation"   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10151 | A | Switch on the 3kV on the catenary  |   | OK |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10152 | R | Now, 400V AC is available by Auxiliary Converter   |   | OK |  | Kealeboga Mocwagole<br>- 411330 | 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 |  | Kealeboga Mocwagole<br>- 411330 | Train |
| 10154 | I | End of Test  |   | OK |  | Mvelo Mthembu -<br>425564       | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10002 | I    | Initial Conditions  |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10003 | I    | Train should be prepared with High voltage                      |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10004 | I    | Deadman override switch 60S1 must be in OVERRIDE position       |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10005 | I    | Driving command TC1 side  |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10006 | I    | Direction Selector Switch TC1                                   |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10007 | A    | Put the Direction selector switch 30A1.S2 in NEUTRAL position   |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0           |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 0.0  |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0 |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |

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|       |   |   |  |    |   |                                   |       |
|-------|---|---|--|----|---|-----------------------------------|-------|
| 10018 | A | Put the Direction selector switch 30A1.S2 in FORWARD position   |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0  |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0 |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10029 | A | Put the Direction selector switch 30A1.S2 in REVERSE position   |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |   |                                   |       |
|-------|---|--|----|---|-----------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0                        | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0               | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 1.0              | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10040 | I | Reduced Power Test TC1   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10041 | I | Button Lamp 30S2 is OFF  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10042 | I | Driving mode switch in SPEED CONTROL mode                                    | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10045 | A | Press button 30S2 to activate the reduced power mode and maintain it         | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10046 | R | Button Lamp 30S2 is ON   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0            | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10049 | A | Release the button 30S2 and press it again to de-activate reduced power mode | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10050 | R | Button Lamp 30S2 is OFF  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10053 | A | Put the driving mode switch to EFFORT mode                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10054 | A | Press button 30S2 to activate the reduced power mode and maintain it         | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |   |                                   |       |
|-------|---|--|----|---|-----------------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0            | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10057 | A | Release the button 30S2 and press it again to de-activate reduced power mode | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10060 | I | It not possible to activate reduced power in depot or coupling mode          | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10061 | A | Put the driving mode switch to DEPOT mode                                    | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10062 | A | Press button 30S2 to activate the reduced power mode and maintain it         | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10065 | A | Release the button 30S2  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10066 | A | Put the driving mode switch to COUPLING mode                                 | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10067 | A | Press button 30S2 to activate the reduced power mode and maintain it         | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10070 | A | Release the button 30S2  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10071 | I | Master Controller / No Brake   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10072 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position            | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10073 | I | The Master controller of Traction/Brake should be on OFF position            | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |    |      |                                   |       |
|-------|---|---|----|------|-----------------------------------|-------|
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10075 | I | The Traction Interlock Override Switch<br>31S1 should be in NORMAL position | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10076 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                        | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10077 | R | LED 31H1 is OFF on the alarm module   | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10078 | R | LED 44H4 is "ON" on the alarm module  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                       | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                       | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                       | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                       | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                       | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                       | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10091 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369    | OK | 6000 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10092 | R | Read Min/Max [TT]   | OK | 5968 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |   |                                   |       |  |
|-------|---|--|----|---|-----------------------------------|-------|--|
|       |   | (MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369                        |    |   |                                   |       |  |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0            | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0            | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0              | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0              | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0              | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0              | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcmemergencybraker1 =<br>0.0 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcmemergencybraker2 =<br>0.0 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10101 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position           | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                       | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10103 | R | LED 44H4 is OFF on the alarm module  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10104 | R | LED 31H1 is "ON" on the alarm module                                       | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10105 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10106 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10107 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |  |

|       |   |  |  |    |      |                                   |       |
|-------|---|--|--|----|------|-----------------------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0   |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0   |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0  |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0  |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0  |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0  |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10117 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369                           |  | OK | 6000 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10118 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369                           |  | OK | 5968 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractionr1 = 0.0                                   |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractionr2 = 0.0                                   |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0                                      |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0                                      |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0                                      |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0                                      |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcmemergencybraker1 =<br>0.0                         |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcmemergencybraker2 =<br>0.0                         |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10127 | I | For safety purposes ENSURE that NO one<br>is working NEAR, OUTSIDE or on the<br>DOORS of the Train |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |  |    |   |                                   |       |
|-------|---|---|--|----|---|-----------------------------------|-------|
| 10128 | A | Press Automatic Start Button to Drop the Pantographs                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10129 | A | Timer 15.0 S  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10134 | A | Put the Master controller of Traction/Brake in 100% TRACTION position |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                  |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                  |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |       |                                   |       |
|-------|---|--|----|-------|-----------------------------------|-------|
| 10146 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10147 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 | OK | 30864 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10148 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 | OK | 30928 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractionr1 = 1.0           | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractionr2 = 1.0           | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0              | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0              | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10157 | A | Put the Master controller of<br>Traction/Brake in OFF position             | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |      |                                   |       |
|-------|---|--|----|------|-----------------------------------|-------|
| 10163 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                       | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                       | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                      | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                      | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                      | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10170 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369   | OK | 6000 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10171 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369   | OK | 5984 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0            | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0            | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcoastr1 = 0.0               | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcoastr2 = 0.0               | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0              | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0              | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcmemergencybraker1 =<br>0.0 | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10179 | A | Put the direction selector switch in<br>REVERSE position                   | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |  |    |       |                                   |       |
|-------|---|--|--|----|-------|-----------------------------------|-------|
| 10180 | A | Put the Master controller of Traction/Brake in 100% BRAKE position         |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10193 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30864 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10194 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30928 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0            |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0            |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |    |   |                                   |       |
|-------|---|---|----|---|-----------------------------------|-------|
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0                 | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0                 | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0                 | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10203 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |       |                                   |       |
|-------|---|--|----|-------|-----------------------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10216 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 | OK | 30864 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10217 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 | OK | 30928 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractionr1 = 0.0           | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractionr2 = 0.0           | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>1.0  | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>1.0  | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10226 | I | Driving command TC2 side   | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10227 | I | Direction Selector Switch TC2  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10228 | A | Switch active cab to TC2   | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10229 | A | Press 21S1 to raise the Pantographs  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10230 | A | Press 22S11 to close the HSCB  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10231 | A | Put the Direction selector switch 30A1.S2<br>in NEUTRAL position           | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0                      | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |  |    |   |                                   |       |
|-------|---|--|--|----|---|-----------------------------------|-------|
| 10233 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10240 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0            |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10249 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |    |   |                                   |       |
|-------|---|---|----|---|-----------------------------------|-------|
| 10251 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0                           | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0                           | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0                           | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                           | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0                           | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0                           | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0                           | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10258 | A | Put Master Controller in OFF position   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10259 | I | Button Lamp 30S2 is OFF   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10260 | I | Reduced Power Test TC2  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10261 | A | Put the driving mode switch in SPEED<br>CONTROL mode                            | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10262 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0               | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10265 | R | Button Lamp 30S2 is ON  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10266 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10267 | R | Button Lamp 30S2 is OFF   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 0.0              | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10270 | A | Put the driving mode switch to EFFORT<br>mode                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |  |    |   |                                   |       |
|-------|---|--|--|----|---|-----------------------------------|-------|
| 10271 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0            |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10274 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10276 | I | It not possible to activate reduced power in depot or coupling mode          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10277 | A | Put the driving mode switch to DEPOT mode                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10278 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10281 | A | Release the button 30S2  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10282 | A | Put the driving mode switch to COUPLING mode                                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10283 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10286 | A | Release the button 30S2  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10287 | I | Master Controller/ No Brake  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10288 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10289 | I | The Master controller of Traction/Brake should be on OFF position            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |  |    |      |                                   |       |
|-------|---|---|--|----|------|-----------------------------------|-------|
| 10290 | I | Emergency Brake must be applied   |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10291 | I | All doors should be closed  |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10292 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position  |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10293 | R | LED 31H1 is OFF on the alarm module                                       |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10294 | R | LED 44H4 is "ON" on the alarm module                                      |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                      |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                      |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     |  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10307 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpoositionch1 :<br>5479<= x <= 6369 |  | OK | 5984 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10308 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpoositionch2 :<br>5479<= x <= 6369 |  | OK | 6032 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |   |                                   |       |
|-------|---|--|----|---|-----------------------------------|-------|
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctrackr1 = 0.0          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctrackr2 = 0.0          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10317 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position       | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10318 | I | No emergency brake is applied  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10319 | R | LED 44H4 is OFF on the alarm module                                    | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10320 | R | LED 31H1 is "ON" on the alarm module                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10321 | R | Relay 31K1 and 31K2 are energized                                      | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10325 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                 | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |      |                                   |       |
|-------|---|--|----|------|-----------------------------------|-------|
| 10328 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0   | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0   | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0  | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10334 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369                           | OK | 5984 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10335 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369                           | OK | 6032 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctrackr1 = 0.0                                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctrackr2 = 0.0                                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0                                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0                                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0                                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0                                      | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcmemergencybraker1 =<br>0.0                         | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcmemergencybraker2 =<br>0.0                         | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10344 | I | For safety purposes ENSURE that NO one<br>is working NEAR, OUTSIDE or on the<br>DOORS of the Train | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |  |    |   |                                   |       |
|-------|---|---|--|----|---|-----------------------------------|-------|
| 10345 | A | Press Automatic Start Button to Drop the Pantographs                        |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10346 | A | Timer 15.0 S  |  | OK |   | Gcobani Baliso -<br>480570        | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0             |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0             |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10349 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0             |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0             |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10351 | A | Put the Master controller of<br>Traction/Brake in 100% TRACTION<br>position |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                       |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                       |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                      |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                      |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                      |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                      |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                       |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10361 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                       |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                       |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |       |                                   |       |
|-------|---|--|----|-------|-----------------------------------|-------|
| 10363 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10364 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 | OK | 30896 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10365 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 | OK | 31024 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractionr1 = 1.0           | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractionr2 = 1.0           | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcoastr1 = 1.0               | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcoastr2 = 1.0               | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0              | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0              | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcmemergencybraker1 =<br>0.0 | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcmemergencybraker2 =<br>0.0 | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10374 | A | Put the Master controller of<br>Traction/Brake in OFF position             | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |    |      |                                   |       |
|-------|---|---|----|------|-----------------------------------|-------|
| 10380 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                      | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                      | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     | OK | 1    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10387 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369  | OK | 5984 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10388 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369  | OK | 6032 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctrackr1 = 0.0             | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctrackr2 = 0.0             | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0             | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0             | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0             | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0             | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0 | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0 | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |  |    |       |                                   |       |
|-------|---|--|--|----|-------|-----------------------------------|-------|
| 10397 | A | Put the Master controller of Traction/Brake in 100% BRAKE position         |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10409 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10410 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30912 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10411 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 31024 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0            |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0            |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mccoastr1 = 1.0              |  | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |   |    |   |                                   |       |
|-------|---|---|----|---|-----------------------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0                 | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0                 | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0                 | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10420 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10428 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                          | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10429 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10430 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10431 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |  |    |       |                                   |       |
|-------|---|--|----|-------|-----------------------------------|-------|
| 10432 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10433 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpoisionch1 :<br>29183<= x <= 31102  | OK | 30896 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10434 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpoisionch2 :<br>29183<= x <= 31102  | OK | 31040 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractioanr1 = 0.0          | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractioanr2 = 0.0          | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10438 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0              | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcmemergencybraker1 =<br>1.0 | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcmemergencybraker2 =<br>1.0 | OK | 1     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10443 | A | Put the Master controller of<br>Traction/Brake in OFF position             | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10444 | A | Put the direction switch to NEUTRAL<br>position                            | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10445 | A | Close HSCB using button 22S11  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10446 | I | End of Test  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Carol Gumedé - 425280 | Train   |
| 10002 | I    | Initial Conditions   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10003 | I    | Train must be properly scotched with sufficient scotch blocked to prevent it from moving |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10004 | I    | Automatic parking brake application  |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10005 | I    | Train in LV ready with active cab on TC1   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10006 | A    | Release parking brake using the switch 45S1  |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10007 | R    | Verify on the DDU that all cars have parking brake released                              |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10008 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10009 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10010 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10011 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10012 | A    | Drain the air from the main pipe until it reaches 0bar                                   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10013 | R    | Main pipe pressure is 0bar on the Pneumatic indicator                                    |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10014 | R    | Verify on the DDU that all cars have parking brake applied                               |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10015 | R    | Lamp 45H2 is "ON" on the alarm module  |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                         |      | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                         |      | OK            | 0            | Carol Gumedé - 425280 | Train   |

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|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0 | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0 | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_RELEASE = 0.0    | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0         | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |   |    |   |                          |       |
|-------|---|---|----|---|--------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                      | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                      | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10038 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10039 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10040 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10041 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10042 | A | Press the automatic start button 20S1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10045 | R | After 10 minutes, the air in the main pipe<br>is 10bar +/-0.2bar                              | OK |   | Carol Gumedé -<br>425280 | Train |
| 10046 | A | Turn the switch 45S1 to release parking<br>brake  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10047 | R | Lamp 45H2 is OFF on the alarm module  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10048 | I | Parking brake is released in all cars   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10049 | R | Lamp 45H2 is OFF on the alarm module  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10050 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure | OK |   | Carol Gumedé -<br>425280 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                               | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                               | OK | 1 | Carol Gumedé -<br>425280 | Train |

|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0 | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0 | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsoDC = 0.0    | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0         | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0         | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0         | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0         | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10073 | I | Remote parking brake application TC1                             | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |   |  |    |      |                           |       |
|-------|---|---|--|----|------|---------------------------|-------|
| 10074 | A | Turn the switch 45S1 to parking brake release   |  | OK |      | Mphato Mphahlele - 480716 | Train |
| 10075 | R | Lamp 45H2 is OFF on the alarm module  |  | OK |      | Mphato Mphahlele - 480716 | 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 | 5.97 | Mphato Mphahlele - 480716 | 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 | 5.94 | Mphato Mphahlele - 480716 | 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 | 5.71 | Mphato Mphahlele - 480716 | 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 | 5.83 | Mphato Mphahlele - 480716 | 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 | 5.96 | Mphato Mphahlele - 480716 | 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 | 6.06 | Mphato Mphahlele - 480716 | Train |
| 10082 | A | Turn the switch 45S1 to apply parking brake   |  | OK |      | Mphato Mphahlele - 480716 | Train |
| 10083 | R | Lamp 45H2 is ON on the alarm module   |  | OK |      | Mphato Mphahlele - 480716 | 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 | 1.43 | Mphato Mphahlele - 480716 | 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 | 0.69 | Mphato Mphahlele - 480716 | 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 | 1.88 | Mphato Mphahlele - 480716 | 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 | 1.9  | Mphato Mphahlele - 480716 | 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 | 2.02 | Mphato Mphahlele - 480716 | Train |
| 10089 | R | Measure the pressure of the test point C1.11 on TC2, test point must below 4.8                                      |  | OK | 1.64 | Mphato Mphahlele - 480716 | Train |

|       |   | bar  |    |   |                          |       |  |
|-------|---|--|----|---|--------------------------|-------|--|
|       |   | Result Max : x <= 5 (Bar)  |    |   |                          |       |  |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0 | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0 | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0 | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0 | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |  |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |  |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |  |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |  |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsoldc = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10106 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          | OK | 0 | Carol Gumedé -<br>425280 | Train |  |
| 10107 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          | OK | 0 | Carol Gumedé -<br>425280 | Train |  |

|       |   |   |    |   |                          |       |
|-------|---|---|----|---|--------------------------|-------|
| 10108 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10112 | I | Parking brake manual isolation  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10113 | I | TC1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10114 | A | Put the switch C1.3.2 in ISOLATION<br>position on TC1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10119 | A | Put the switch C1.3.2 in NORMAL<br>position on TC1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10125 | I | M4  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10126 | A | Put the switch C2.3.2 for in ISOLATION<br>position  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
| 10127 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_RELEASE = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m4parkbrakeisol = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10131 | A | Put the switch C2.3.2 in NORMAL<br>position on M4  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_RELEASE = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10133 | R | Verify on the DDU that parking brake is<br>still released  | OK |   | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m4parkbrakeisol = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10138 | I | M1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10139 | A | Put the switch C2.3.2 for in ISOLATION<br>position   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10143 | A | Put the switch C2.3.2 in NORMAL<br>position on M1  | OK |   | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |

|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10148 | I | M2   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10149 | A | Put the switch C2.3.2 in ISOLATION<br>position on M2   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10153 | A | Put the cock C2.3.2 for in NORMAL<br>position on M2  | OK |   | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0   | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10158 | I | M3   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10159 | A | Put the switch C2.3.2 in ISOLATION<br>position on M3   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |

|       |   |   |    |   |                       |       |
|-------|---|---|----|---|-----------------------|-------|
| 10163 | A | Put the cock C2.3.2 for in NORMAL position on M3  | OK |   | Carol Gumedé - 425280 | 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 |   | Carol Gumedé - 425280 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 0.0  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10167 | I | TC2   | OK |   | Carol Gumedé - 425280 | Train |
| 10168 | A | Put the switch C1.3.2 in ISOLATION position on TC2  | OK |   | Carol Gumedé - 425280 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 1.0  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc2parkbrakeisol = 1.0   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 1.0   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10173 | A | Put the switch C1.3.2 in NORMAL position on TC2   | OK |   | Carol Gumedé - 425280 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_RELEASE = 0.0  | OK | 0 | Carol Gumedé - 425280 | 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 |   | Carol Gumedé - 425280 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc2parkbrakeisol = 0.0   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10178 | I | Remote parking brake application TC2  | OK |   | Carol Gumedé - 425280 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10180 | A | Switch active cab to TC2  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |  |  |    |       |                           |       |
|-------|---|--|--|----|-------|---------------------------|-------|
| 10181 | A | Turn the switch 45S1 to apply parking brake  |  | OK |       | Carol Gumede - 425280     | Train |
| 10182 | R | Lamp 45H2 is ON on the alarm module  |  | OK |       | Mphato Mphahlele - 480716 | 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 | 1.431 | Mphato Mphahlele - 480716 | 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 | 0.69  | Mphato Mphahlele - 480716 | 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 | 1.88  | Mphato Mphahlele - 480716 | 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 | 1.9   | Mphato Mphahlele - 480716 | 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 | 2.02  | Mphato Mphahlele - 480716 | 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 | 1.64  | Mphato Mphahlele - 480716 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0   |  | OK | 0     | Carol Gumede - 425280     | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0   |  | OK | 0     | Carol Gumede - 425280     | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0  |  | OK | 0     | Carol Gumede - 425280     | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0  |  | OK | 0     | Carol Gumede - 425280     | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0   |  | OK | 0     | Carol Gumede - 425280     | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0   |  | OK | 0     | Carol Gumede - 425280     | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0   |  | OK | 1     | Carol Gumede - 425280     | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0   |  | OK | 1     | Carol Gumede - 425280     | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0   |  | OK | 1     | Carol Gumede - 425280     | Train |

|       |   |   |    |   |                          |       |
|-------|---|---|----|---|--------------------------|-------|
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0                                | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsOldC = 0.0                                | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                               | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                               | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0                                | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0                               | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0                               | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10205 | A | Turn the switch 45S1 to release parking<br>brake  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10206 | R | Lamp 45H2 is OFF on the alarm module  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10207 | I | Parking brake is released in all cars   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10208 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure | OK |   | Carol Gumedé -<br>425280 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                               | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                               | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0                              | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0                                | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0                                | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |   |  |    |   |                          |       |
|-------|---|---|--|----|---|--------------------------|-------|
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10225 | I | End of Test   |  | OK |   | Carol Gumedé -<br>425280 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## Section 15 – Service Brake

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### 15.1 Instructions list

### 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            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions  |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | Emergency brake button 44S1 is released in both TC1 and TC2   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | Pressure on the main pipe should be higher than 7 bar   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | The ERTMS switch 62S1 is in ISOLATION position in both TC1 and TC2  |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | I    | The Deadman switch 60S1 is in OVERRIDE position in both TC1 and TC2   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | I    | Driving mode should be selected as COUPLE/WASH in both TC1 and TC2  |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | I    | Train has sufficient scotch blocks to prevent it from moving  |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | I    | Ensure that the propulsion system is inhibited to prevent movement when the master controller is in TRACTION position |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | I    | Start of Test   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10011 | I    | Brake application / release   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | A    | Activate the cab on TC1   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10013 | I    | To begin test, the EPC life signal must be live   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | R    | Read Defined Variable [TT] (BCU1)LI_REGULATOR_STAT = 1.0  |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10015 | R    | Read Defined Variable [TT] (BCU2)LI_REGULATOR_STAT = 1.0  |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10016 | R    | Read Defined Variable [TT] (TBCU1)LI_REGULATOR_STAT = 1.0   |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |

|       |   |  |    |      |                              |       |
|-------|---|--|----|------|------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REGULATOR_STAT = 1.0   | OK | 1    | Mphato Mphahlele -<br>480716 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REGULATOR_STAT = 1.0   | OK | 1    | Mphato Mphahlele -<br>480716 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REGULATOR_STAT = 1.0   | OK | 1    | Mphato Mphahlele -<br>480716 | Train |
| 10020 | A | Put the direction selector switch in<br>FORWARD position   | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10021 | R | Emergency brake is released  | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10022 | R | LED 40H1 is OFF on the alarm module  | OK |      | Mphato Mphahlele -<br>480716 | 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 |      | Mphato Mphahlele -<br>480716 | 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 |      | Mphato Mphahlele -<br>480716 | 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 |      | Mphato Mphahlele -<br>480716 | Train |
| 10026 | R | SBTP TC1<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)  | OK | 1.36 | Mphato Mphahlele -<br>480716 | Train |
| 10027 | R | Brake discs apply pressure on car TC1  | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10028 | R | SBTP M4<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)   | OK | 1.32 | Mphato Mphahlele -<br>480716 | Train |
| 10029 | R | Brake discs apply pressure on car M4   | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10030 | R | SBTP M1<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)   | OK | 1.33 | Mphato Mphahlele -<br>480716 | Train |
| 10031 | R | Brake discs apply pressure on car M1   | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10032 | R | SBTP M2<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)   | OK | 1.32 | Mphato Mphahlele -<br>480716 | Train |
| 10033 | R | Brake discs apply pressure on car M2   | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10034 | R | SBTP M3<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)   | OK | 1.31 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |  |    |        |                           |       |
|-------|---|--|--|----|--------|---------------------------|-------|
| 10035 | R | Brake discs apply pressure on car M3   |  | OK |        | Mphato Mphahlele - 480716 | Train |
| 10036 | R | SBTP TC2<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)  |  | OK | 1.27   | Mphato Mphahlele - 480716 | Train |
| 10037 | R | Brake discs apply pressure on car TC2  |  | OK |        | Mphato Mphahlele - 480716 | 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 |        | Mphato Mphahlele - 480716 | Train |
| 10039 | R | Read Min/Max [TT]<br>(MPU1)bcu1_bcuBpipepress : 127<= x <= 167   |  | OK | 137.19 | Mphato Mphahlele - 480716 | Train |
| 10040 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuBpipePress : 127<= x <= 167   |  | OK | 137.76 | Mphato Mphahlele - 480716 | Train |
| 10041 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcuBpipepress : 129<= x <= 169  |  | OK | 138.6  | Mphato Mphahlele - 480716 | Train |
| 10042 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcuBpipepress : 129<= x <= 169  |  | OK | 138.1  | Mphato Mphahlele - 480716 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcuBpipepress : 129<= x <= 169  |  | OK | 134.8  | Mphato Mphahlele - 480716 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu4_bcuBpipepress : 129<= x <= 169  |  | OK | 134.64 | Mphato Mphahlele - 480716 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0  |  | OK | 0      | Mphato Mphahlele - 480716 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0  |  | OK | 0      | Mphato Mphahlele - 480716 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  |  | OK | 0      | Mphato Mphahlele - 480716 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  |  | OK | 0      | Mphato Mphahlele - 480716 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0   |  | OK | 0      | Mphato Mphahlele - 480716 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   |  | OK | 0      | Mphato Mphahlele - 480716 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0      | Mphato Mphahlele - 480716 | Train |

|       |   |  |    |      |                              |       |
|-------|---|--|----|------|------------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0   | OK | 0    | Mphato Mphahlele -<br>480716 | Train |
| 10053 | R | Check the pressure on the brake pressure<br>gauge on TC1<br>Read Undefined Value : x ()  | OK | 998  | Mphato Mphahlele -<br>480716 | Train |
| 10054 | R | Check the pressure on the brake pressure<br>gauge on TC2<br>Read Undefined Value : x ()  | OK | 1002 | Mphato Mphahlele -<br>480716 | 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 |      | Mphato Mphahlele -<br>480716 | 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 |      | Mphato Mphahlele -<br>480716 | Train |
| 10057 | I | There must not have sudden release of<br>pressure while the master controller is<br>slowly moved to OFF position.  | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10058 | R | Pressure on BCTP (Car TC) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()  | OK | 0.73 | Mphato Mphahlele -<br>480716 | Train |
| 10059 | R | Pressure on SBTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()  | OK | 0.71 | Mphato Mphahlele -<br>480716 | Train |
| 10060 | R | Pressure on BCTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()  | OK | 0.72 | Mphato Mphahlele -<br>480716 | Train |
| 10061 | R | Pressure on SBTP all TC cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()  | OK | 0.67 | Mphato Mphahlele -<br>480716 | 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 |      | Mphato Mphahlele -<br>480716 | Train |
| 10063 | R | Brake discs do not apply pressure on car<br>TC1  | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10064 | R | Brake discs do not apply pressure on car<br>M4   | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10065 | R | Brake discs do not apply pressure on car<br>M1   | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10066 | R | Brake discs do not apply pressure on car<br>M2   | OK |      | Mphato Mphahlele -<br>480716 | Train |
| 10067 | R | Brake discs do not apply pressure on car<br>M3   | OK |      | Mphato Mphahlele -<br>480716 | Train |

|       |   |   |  |    |   |                           |       |
|-------|---|---|--|----|---|---------------------------|-------|
| 10068 | R | Brake discs do not apply pressure on car TC2                |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10069 | I | Holding Brake   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10070 | A | Put the master controller on 100% BRAKE position            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10083 | A | Put the master controller on OFF position                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0 | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10096 | A | Put the driving mode switch 30S1 to<br>EFFORT position      | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10097 | A | Put the master controller on 100% BRAKE<br>position         | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10110 | A | Position the master controller on OFF<br>position           | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |   |  |    |   |                           |       |
|-------|---|---|--|----|---|---------------------------|-------|
| 10123 | A | Position the driving mode switch 30S1 to DEPOT position     |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10124 | A | Position the master controller on 100% BRAKE position       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10137 | A | Position the master controller on OFF position              |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0         | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0         | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0         | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0         | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10150 | A | Return the driving mode switch 30S1 to<br>COUPLE / WASH position  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10151 | A | Position the master controller in 100%<br>BRAKE position          | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10152 | I | Brake isolation through the isolation cock                        | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10153 | I | TC1 service brake manual isolation                                | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10154 | A | Close the isolation cock C1.3.1                                   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10155 | R | Lamp 40H2 is ON on the alarm mode for<br>EB reduced               | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10157 | A | Put the manometer test point to BCTP                              | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10158 | R | Pressure on BCTP decreases slowly until it<br>reaches +/- 0.2 bar | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10159 | R | Brake discs are not in contact with wheels<br>on TC1 bogies       | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 1.0     | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0     | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0     | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 1.0 | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10184 | A | Open the isolation cock C1.3.1  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10185 | R | Lamp 40H2 is OFF on the alarm mode for<br>EB reduced  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10188 | R | Brake discs are in contact with wheels on<br>TC1 bogies   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10207 | A | Remove manometer on TC1 BCTP point   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10208 | I | M4 service brake manual isolation  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10209 | A | Close the isolation cock C2.3.1  | OK |   | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10211 | R | Lamp 40H2 is "ON" on the alarm mode<br>for EB reduced  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10212 | A | Put manometer on M4 BCTP point   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10213 | R | Pressure measured on test point BCTP<br>decreases slowly until 0 bar (+/-0,2bar)   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10214 | R | Brake discs are not in contact with wheels<br>on M4 bogies   | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldc = 0.0     | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0        | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10233 | A | Open the isolation cock C2.3.1                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10234 | R | Lamp 40H2 is OFF for EB reduced on the alarm module  |  | OK |   | Mphato Mphahlele - 480716 | 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 |   | Mphato Mphahlele - 480716 | Train |
| 10236 | R | Brake discs are in contact with wheels on M4 bogies  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0   |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0   |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0   |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0   |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10249 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10255 | A | Remove manometer on M4 BCTP point  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10256 | I | M1 service brake manual isolation  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10257 | A | Close the isolation cock C2.3.1  | OK |   | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10259 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10260 | A | Put manometer on M1 BCTP point   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10261 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until 0bar (+/-0,2bar)                               | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10262 | R | Brake discs are not in contact with wheels<br>on M1 bogies   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10274 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10281 | A | Open the isolation cock C2.3.1   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10282 | R | Lamp 40H2 is OFF for EB reduced on the alarm module  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10283 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M1 car reaches 1,49bar (+/-0,2bar) | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10284 | R | Brake discs are in contact with wheels on M1 bogies  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10286 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10288 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10304 | A | Remove manometer on M1 BCTP point                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10305 | I | M2 service brake manual isolation                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10306 | A | Close the isolation cock C2.3.1                                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10307 | R | Lamp 40H2 is ON for EB reduced on the alarm module   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10308 | A | Put manometer on M2 BCTP point   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10309 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar) |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 1.0  |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10311 | R | Brake discs are not in contact with wheels on M2 bogies  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0   |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0   |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 1.0  |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                       |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0  |  | OK | 1 | Mphato Mphahlele - 480716 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10325 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10329 | A | Open the isolation cock C2.3.1  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10330 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module  | OK |   | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10332 | R | Brake discs are in contact with wheels on<br>M2 bogies  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10348 | A | Remove manometer on M2 BCTP point  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10349 | I | M3 Service brake manual isolation  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10350 | A | Close the isolation cock C2.3.1  | OK |   | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10352 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10353 | A | Put the manometer on the BCTP test point<br>of M3  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10354 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until Obar (+/-0,2bar)                               | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10355 | R | Brake discs are not in contact with wheels<br>on M3 bogies   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10361 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0        | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10380 | A | Open the isolation cock C2.3.1  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10381 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module  | OK |   | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10383 | R | Brake discs are in contact with wheels on<br>M3 bogies  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10397 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10402 | A | Remove the manometer from the BCTP<br>test point   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10403 | I | TC2 Service brake manual isolation   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10404 | A | Close the isolation cock C1.3.1  |  | OK |   | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10406 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10407 | A | Put manometer on BCTP test point   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10408 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until Obar (+/-0,2bar)                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10409 | R | Brake discs are not in contact with wheels<br>on TC2 bogies  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10420 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10428 | A | Open the isolation cock C1.3.1   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10429 | R | Lamp 40H2 is OFF for EB reduced on the alarm module  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10430 | A | Put the manometer on the BCTP point in TC2   | OK |   | Mphato Mphahlele -<br>480716 | 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 |   | Mphato Mphahlele -<br>480716 | Train |
| 10432 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10433 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10434 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10438 | R | Brake discs are in contact with wheels on<br>TC2 bogies            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldc = 0.0     |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10443 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10444 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10445 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10447 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10448 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10449 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10450 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10451 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10452 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10453 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10454 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10455 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10456 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10457 | A | Remove the manometer from the BCTP<br>point of TC2   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10458 | I | BCU Fault Test   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10459 | I | Emergency brake must be applied to force<br>the variables mentioned.<br>After forcing the variables, release<br>emergency brake. | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10460 | A | Position the master controller on OFF<br>position  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10461 | A | Put the direction selector switch in<br>Neutral position   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10462 | A | Force [TT] (BCU1)LO_BRK_FLT = 0.0  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10463 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 0.0   | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10464 | A | Release [TT] (BCU1)LO_BRK_FLT  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10465 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10466 | A | Force [TT] (TBCU4)LO_BRK_FLT = 0.0   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10467 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 0.0  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10468 | A | Release [TT] (TBCU4)LO_BRK_FLT   | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10469 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |  |    |   |                           |       |
|-------|---|--|----|---|---------------------------|-------|
| 10470 | A | Force [TT] (TBCU2)LO_BRK_FLT = 0.0   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10471 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 0.0   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10472 | A | Release [TT] (TBCU2)LO_BRK_FLT   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10473 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 1.0   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10474 | A | Force [TT] (TBCU1)LO_BRK_FLT = 0.0   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10475 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 0.0   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10476 | A | Release [TT] (TBCU1)LO_BRK_FLT   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10477 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 1.0   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10478 | A | Force [TT] (TBCU3)LO_BRK_FLT = 0.0   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10479 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 0.0   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10480 | A | Release [TT] (TBCU3)LO_BRK_FLT   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10481 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 1.0   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10482 | A | Force [TT] (BCU2)LO_BRK_FLT = 0.0  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10483 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 0.0  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10484 | A | Release [TT] (BCU2)LO_BRK_FLT  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10485 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 1.0  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10486 | I | Wheel Slide test   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10487 | A | On DDU from TC1 car, request the WSP test on test screen and perform the actions shown on DDU.   | OK |   | Mphato Mphahlele - 480716 | 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 |   | Mphato Mphahlele - 480716 | Train |
| 10489 | I | Safety requirement: [Prasa1-56]  | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10490 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BcuTstOk = 0.0                                 | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10491 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_BcuTstOk = 0.0                                | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10492 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_BcuTstOk = 0.0                                | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10493 | R | Read Defined Variable [TT]<br>(MPU1)TBCU3_BcuTstOk = 0.0                                | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10494 | R | Read Defined Variable [TT]<br>(MPU1)TBCU4_BcuTstOk = 0.0                                | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10495 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10496 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10497 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10498 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10499 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10500 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10501 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10502 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10503 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10504 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10505 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10506 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>OFF. | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |   |  |    |  |                              |       |
|-------|---|---|--|----|--|------------------------------|-------|
| 10507 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 |  | OK |  | Mphato Mphahlele -<br>480716 | Train |
| 10508 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 |  | OK |  | Mphato Mphahlele -<br>480716 | Train |
| 10509 | I | End of Test                                     |  | OK |  | Mphato Mphahlele -<br>480716 | Train |

### 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            |              | Mlungisi Madela - 529927 | Train   |
| 10002 | I    | Initial Conditions   |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10003 | I    | Car suspension is not isolated in all cars   |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10004 | I    | Air in main pipe is 10 bar   |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10005 | I    | TC1  |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10006 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 312.11       | Mlungisi Madela - 529927 | Train   |
| 10007 | R    | Read Min/Max [TT]<br>(MPU1)bcu1_bcusuppress : 311<= x <= 371                               |      | OK            | 314.37       | Mlungisi Madela - 529927 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspsodc = 0.0                                    |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10009 | A    | Close the isolation cock C1.10   |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspsodc = 1.0                                    |      | OK            | 1            | Mlungisi Madela - 529927 | Train   |
| 10011 | R    | Check Pressure on test point C1.11.2 = Obar<br>Read Undefined Value : x ()                 |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10012 | A    | Open the isolation cock C1.10  |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10013 | A    | Check all test point covers have been put back in place in the brake panel and suspension. |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10014 | I    | M4   |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10015 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 252          | Mlungisi Madela - 529927 | Train   |
| 10016 | R    | Read Min/Max [TT]<br>(MPU1)tbcu4_bcusuppress : 260<= x <= 320                              |      | OK            | 262.53       | Mlungisi Madela - 529927 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 0.0                                   |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10018 | A    | Close the isolation cock C2.10   |      | OK            |              | Mlungisi Madela - 529927 | Train   |

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|       |   |  |    |        |                              |       |
|-------|---|--|----|--------|------------------------------|-------|
| 10019 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 | OK | 0      | Mlungisi Madela - 529927     | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 1.0                                   | OK | 1      | Mlungisi Madela - 529927     | Train |
| 10021 | A | Open the isolation cock C2.10  | OK |        | Mlungisi Madela - 529927     | Train |
| 10022 | A | Check all test point covers have been put back in place in the brake panel and suspension. | OK |        | Mlungisi Madela - 529927     | Train |
| 10023 | I | M1   | OK |        | Mlungisi Madela - 529927     | Train |
| 10024 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      | OK | 248    | Mlungisi Madela - 529927     | Train |
| 10025 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcususppress : 271<= x <= 331                             | OK | 275    | Thandanani Makhanya - 463827 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 0.0                                   | OK | 0      | Mlungisi Madela - 529927     | Train |
| 10027 | A | Close the isolation cock C2.10   | OK |        | Mlungisi Madela - 529927     | Train |
| 10028 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 | OK | 0      | Mlungisi Madela - 529927     | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 1.0                                   | OK | 1      | Mlungisi Madela - 529927     | Train |
| 10030 | A | Open the isolation cock C2.10  | OK |        | Mlungisi Madela - 529927     | Train |
| 10031 | A | Check all test point covers have been put back in place in the brake panel and suspension. | OK |        | Mlungisi Madela - 529927     | Train |
| 10032 | I | M2   | OK |        | Mlungisi Madela - 529927     | Train |
| 10033 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      | OK | 269.1  | Mlungisi Madela - 529927     | Train |
| 10034 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcususppress : 271<= x <= 331                             | OK | 271.42 | Mlungisi Madela - 529927     | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 0.0                                   | OK | 0      | Mlungisi Madela - 529927     | Train |
| 10036 | A | Close the isolation cock C2.10   | OK |        | Mlungisi Madela - 529927     | Train |
| 10037 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 | OK | 0      | Mlungisi Madela - 529927     | Train |

|       |   |  |    |        |                             |       |
|-------|---|--|----|--------|-----------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 1.0   | OK | 1      | Mlungisi Madela -<br>529927 | Train |
| 10039 | A | Open the isolation cock C2.10  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10040 | A | Check all test point covers have been put<br>back in place in the brake panel and<br>suspension. | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10041 | I | M3   | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10042 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                            | OK | 265    | Mlungisi Madela -<br>529927 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcususppress : 260<= x <=<br>320                                | OK | 266.97 | Mlungisi Madela -<br>529927 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 0.0   | OK | 0      | Mlungisi Madela -<br>529927 | Train |
| 10045 | A | Close the isolation cock C2.10   | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10046 | R | Check Pressure on test point C2.11.2 =<br>Obar<br>Read Undefined Value : x ()                    | OK | 0      | Mlungisi Madela -<br>529927 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 1.0   | OK | 1      | Mlungisi Madela -<br>529927 | Train |
| 10048 | A | Open the isolation cock C2.10  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10049 | A | Check all test point covers have been put<br>back in place in the brake panel and<br>suspension. | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10050 | I | TC2  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10051 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                            | OK | 309    | Mlungisi Madela -<br>529927 | Train |
| 10052 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuSuspPress : 311<= x<br><= 371                                 | OK | 312.89 | Mlungisi Madela -<br>529927 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SusplsoDC = 0.0   | OK | 0      | Mlungisi Madela -<br>529927 | Train |
| 10054 | A | Close the isolation cock C1.10   | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SusplsoDC = 1.0   | OK | 1      | Mlungisi Madela -<br>529927 | Train |
| 10056 | R | Check Pressure on test point C1.11.2 =<br>Obar<br>Read Undefined Value : x ()                    | OK | 0      | Mlungisi Madela -<br>529927 | Train |
| 10057 | A | Open the isolation cock C1.10  | OK |        | Mlungisi Madela -<br>529927 | Train |

|       |   |  |  |    |  |                          |       |
|-------|---|--|--|----|--|--------------------------|-------|
| 10058 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10059 | I | End of Test  |  | OK |  | Mlungisi Madela - 529927 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Carol Gumede - 425280    | Train   |
| 10002 | I    | Emergency Brake Cylinder Pressure  |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10003 | I    | Pressure in the main pipe should be 10 bar +/- 0.2bar                          |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10004 | I    | The direction selector switch is in Neutral position                           |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10005 | I    | Emergency brake is applied   |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10006 | A    | Measure the pressure of the BCTP point in all cars with a calibrated manometer |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10007 | R    | BCTP TC1<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 175          | Sizwe Sibanyoni - 484647 | Train   |
| 10008 | R    | BCTP M4<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 190.7        | Sizwe Sibanyoni - 484647 | Train   |
| 10009 | R    | BCTP M1<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 193.4        | Sizwe Sibanyoni - 484647 | Train   |
| 10010 | R    | BCTP M2<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 197.1        | Sizwe Sibanyoni - 484647 | Train   |
| 10011 | R    | BCTP M3<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 188.4        | Sizwe Sibanyoni - 484647 | Train   |
| 10012 | R    | BCTP TC2<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 158.7        | Sizwe Sibanyoni - 484647 | Train   |
| 10013 | I    | Emergency brake TC1  |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10014 | I    | Emergency brake by Direction Switch TC1  |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10015 | I    | Direction selector switch is in NEUTRAL position                               |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10016 | A    | Active cab on TC1  |      | OK            |              | Carol Gumede - 425280    | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                           |      | OK            | 1            | Carol Gumede - 425280    | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                           |      | OK            | 0            | Carol Gumede - 425280    | Train   |
| 10019 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                            |      | OK            | 0            | Carol Gumede - 425280    | Train   |

|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnsb = 0.0    | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnsb = 0.0    | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnsb = 0.0    | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnsb = 0.0    | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position | OK |   | Carol Gumedé -<br>425280 | Train |
| 10025 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnsb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnsb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnsb = 1.0    | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnsb = 1.0    | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnsb = 1.0    | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnsb = 1.0    | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10032 | A | Put the direction selector switch in<br>REVERSE position | OK |   | Carol Gumedé -<br>425280 | Train |
| 10033 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnsb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnsb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnsb = 1.0    | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnsb = 1.0    | OK | 1 | Carol Gumedé -<br>425280 | Train |

|       |   |   |    |   |                          |       |
|-------|---|---|----|---|--------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlneb = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlneb = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10040 | A | Put the direction selector switch in<br>NEUTRAL position  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10041 | I | Emergency Brake Button TC1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10042 | A | Put the direction selector switch in<br>FORWARD position  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10043 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10044 | A | Apply emergency brake using the red<br>button 44S1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10045 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10046 | A | Release the button 44S1   | OK |   | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |
| 10048 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10049 | A | On the non-active cab TC2, apply<br>emergency brake using the red button<br>44S1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10050 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10051 | A | Release the button 44S1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10052 | A | Put the direction selector switch in<br>NEUTRAL position  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10053 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10054 | I | Emergency Brake by Master controller<br>TC1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10055 | A | Put the direction selector switch in<br>FORWARD position  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10057 | A | Put the master controller in EMERGENCY<br>BRAKE position | OK |   | Carol Gumedé -<br>425280 | Train |
| 10058 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10059 | A | Put the master controller in OFF position                | OK |   | Carol Gumedé -<br>425280 | Train |
| 10060 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10061 | I | PEA override TC1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10062 | A | Put the direction selector switch in<br>FORWARD position | OK |   | Carol Gumedé -<br>425280 | Train |
| 10063 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10064 | R | Lamp 44H5 is OFF   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10065 | A | Pull any PEA on train                                    | OK |   | Carol Gumedé -<br>425280 | Train |
| 10066 | R | Lamp 44H5 is ON  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10067 | A | Press the PEA override button 44S5                       | OK |   | Carol Gumedé -<br>425280 | Train |
| 10068 | A | Reset the PEA by switch 44S6                             | OK |   | Carol Gumedé -<br>425280 | Train |
| 10069 | R | Lamp 44H5 is OFF   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10070 | A | Press the button 44S5 to normalize PEA<br>override       | OK |   | Carol Gumedé -<br>425280 | Train |
| 10071 | I | Emergency brake TC2                                      | OK |   | Carol Gumedé -<br>425280 | Train |
| 10072 | I | Emergency brake by Direction Switch TC2                  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10073 | I | Direction selector switch is in NEUTRAL<br>position      | OK |   | Carol Gumedé -<br>425280 | Train |
| 10074 | A | Switch active cab to TC2                                 | OK |   | Carol Gumedé -<br>425280 | Train |
| 10075 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |  |    |   |                          |       |
|-------|---|--|----|---|--------------------------|-------|
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0      | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10082 | A | Put the direction selector switch in<br>FORWARD position | OK |   | Carol Gumedé -<br>425280 | Train |
| 10083 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10090 | A | Put the direction selector switch in<br>REVERSE position | OK |   | Carol Gumedé -<br>425280 | Train |
| 10091 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     | OK | 1 | Carol Gumedé -<br>425280 | Train |

|       |   |   |    |   |                          |       |
|-------|---|---|----|---|--------------------------|-------|
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlneb = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlneb = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlneb = 1.0   | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10098 | I | Emergency Brake Button TC2  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10099 | A | Apply emergency brake using the red<br>button 44S1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10100 | A | Put the direction selector switch in<br>FORWARD position  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10101 | A | Release the button 44S1   | OK |   | Carol Gumedé -<br>425280 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |
| 10104 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10105 | A | On the non-active can TC1, apply<br>emergency brake using the red button<br>44S1  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10106 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10107 | A | Release the button 44S1   | OK |   | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |
| 10109 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10110 | A | Put the direction selector switch in<br>NEUTRAL position  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10111 | I | Emergency Brake by Master controller<br>TC2   | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |   |  |    |   |                       |       |
|-------|---|---|--|----|---|-----------------------|-------|
| 10112 | A | Put the direction selector switch in FORWARD position             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10113 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10114 | A | Put the master controller in EMERGENCY BRAKE position             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10115 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10116 | A | Put the master controller in OFF position                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10117 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10118 | I | PEA override TC2  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10119 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10120 | A | Pull any PEA on train   |  | OK |   | Carol Gumedé - 425280 | Train |
| 10121 | R | Lamp 44H5 is ON   |  | OK |   | Carol Gumedé - 425280 | Train |
| 10122 | A | Press the PEA override button 44S5                                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10123 | A | Reset the PEA by switch 44S6                                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10124 | R | Lamp 44H5 is OFF  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10125 | A | Press the button 44S5 to normalize PEA override                   |  | OK |   | Carol Gumedé - 425280 | Train |
| 10126 | A | Put the direction selector switch in Neutral and FORWARD position |  | OK |   | Carol Gumedé - 425280 | Train |
| 10127 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10128 | I | Low Pressure  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10129 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10130 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10131 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                  |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10132 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0   |  | OK |   | Carol Gumedé -<br>425280 | 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 |   | Carol Gumedé -<br>425280 | Train |
| 10134 | R | On DDU screen, emergency brake due to low pressure appears   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 0.0  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 0.0  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10137 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10138 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10139 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10142 | I | The pressure in the main pipe should be at least 7 bar for emergency brake to be released                |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10143 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position                      |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 1.0  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 1.0  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10146 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10147 | I | End of Test  |  | OK |   | Carol Gumedé -<br>425280 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10002 | I    | Start of Test  |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10003 | A    | Turn the key to Active cab   |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10004 | A    | Close the battery contactor 18S1   |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                 |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                     |      | OK            | 1            | Paseka Ditlhakanyane - 491468 | Train   |
| 10007 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                      |      | OK            | 2            | Paseka Ditlhakanyane - 491468 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)NET_FDCUPresCIP = 1.0                                  |      | OK            | 1            | Paseka Ditlhakanyane - 491468 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireSystemOk = 1.0                                 |      | OK            | 1            | Paseka Ditlhakanyane - 491468 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireLocation = 1.0                                 |      | OK            | 1            | Paseka Ditlhakanyane - 491468 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                       |      | OK            | 0            | Paseka Ditlhakanyane - 491468 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data2 = 0.0                                       |      | OK            | 0            | Paseka Ditlhakanyane - 491468 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data3 = 0.0                                       |      | OK            | 0            | Paseka Ditlhakanyane - 491468 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_DiagData = 0.0                                    |      | OK            | 0            | Paseka Ditlhakanyane - 491468 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                     |      | OK            | 17           | Paseka Ditlhakanyane - 491468 | Train   |
| 10016 | I    | Fire Detection Simulation test in Saloon   |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10017 | I    | In order to see the CCTV footage where fire was simulated, navigate through the ISO event. |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |

|       |   |   |   |    |    |                               |       |
|-------|---|---|---|----|----|-------------------------------|-------|
| 10018 | I | Both cameras will be activated when a fire is detected in the saloon  |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10019 | I | All HVACs are operational   |  | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10020 | I | TC1   |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10021 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC1 cab for at least 1s                                |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10022 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location  |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10023 | R | HVAC stops working in the cab and TC1 saloon  |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0   |   | OK | 49 | Paseka Ditlhakanyane - 491468 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1.0   |   | OK | 1  | Paseka Ditlhakanyane - 491468 | Train |
| 10026 | A | Reset the fire detection loop on the DDU  |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10027 | R | 67H1 turns OFF on the Alarm Module and NO fire detected on the DDU  |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10028 | R | The HVAC of TC1 Cab and Saloon starts working in normal condition   |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0   |   | OK | 0  | Paseka Ditlhakanyane - 491468 | 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 |    | Paseka Ditlhakanyane - 491468 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0   |   | OK | 17 | Paseka Ditlhakanyane - 491468 | Train |
| 10032 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC1 car for at least 1s                                |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10033 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU   |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10034 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location  |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |
| 10035 | R | HVAC stop working in TC1 saloon.  |   | OK |    | Paseka Ditlhakanyane - 491468 | Train |

|       |   |  |    |    |                                  |       |
|-------|---|--|----|----|----------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0   | OK | 49 | Paseka Ditlhakanyane -<br>491468 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 2.0   | OK | 2  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10038 | A | Reset the fire detection loop on the DDU   | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10039 | R | HVAC starts working in TC1 saloon  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10040 | R | Camera footage disappears from the DDU<br>screen   | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0   | OK | 0  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0   | OK | 17 | Paseka Ditlhakanyane -<br>491468 | 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 |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10044 | R | The CCTV footage showing TC1 saloon<br>where the fire was detected is shown on<br>the DDU            | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10045 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10046 | R | HVAC stop working in TC1 saloon  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0   | OK | 49 | Paseka Ditlhakanyane -<br>491468 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 4.0   | OK | 4  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10049 | A | Reset the fire detection loop on the DDU   | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10050 | R | HVAC starts working in TC1 saloon  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10051 | R | Camera footage disappears from the DDU<br>screen   | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0   | OK | 0  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0   | OK | 17 | Paseka Ditlhakanyane -<br>491468 | Train |
| 10054 | I | M4 car Test  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10055 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on M4 car for at              | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |

|       |   |   |    |    |  |                               |       |
|-------|---|---|----|----|--|-------------------------------|-------|
|       |   | least 1s  |    |    |  |                               |       |
| 10056 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10057 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10058 | R | HVAC unit stop in M4 saloon.  | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0   | OK | 49 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32.0  | OK | 32 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10061 | A | Reset the fire detection loop on the DDU  | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10062 | R | HVAC starts working in the saloon   | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10063 | R | Camera footage disappears from the DDU screen   | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0   | OK | 0  |  | Paseka Ditlhakanyane - 491468 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0   | OK | 17 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10066 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M4 car for at least 1s | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10067 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10068 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10069 | R | HVAC stop working in the saloon   | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0   | OK | 49 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 64.0  | OK | 64 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10072 | A | Reset the fire detection loop on the DDU  | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |
| 10073 | R | HVAC starts working in M4 saloon  | OK |    |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |   |  |    |     |                               |       |
|-------|---|---|--|----|-----|-------------------------------|-------|
| 10074 | R | Camera footage disappears from the DDU screen   |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0   |  | OK | 0   | Paseka Ditlhakanyane - 491468 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0   |  | OK | 17  | Paseka Ditlhakanyane - 491468 | Train |
| 10077 | I | M1 car  |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10078 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M1 car for at least 1s |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10079 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10080 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10081 | R | HVAC stop working on M1   |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0   |  | OK | 49  | Paseka Ditlhakanyane - 491468 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 256.0   |  | OK | 256 | Paseka Ditlhakanyane - 491468 | Train |
| 10084 | A | Reset the fire detection loop on the DDU  |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10085 | R | HVAC starts working in M1 saloon  |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10086 | R | Camera footage disappears from the DDU screen   |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0   |  | OK | 0   | Paseka Ditlhakanyane - 491468 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0   |  | OK | 17  | Paseka Ditlhakanyane - 491468 | Train |
| 10089 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M1 car for at least 1s |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10090 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |
| 10091 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Paseka Ditlhakanyane - 491468 | Train |

|       |   |   |  |    |      |                               |       |
|-------|---|---|--|----|------|-------------------------------|-------|
| 10092 | R | HVAC stop working in M1 saloon.   |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Paseka Ditlhakanyane - 491468 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 512.0                                       |  | OK | 512  | Paseka Ditlhakanyane - 491468 | Train |
| 10095 | A | Reset the fire detection loop on the DDU  |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10096 | R | HVAC starts working in M1 saloon  |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10097 | R | Camera footage disappears from the DDU screen   |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0   |  | OK | 0    | Paseka Ditlhakanyane - 491468 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Paseka Ditlhakanyane - 491468 | Train |
| 10100 | I | M2 car Test   |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10101 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M2 for at least 1s |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10102 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10103 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10104 | R | HVAC stop working in M2   |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Paseka Ditlhakanyane - 491468 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4096.0                                      |  | OK | 4096 | Paseka Ditlhakanyane - 491468 | Train |
| 10107 | A | Reset the fire detection loop on the DDU  |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10108 | R | HVAC starts working in M2   |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10109 | R | Camera footage disappears from DDU screen   |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0   |  | OK | 0    | Paseka Ditlhakanyane - 491468 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Paseka Ditlhakanyane - 491468 | Train |

|       |   |   |  |    |       |                               |       |
|-------|---|---|--|----|-------|-------------------------------|-------|
| 10112 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M2 for at least 1s |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10113 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10114 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10115 | R | HVAC stop working   |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Paseka Ditlhakanyane - 491468 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2048.0                                      |  | OK | 2048  | Paseka Ditlhakanyane - 491468 | Train |
| 10118 | A | Reset the fire detection loop on the DDU  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10119 | R | HVAC starts working in M2   |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10120 | R | Camera footage disappears from the DDU screen   |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0   |  | OK | 0     | Paseka Ditlhakanyane - 491468 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17    | Paseka Ditlhakanyane - 491468 | Train |
| 10123 | I | M3 car Test   |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10124 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M3 for at least 1s |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10125 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU        |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10126 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10127 | R | HVAC stop working in M3   |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Paseka Ditlhakanyane - 491468 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32768.0                                     |  | OK | 32768 | Paseka Ditlhakanyane - 491468 | Train |

|       |   |  |  |    |       |                               |       |
|-------|---|--|--|----|-------|-------------------------------|-------|
| 10130 | A | Reset the fire detection loop on the DDU   |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10131 | R | HVAC starts working in M3  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10132 | R | Camera footage disappears from the DDU screen  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0  |  | OK | 0     | Paseka Ditlhakanyane - 491468 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0  |  | OK | 17    | Paseka Ditlhakanyane - 491468 | Train |
| 10135 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M3 for at least 1s  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10136 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU         |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10137 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10138 | R | HVAC stop working in M3  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0  |  | OK | 49    | Paseka Ditlhakanyane - 491468 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 16384.0                                      |  | OK | 16384 | Paseka Ditlhakanyane - 491468 | Train |
| 10141 | A | Reset the fire detection loop on the DDU   |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10142 | R | HVAC starts working in M3  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10143 | R | Camera footage disappears from the DDU screen  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0  |  | OK | 0     | Paseka Ditlhakanyane - 491468 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0  |  | OK | 17    | Paseka Ditlhakanyane - 491468 | Train |
| 10146 | I | TC2  |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10147 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC2 for at least 1s |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |
| 10148 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Paseka Ditlhakanyane - 491468 | Train |

|       |   |  |    |        |                               |       |
|-------|---|--|----|--------|-------------------------------|-------|
| 10149 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10150 | R | HVAC stops working in TC2 saloon   | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0  | OK | 49     | Paseka Ditlhakanyane - 491468 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 524288.0                                     | OK | 524288 | Paseka Ditlhakanyane - 491468 | Train |
| 10153 | A | Reset the fire detection loop on the DDU   | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10154 | R | HVAC starts working in TC2   | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10155 | R | Camera footage disappears from the DDU screen  | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0  | OK | 0      | Paseka Ditlhakanyane - 491468 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0  | OK | 17     | Paseka Ditlhakanyane - 491468 | Train |
| 10158 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC2 for at least 1s | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10159 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10160 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10161 | R | HVAC stops working in TC2 saloon   | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10162 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0  | OK | 49     | Paseka Ditlhakanyane - 491468 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 262144.0                                     | OK | 262144 | Paseka Ditlhakanyane - 491468 | Train |
| 10164 | A | Reset the fire detection loop on the DDU   | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10165 | R | HVAC starts working in TC2   | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10166 | R | Camera footage disappears from the DDU screen  | OK |        | Paseka Ditlhakanyane - 491468 | Train |
| 10167 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0  | OK | 0      | Paseka Ditlhakanyane - 491468 | Train |

|       |   |  |   |    |         |                                  |       |
|-------|---|--|---|----|---------|----------------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0   |   | OK | 17      | Paseka Ditlhakanyane -<br>491468 | Train |
| 10169 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC2 cab for at least 1s |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10170 | R | 67H1 becomes "ON" on the Alarm Module of TC2 and TC1, and the DDU also shows the fire location |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10171 | R | HVAC stops working in TC2 saloon   |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0   |   | OK | 49      | Paseka Ditlhakanyane -<br>491468 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 131072.0                                      |   | OK | 131072  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10174 | A | Reset the fire detection loop on the DDU   |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10175 | R | HVAC starts working in TC2   |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0   |   | OK | 0       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0   |   | OK | 17      | Paseka Ditlhakanyane -<br>491468 | Train |
| 10178 | I | Fire Detection Simulation Underframe   |  | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10179 | I | TC2 ACU Test   |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10180 | A | Toggle the switch to activate a fire in the ACU  |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10181 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                 |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10182 | R | Read Undefined Variable [TT]<br>(MPU1)FDCU_Data1   |   | OK | 2097152 | Paseka Ditlhakanyane -<br>491468 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0                                  |   | OK | 0       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                                  |   | OK | 1       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10185 | A | Remove the switch and put back the cover   |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |
| 10186 | A | Reset the fire detection loop from the DDU   |   | OK |         | Paseka Ditlhakanyane -<br>491468 | Train |

|       |   |   |    |       |                                  |       |
|-------|---|---|----|-------|----------------------------------|-------|
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              | OK | 0     | Paseka Ditlhakanyane -<br>491468 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            | OK | 17    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10189 | I | M3 car propulsion box   | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10190 | A | Toggle the switch to activate a fire in M3<br>propulsion box                      | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10191 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 65536.0                          | OK | 65536 | Paseka Ditlhakanyane -<br>491468 | Train |
| 10193 | R | Confirm that the value above is 65536   | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10194 | A | Remove the switch and put back the cover  | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10195 | A | Reset the fire detection loop from the<br>DDU                                     | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              | OK | 0     | Paseka Ditlhakanyane -<br>491468 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            | OK | 17    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10198 | I | M2 car propulsion box   | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10199 | A | Toggle the switch to activate a fire in M2<br>propulsion box                      | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10200 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 8192.0                           | OK | 8192  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10202 | A | Remove the switch and put back the cover  | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10203 | A | Reset the fire detection loop from the<br>DDU                                     | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              | OK | 0     | Paseka Ditlhakanyane -<br>491468 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            | OK | 17    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10206 | I | M1 car propulsion box   | OK |       | Paseka Ditlhakanyane -<br>491468 | Train |

|       |   |  |  |    |      |                               |       |
|-------|---|--|--|----|------|-------------------------------|-------|
| 10207 | A | Toggle the switch to activate a fire in M1 propulsion box                      |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10208 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1024.0                           |  | OK | 1024 | Paseka Ditlhakanyane - 491468 | Train |
| 10210 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 1.0                     |  | OK | 1    | Paseka Ditlhakanyane - 491468 | Train |
| 10211 | A | Remove the switch and put back the cover                                       |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10212 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10213 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Paseka Ditlhakanyane - 491468 | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Paseka Ditlhakanyane - 491468 | Train |
| 10215 | I | M4 Propulsion box  |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10216 | A | Toggle the switch to activate a fire in M4 Propulsion box                      |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10217 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 128.0                            |  | OK | 128  | Paseka Ditlhakanyane - 491468 | Train |
| 10219 | A | Remove the switch and put back the cover                                       |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10220 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Paseka Ditlhakanyane - 491468 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Paseka Ditlhakanyane - 491468 | Train |
| 10223 | I | TC1 ACU Test   |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10224 | A | Toggle the switch in TC1 to activate a fire in the ACU                         |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |
| 10225 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Paseka Ditlhakanyane - 491468 | Train |

|       |   |   |  |    |    |                                  |       |
|-------|---|---|--|----|----|----------------------------------|-------|
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16.0         |  | OK | 16 | Paseka Ditlhakanyane -<br>491468 | Train |
| 10227 | A | Remove the switch and put back the cover                      |  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10228 | A | Reset the fire detection loop from the<br>DDU                 |  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0          |  | OK | 0  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0        |  | OK | 17 | Paseka Ditlhakanyane -<br>491468 | Train |
| 10231 | A | Close the HSCB  |  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0 |  | OK | 0  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0 |  | OK | 0  | Paseka Ditlhakanyane -<br>491468 | Train |
| 10234 | I | End of Test   |  | OK |    | Paseka Ditlhakanyane -<br>491468 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10002 | I    | Initial Conditions  |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10003 | I    | All doors should be closed  |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10004 | I    | Speed less than 3km/h relay 61K3 is energized                     |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10005 | I    | Start of Test   |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10006 | I    | Uploading procedure:  |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10007 | I    | Follow the below instructions to upload software on all the doors |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10008 | I    | Doors functional Test TC1 Cab                                     |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10009 | I    | Door authorization not possible in non-active cab                 |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10010 | A    | Remove active cab on TC1  |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10011 | A    | Put the door authorization switch 50S7 to DRIVER mode             |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10012 | A    | Press the AUTH LEFT button 50S5                                   |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10013 | R    | Door AUTH LEFT not possible, Lamp 50S5 is OFF                     |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10014 | A    | Press the OPEN LEFT button 50S1                                   |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10015 | R    | OPEN LEFT door not possible, Lamp 50S1 is OFF                     |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10016 | A    | Press the AUTH RIGHT button 50S6                                  |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10017 | R    | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                    |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10018 | A    | Press the OPEN RIGHT button 50S2                                  |  | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |

|       |   |   |   |    |   |                                 |       |
|-------|---|---|---|----|---|---------------------------------|-------|
| 10019 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                            |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10020 | I | Door authorization with active cab  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10021 | A | Activate cab on TC1   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0         |   | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10023 | A | Press and hold the AUTH LEFT button 50S5                                  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1opendoorpleftr1 = 0.0          |   | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10025 | A | Press and hold the OPEN LEFT button 50S1                                  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorleft = 1.0             |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1opendoorpleftr1 = 1.0          |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10028 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10029 | R | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10030 | A | Press and hold the CLOSE LEFT button 50S3                                 |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorpleftr1 = 1.0         |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorlineleft = 1.0        |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10033 | R | Lamp 51H1 is OFF  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10034 | R | Check on the DDU screen that all left doors are closed and in blue colour |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10035 | A | Press and hold the AUTH RIGHT button 50S6                                 |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10036 | R | Lamp 50S6 is ON   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1authdoorpbright = 1.0          |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10038 | R | Read Defined Variable [TT]  |   | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |   |   |    |   |                                 |       |
|-------|---|---|---|----|---|---------------------------------|-------|
|       |   | (MPU1)li_dor_tc1opendoorbrightr1 = 0.0  |   |    |   |                                 |       |
| 10039 | A | Press and hold the OPEN RIGHT button 50S2   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorright = 1.0  |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorright = 1.0  |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10042 | R | Check on DDU screen that all right doors are OPEN   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10043 | R | Door safety loop is OPEN, lamp 51H1 is ON   |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10044 | A | Press and hold the button 50S4 to close all right doors   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorbrightr1 = 1.0  |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10046 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorlineright = 1.0   |   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10047 | R | Lamp 51H1 is OFF  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10048 | R | Check on the DDU screen that all right doors are closed and in blue colour  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10049 | A | Press the AUTH LEFT button 50S5   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10050 | A | Press the OPEN LEFT button 50S1   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10051 | A | Press the AUTH RIGHT button 50S6  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10052 | A | Press the OPEN RIGHT button 50S2  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | 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 |   | Amanda Ntuli - 526239           | Train |
| 10054 | A | Press the CLOSE LEFT button 50S3  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10055 | A | Press the CLOSE RIGHT button 50S4   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10056 | R | All doors are closed on the DDU screen  |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10057 | I | Train speed more than 3km/h TC1   |   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |   |  |    |  |                       |       |
|-------|---|---|--|----|--|-----------------------|-------|
| 10058 | A | Open 61Q1 to switch OFF the OTDR                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10059 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10060 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10061 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10062 | A | Press the OPEN RIGHT button 50S2                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10063 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0           |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10064 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0           |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10065 | R | All left doors are closed                         |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10066 | R | All right doors are closed                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10067 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10068 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10069 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10070 | A | Press the OPEN RIGHT button 50S2                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10071 | R | All doors remain closed                           |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10072 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10073 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10074 | I | Doors functional Test TC2 Cab                     |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10075 | I | Door authorization not possible in non-active cab |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10076 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10077 | R | Door AUTH LEFT not possible, Lamp 50S5 is OFF     |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10078 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10079 | R | OPEN LEFT door is not possible, Lamp 50S1 is OFF  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10080 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Amanda Ntuli - 526239 | Train |

|       |   |   |   |    |   |                       |       |
|-------|---|---|---|----|---|-----------------------|-------|
| 10081 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                        |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10082 | A | Press the OPEN RIGHT button 50S2                                      |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10083 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                        |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10084 | I | Door authorization with active cab                                    |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10085 | A | Activate cab on TC2   |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10086 | A | Set the door authorization switch 50S7 to DRIVER mode in LV1          |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0  |   | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10088 | A | Press and hold the AUTH LEFT button 50S5                              |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpleft = 1.0     |   | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 0.0   |   | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10091 | A | Press and hold the OPEN LEFT button 50S1                              |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0      |   | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 1.0   |   | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10094 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour  |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10095 | I | Door safety loop is OPEN, lamp 51H1 is ON                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10096 | A | Press and hold the CLOSE LEFT button 50S3                             |   | OK |   | Amanda Ntuli - 526239 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0 |   | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpleftr1 = 1.0  |   | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10099 | R | Lamp 51H1 is OFF  |   | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |   |  |    |   |                       |       |
|-------|---|---|--|----|---|-----------------------|-------|
| 10100 | R | Check on the DDU screen that all left doors are closed and in blue colour   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10101 | A | Press and hold and hold the AUTH RIGHT button 50S6  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpbright = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10104 | A | Press and hold the OPEN RIGHT button 50S2   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 1.0  |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10106 | R | Check on DDU screen that all right doors are OPEN   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10107 | I | Door safety loop is OPEN, lamp 51H1 is ON   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10108 | R | Press the CLOSE RIGHT button 50S4   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpbright1 = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10111 | R | Lamp 51H1 is OFF  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10112 | R | Check on the DDU screen that all right doors are closed and in blue colour  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10113 | A | Press the AUTH LEFT button 50S5   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10114 | A | Press the OPEN LEFT button 50S1   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10115 | A | Press the AUTH RIGHT button 50S6  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10116 | A | Press the OPEN RIGHT button 50S2  |  | OK |   | Amanda Ntuli - 526239 | 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 |   | Amanda Ntuli - 526239 | Train |
| 10118 | A | Press the CLOSE LEFT button 50S3  |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |   |  |    |  |                                 |       |
|-------|---|---|--|----|--|---------------------------------|-------|
| 10119 | A | Press the CLOSE RIGHT button 50S4   |  | OK |  | Amanda Ntuli - 526239           | Train |
| 10120 | R | All doors are closed on the DDU screen  |  | OK |  | Amanda Ntuli - 526239           | Train |
| 10121 | I | Train speed more than 3km/h TC2   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10122 | A | Open 61Q1 to switch OFF the OTDR  |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10123 | A | Press the AUTH LEFT button 50S5   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10124 | A | Press the OPEN LEFT button 50S1   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10125 | A | Press the AUTH RIGHT button 50S6  |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10126 | A | Press the OPEN RIGHT button 50S2  |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10127 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10128 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10129 | R | All left doors are closed   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10130 | R | All right doors are closed  |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10131 | A | Press the AUTH LEFT button 50S5   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10132 | A | Press the OPEN LEFT button 50S1   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10133 | A | Press the AUTH RIGHT button 50S6  |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10134 | A | Press the OPEN RIGHT button 50S2  |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10135 | R | All doors remain closed   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10136 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10137 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1   |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10138 | A | Close 61Q1 circuit breaker  |  | OK |  | Nokuzola Mdluli - 491469        | Train |
| 10139 | I | Door Obstacle Detection   |  | OK |  | Goitsemodimo Kgatitswe - 526511 | 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 |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10141 | A | Press the DOOR AUTH left button 50S5  |  | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |   |   |    |    |                                    |       |
|-------|---|---|---|----|----|------------------------------------|-------|
| 10142 | A | Press the button 50S1 to open left doors  |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10143 | A | Place an obstacle at the centre of any of the open doors                          |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10144 | A | Close the left doors  |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10145 | I | The door with an obstacle will attempt to close 3 times                           |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10146 | R | The door with an obstacle appears in white colour on the DDU screen               |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10147 | A | Remove the obstacle   |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10148 | A | Open and close left doors   |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10149 | R | The door which had the obstacle appears closed on the DDU and it's in blue colour |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10150 | I | Door Manual Opening   |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10151 | A | All doors should be closed including the door covers in each saloon               |   | OK |    | Amanda Ntuli - 526239              | Train |
| 10152 | I | TC1   |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10153 | A | Put the switch 50S7 in DRIVER mode  |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10154 | A | Try to manually open ALL TC1 DOORS  |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10155 | R | It is not possible to manually open any of the doors                              |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10156 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA          |   | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10157 | R | DOOR1 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |   | OK | 59 | Amanda Ntuli - 526239              | Train |
| 10158 | R | DOOR2 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |   | OK | 81 | Amanda Ntuli - 526239              | Train |
| 10159 | R | DOOR3 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |   | OK | 75 | Amanda Ntuli - 526239              | Train |
| 10160 | R | DOOR4 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |   | OK | 85 | Amanda Ntuli - 526239              | Train |
| 10161 | R | DOOR5 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |   | OK | 78 | Amanda Ntuli - 526239              | Train |
| 10162 | R | DOOR6 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |   | OK | 72 | Amanda Ntuli - 526239              | Train |
| 10163 | A | Manually open the doors   |   | OK |    | Amanda Ntuli - 526239              | Train |
| 10164 | R | Doors opens freely  |   | OK |    | Amanda Ntuli - 526239              | Train |

|       |   |   |  |    |   |                                    |       |
|-------|---|---|--|----|---|------------------------------------|-------|
| 10165 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Amanda Ntuli - 526239              | Train |
| 10166 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Amanda Ntuli - 526239              | Train |
| 10167 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Amanda Ntuli - 526239              | Train |
| 10168 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Amanda Ntuli - 526239              | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0 |  | OK | 1 | Amanda Ntuli - 526239              | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0  |  | OK | 1 | Amanda Ntuli - 526239              | Train |
| 10171 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10172 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10173 | R | The TC1 doors remains open  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10174 | A | Press the button 54S3 to acknowledge<br>PEAs                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10175 | A | Reset the PEA using switch 44S6                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10176 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10177 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10178 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10179 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10180 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10181 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10182 | R | The TC1 doors closes  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10183 | A | Activate the lockout device on ALL TC1<br>Doors                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10184 | R | Doors of TC1 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10185 | A | Try to manually open the doors                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10186 | R | It is not possible to open any of the doors                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10187 | A | Pull the PEAs   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |  |  |    |    |                                    |       |
|-------|---|--|--|----|----|------------------------------------|-------|
| 10188 | A | Try to manually open the doors   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10189 | R | It is not possible to open any of the doors                              |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10190 | A | Press AUTH LEFT BUTTON 50S5  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10191 | A | Press AUTH RIGHT BUTTON 50S6   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10192 | A | Press the OPEN LEFT button 50S1  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10193 | A | Press the OPEN RIGHT button 50S2   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10194 | R | All Train doors are open except for TC1 doors                            |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10196 | A | Release the lockout devices  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10197 | A | Reset the PEAs using the switch 44S6                                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10198 | A | Press the CLOSE LEFT button 50S3   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10199 | A | Press the CLOSE RIGHT button 50S4  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10200 | R | Doors appears as Closed on the DDU screen                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0  | Amanda Ntuli - 526239              | Train |
| 10202 | I | M4 car   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10203 | A | Try to manually open ALL M4 DOORS  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10204 | R | It is not possible to manually open any of the doors                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10205 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10206 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 72 | Amanda Ntuli - 526239              | Train |
| 10207 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 86 | Amanda Ntuli - 526239              | Train |
| 10208 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 63 | Amanda Ntuli - 526239              | Train |
| 10209 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 87 | Amanda Ntuli - 526239              | Train |
| 10210 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 76 | Amanda Ntuli - 526239              | Train |

|       |   |  |  |    |    |                                    |       |
|-------|---|--|--|----|----|------------------------------------|-------|
| 10211 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 72 | Amanda Ntuli - 526239              | Train |
| 10212 | A | Manually open the doors  |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10213 | R | Doors opens freely   |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10214 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10215 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10216 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10217 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorright = 1.0 |  | OK | 1  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorleft = 1.0  |  | OK | 1  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10220 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10221 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10222 | R | The M4 doors remains open  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10223 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10224 | A | Reset the PEA using switch 44S6                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10225 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10226 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10227 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10228 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10229 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10230 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10231 | R | The M4 doors closes  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10232 | A | Activate the lockout device on ALL M4<br>Doors                   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10233 | R | Doors of M4 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10234 | A | Try to manually open the doors                                   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |  |  |    |    |                                 |       |
|-------|---|--|--|----|----|---------------------------------|-------|
| 10235 | R | It is not possible to open any of the doors                              |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10236 | A | Pull the PEAs  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10237 | A | Try to manually open the doors   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10238 | R | It is not possible to open any of the doors                              |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10239 | A | Press AUTH LEFT BUTTON 50S5  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10240 | A | Press AUTH RIGHT BUTTON 50S6   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10241 | A | Press the OPEN LEFT button 50S1  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10242 | A | Press the OPEN RIGHT button 50S2   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10243 | R | All Train doors are open except for M4 doors                             |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10244 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10245 | A | Release the lockout devices  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10246 | A | Reset the PEAs using the switch 44S6                                     |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10247 | A | Press the CLOSE LEFT button 50S3   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10248 | A | Press the CLOSE RIGHT button 50S4  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10249 | R | Doors appears as Closed on the DDU screen                                |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10250 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        |  | OK | 0  | Amanda Ntuli - 526239           | Train |
| 10251 | I | M1 car   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10252 | A | Try to manually open ALL M1 DOORS  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10253 | R | It is not possible to manually open any of the doors                     |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10254 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10255 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 87 | Amanda Ntuli - 526239           | Train |
| 10256 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 85 | Amanda Ntuli - 526239           | Train |
| 10257 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 78 | Amanda Ntuli - 526239           | Train |

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|-------|---|--|--|----|----|------------------------------------|-------|
| 10258 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 62 | Amanda Ntuli - 526239              | Train |
| 10259 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 67 | Amanda Ntuli - 526239              | Train |
| 10260 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 70 | Amanda Ntuli - 526239              | Train |
| 10261 | A | Manually open the doors  |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10262 | R | Doors opens freely   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10263 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10264 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10265 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10266 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m1opendoorright = 1.0 |  | OK | 1  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10269 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10270 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10271 | R | The M1 doors remains open  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10272 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10273 | A | Reset the PEA using switch 44S6                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10274 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10275 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10276 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10277 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10278 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10279 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10280 | R | The M1 doors closes  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10281 | A | Activate the lockout device on ALL M1<br>Doors                   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |  |  |    |    |                                 |       |
|-------|---|--|--|----|----|---------------------------------|-------|
| 10282 | R | Doors of M1 appear as OUT OF SERVICE on DDU screen                       |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10283 | A | Try to manually open the doors   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10284 | R | It is not possible to open any of the doors                              |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10285 | A | Pull the PEAs  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10286 | A | Try to manually open the doors   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10287 | R | It is not possible to open any of the doors                              |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10288 | A | Press AUTH LEFT BUTTON 50S5  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10289 | A | Press AUTH RIGHT BUTTON 50S6   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10290 | A | Press the OPEN LEFT button 50S1  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10291 | A | Press the OPEN RIGHT button 50S2   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10292 | R | All Train doors are open except for M1 doors                             |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10293 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10294 | A | Release the lockout devices  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10295 | A | Reset the PEAs using the switch 44S6                                     |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10296 | A | Press the CLOSE LEFT button 50S3   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10297 | A | Press the CLOSE RIGHT button 50S4  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10298 | R | Doors appears as Closed on the DDU screen                                |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10299 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        |  | OK | 0  | Amanda Ntuli - 526239           | Train |
| 10300 | I | M2 car   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10301 | A | Try to manually open ALL M2 DOORS  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10302 | R | It is not possible to manually open any of the doors                     |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10303 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10304 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 69 | Amanda Ntuli - 526239           | Train |

|       |   |  |  |    |    |                                    |       |
|-------|---|--|--|----|----|------------------------------------|-------|
| 10305 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 72 | Amanda Ntuli - 526239              | Train |
| 10306 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 75 | Amanda Ntuli - 526239              | Train |
| 10307 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 81 | Amanda Ntuli - 526239              | Train |
| 10308 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 85 | Amanda Ntuli - 526239              | Train |
| 10309 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 72 | Amanda Ntuli - 526239              | Train |
| 10310 | A | Manually open the doors  |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10311 | R | Doors opens freely   |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10312 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10313 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10314 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10315 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorright = 1.0 |  | OK | 1  | Amanda Ntuli - 526239              | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1  | Amanda Ntuli - 526239              | Train |
| 10318 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10319 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10320 | R | The M2 doors remains open  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10321 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10322 | A | Reset the PEA using switch 44S6                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10323 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10324 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10325 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10326 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10327 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10328 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10329 | R | The M2 doors closes  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |   |  |    |   |                                 |       |
|-------|---|---|--|----|---|---------------------------------|-------|
| 10330 | A | Activate the lockout device on ALL M2 Doors                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10331 | R | Doors of M2 appear as OUT OF SERVICE on DDU screen                |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10332 | A | Try to manually open the doors                                    |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10333 | R | It is not possible to open any of the doors                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10334 | A | Pull the PEAs   |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10335 | A | Try to manually open the doors                                    |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10336 | R | It is not possible to open any of the doors                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10337 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10338 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10339 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10340 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10341 | R | All Train doors are open except for M2 doors                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10342 | A | Press the button 54S3 to acknowledge PEA                          |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10343 | A | Release the lockout devices                                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10344 | A | Reset the PEAs using the switch 44S6                              |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10345 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10346 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10347 | R | Doors appears as Closed on the DDU screen                         |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10348 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Amanda Ntuli - 526239           | Train |
| 10349 | I | M3 car  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10350 | A | Try to manually open ALL M3 DOORS                                 |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10351 | R | It is not possible to manually open any of the doors              |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |  |  |    |    |                                 |       |
|-------|---|--|--|----|----|---------------------------------|-------|
| 10352 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10353 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 77 | Amanda Ntuli - 526239           | Train |
| 10354 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 69 | Amanda Ntuli - 526239           | Train |
| 10355 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 82 | Amanda Ntuli - 526239           | Train |
| 10356 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 65 | Amanda Ntuli - 526239           | Train |
| 10357 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 71 | Amanda Ntuli - 526239           | Train |
| 10358 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 79 | Amanda Ntuli - 526239           | Train |
| 10359 | A | Manually open the doors  |  | OK |    | Amanda Ntuli - 526239           | Train |
| 10360 | R | Doors opens freely   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10361 | A | Press AUTH LEFT BUTTON 50S5  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10362 | A | Press AUTH RIGHT BUTTON 50S6   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10363 | A | Press the OPEN LEFT button 50S1  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10364 | A | Press the OPEN RIGHT button 50S2   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorright = 1.0         |  | OK | 1  | Amanda Ntuli - 526239           | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorleft = 1.0          |  | OK | 1  | Amanda Ntuli - 526239           | Train |
| 10367 | A | Press the CLOSE LEFT button 50S3   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10368 | A | Press the CLOSE RIGHT button 50S4  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10369 | R | The M3 doors remains open  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10370 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10371 | A | Reset the PEA using switch 44S6  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10372 | A | Press AUTH LEFT BUTTON 50S5  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10373 | A | Press AUTH RIGHT BUTTON 50S6   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10374 | A | Press the OPEN LEFT button 50S1  |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |
| 10375 | A | Press the OPEN RIGHT button 50S2   |  | OK |    | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |   |  |    |   |                                    |       |
|-------|---|---|--|----|---|------------------------------------|-------|
| 10376 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10377 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10378 | R | The M3 doors closes   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10379 | A | Activate the lockout device on ALL M3 Doors                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10380 | R | Doors of M3 appear as OUT OF SERVICE on DDU screen                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10381 | A | Try to manually open the doors                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10382 | R | It is not possible to open any of the doors                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10383 | A | Pull the PEAs   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10384 | A | Try to manually open the doors                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10385 | R | It is not possible to open any of the doors                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10386 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10387 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10388 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10389 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10390 | R | All Train doors are open except for M3 doors                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10391 | A | Press the button 54S3 to acknowledge PEA                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10392 | A | Release the lockout devices                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10393 | A | Reset the PEAs using the switch 44S6                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10394 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10395 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10396 | R | Doors appears as Closed on the DDU screen                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10397 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Amanda Ntuli - 526239              | Train |
| 10398 | I | TC2 car   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |  |  |    |    |                                    |       |
|-------|---|--|--|----|----|------------------------------------|-------|
| 10399 | A | Try to manually open ALL TC2 DOORS                                       |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10400 | R | It is not possible to manually open any of the doors                     |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10401 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10402 | R | DOOR1 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 92 | Amanda Ntuli - 526239              | Train |
| 10403 | R | DOOR2 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 76 | Amanda Ntuli - 526239              | Train |
| 10404 | R | DOOR3 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 69 | Amanda Ntuli - 526239              | Train |
| 10405 | R | DOOR4 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 84 | Amanda Ntuli - 526239              | Train |
| 10406 | R | DOOR5 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 70 | Amanda Ntuli - 526239              | Train |
| 10407 | R | DOOR6 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 73 | Amanda Ntuli - 526239              | Train |
| 10408 | A | Manually open the doors  |  | OK |    | Amanda Ntuli - 526239              | Train |
| 10409 | R | Doors opens freely   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10410 | A | Press AUTH LEFT BUTTON 50S5  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10411 | A | Press AUTH RIGHT BUTTON 50S6   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10412 | A | Press the OPEN LEFT button 50S1  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10413 | A | Press the OPEN RIGHT button 50S2   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorright = 1.0        |  | OK | 1  | Amanda Ntuli - 526239              | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0         |  | OK | 1  | Amanda Ntuli - 526239              | Train |
| 10416 | A | Press the CLOSE LEFT button 50S3   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10417 | A | Press the CLOSE RIGHT button 50S4  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10418 | R | The TC2 doors remains open   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10419 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10420 | A | Reset the PEA using switch 44S6  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10421 | A | Press AUTH LEFT BUTTON 50S5  |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10422 | A | Press AUTH RIGHT BUTTON 50S6   |  | OK |    | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |   |  |    |  |                                    |       |
|-------|---|---|--|----|--|------------------------------------|-------|
| 10423 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10424 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10425 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10426 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10427 | R | The TC2 doors closes                                |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10428 | A | Activate the lockout device on ALL TC2 Doors        |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10429 | R | Doors of TC2 appear as OUT OF SERVICE on DDU screen |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10430 | A | Try to manually open the doors                      |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10431 | R | It is not possible to open any of the doors         |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10432 | A | Pull the PEAs                                       |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10433 | A | Try to manually open the doors                      |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10434 | R | It is not possible to open any of the doors         |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10435 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10436 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10437 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10438 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10439 | R | All Train doors are open except for TC2 doors       |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA            |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10441 | A | Release the lockout devices                         |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10442 | A | Reset the PEAs using the switch 44S6                |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10443 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10444 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10445 | R | Doors appears as Closed on the DDU screen           |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0   |  | OK | 0 | Amanda Ntuli - 526239    | Train |
| 10447 | I | Door cycle test  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10448 | I | This test should be performed at the end of the shift when there is no one who will want to go inside the train and disrupt the test cycle.    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10449 | A | Check all the doors beep when opening and closing  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10450 | A | Check door lights are green when open for all doors  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10451 | A | Check door lights are red when closing from all doors  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10452 | A | Launch the door cycle test from the DDU  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10453 | I | At the beginning of the next shift (test should be left to run overnight), all doors should still be able to open and close without any issues |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10454 | R | Door cycle test is successful  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10455 | I | End Test   |  | OK |   | Nokuzola Mdluli - 491469 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Tshembhani Khosa - 446920 | Train   |
| 10002 | I    | Initial Conditions   |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10003 | I    | The direction selector switch 30A1.S2 should be in NEUTRAL position  |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10004 | I    | All doors should be closed   |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10005 | I    | Emergency brake should be applied                                    |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10006 | I    | PEA override switch should be in NORMAL position                     |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10007 | I    | Traction Interlock override switch 31S1 should be in NORMAL position |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10008 | I    | Backup mode switch 27S1 should be in NORMAL position                 |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10009 | I    | Start of Test  |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10010 | I    | Traction Interlock TC1   |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10011 | A    | Active cab on TC1  |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10012 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                   |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10013 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                   |      | OK            |              | Tshembhani Khosa - 446920 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0            |      | OK            | 0            | Tshembhani Khosa - 446920 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0            |      | OK            | 0            | Tshembhani Khosa - 446920 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0           |      | OK            | 0            | Tshembhani Khosa - 446920 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0           |      | OK            | 0            | Tshembhani Khosa - 446920 | Train   |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10024 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10025 | I | Emergency brake is released  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10036 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10037 | I | Emergency brake is released  |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10048 | I | Traction interlock with Doors TC1                                      |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10049 | A | Manually open any door   |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10050 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10061 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10062 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10063 | R | The opened door will automatically close                               |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10074 | A | Activate any PEA   |  | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |   |  |    |   |                           |       |
|-------|---|---|--|----|---|---------------------------|-------|
| 10075 | A | After 3 seconds press the button 44S5                               |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10076 | I | Speed is greater than 5km/h therefore all doors will remain closed  |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10077 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized   |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10088 | A | Reset PEA using switch 44S6   |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10090 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10099 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10100 | A | Activate any PEA   |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10101 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10112 | A | Reset PEA using switch 44S6  |  | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10113 | A | Close the door opened above manually                                   |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10114 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized      |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10125 | A | Press the red button 44S1 to make an emergency brake                   |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10126 | R | Contactor of 44K12 and 44K11 are de-energized                          |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10137 | A | Release the red button 44S1 for<br>emergency brake  | OK |   | Tshembhani Khosa -<br>446920 | 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 |   | Tshembhani Khosa -<br>446920 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0   | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0   | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10149 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0  | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10150 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10161 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10162 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                     |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10173 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10174 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10175 | A | Put the direction selector switch in<br>NEUTRAL Position               | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10186 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1   |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10187 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2   |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10188 | I | Traction Interlock Override TC1  |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10189 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position   |  | OK |   | Tshembhani Khosa -<br>446920 | 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 |   | Tshembhani Khosa -<br>446920 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0  |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0  |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0  |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0  |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10201 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position   |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0  |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tINotInhib = 0.0                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tInotInhib = 0.0                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tInotInhib = 0.0                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tInotInhib = 0.0                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10212 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                             | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10213 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                             | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10214 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10215 | A | Remove active cab on TC1   | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10216 | I | Traction Interlock TC2   | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10217 | A | Active Cab on TC2  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10218 | I | The direction selector switch 30A1.S2<br>should be in NEUTRAL position     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10219 | I | All doors should be closed   | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10220 | I | Emergency brake should be applied  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10221 | I | PEA override switch should be in<br>NORMAL position                        | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10222 | I | Traction Interlock override switch 31S1<br>should be in NORMAL position    | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10223 | I | Backup mode switch 27S1 should be in<br>NORMAL position                    | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |    |   |  |                              |       |
|-------|---|--|----|---|--|------------------------------|-------|
| 10224 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                         | OK |   |  | Tshembhani Khosa -<br>446920 | Train |
| 10225 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                         | OK |   |  | Tshembhani Khosa -<br>446920 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       | OK | 1 |  | Tshembhani Khosa -<br>446920 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       | OK | 1 |  | Tshembhani Khosa -<br>446920 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     | OK | 0 |  | Tshembhani Khosa -<br>446920 | Train |
| 10236 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position | OK |   |  | Tshembhani Khosa -<br>446920 | Train |
| 10237 | I | Emergency brake is released  | OK |   |  | Tshembhani Khosa -<br>446920 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  | OK | 1 |  | Tshembhani Khosa -<br>446920 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  | OK | 1 |  | Tshembhani Khosa -<br>446920 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 | OK | 1 |  | Tshembhani Khosa -<br>446920 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 | OK | 1 |  | Tshembhani Khosa -<br>446920 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 | OK | 1 |  | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10248 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10249 | I | Emergency brake is released  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10258 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10260 | I | Traction Interlock with Doors TC2  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10261 | A | Manually open any door   | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10262 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10273 | I | Simulate train speed of 5km/h contactor 61K2 is closed                 |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10274 | A | Energize point 41 of terminal block 93XT104_5 with 110V DC             |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10275 | R | The opened door will automatically close                               |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10282 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10286 | A | Activate any PEA   |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10287 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10288 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10289 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                           |       |
|-------|---|--|--|----|---|---------------------------|-------|
| 10300 | A | Reset PEA using switch 44S6  |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa - 446920 | Train |
| 10307 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10311 | A | Remove 110V DC from terminal block 93XT104_5 point 41                  |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10312 | A | Activate any PEA   |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10313 | R | Door is unlocked and can be manually opened                            |  | OK |   | Tshembhani Khosa - 446920 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Tshembhani Khosa - 446920 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10324 | A | Reset PEA using switch 44S6  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10325 | A | Close the door opened above manually                                   | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10326 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10337 | A | Press the red button 44S1 to make an<br>emergency brake                | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |   |    |   |                              |       |
|-------|---|---|----|---|------------------------------|-------|
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0                      | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0                      | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0                    | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10348 | A | Release the red button 44S1 for<br>emergency brake  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10349 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10351 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                 | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                                | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                                | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                                | OK | 1 | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10360 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10361 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10372 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10373 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |    |   |                              |       |
|-------|---|--|----|---|------------------------------|-------|
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10380 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10384 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10385 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10386 | A | Put the direction selector switch in<br>NEUTRAL position               | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              | OK | 0 | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10397 | I | Traction Interlock Override TC2  |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10398 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position         |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 1.0 |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 1.0 |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10409 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position           |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |

|       |   |  |  |    |   |                              |       |
|-------|---|--|--|----|---|------------------------------|-------|
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Tshembhani Khosa -<br>446920 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Tshembhani Khosa -<br>446920 | Train |
| 10420 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Tshembhani Khosa -<br>446920 | Train |
| 10421 | I | End of Test  |  | OK |   | Tshembhani Khosa -<br>446920 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
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## 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            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10002 | I    | Initial Conditions  |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10003 | I    | The Traction and Emergency test procedure must be completed prior to performing this test |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10004 | I    | Lamp 60H2 is OFF  |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10005 | I    | Master Controller is in Neutral position  |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10006 | I    | No Driving Direction selected   |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10007 | I    | Prepare train in LV ready with active cab on TC1  |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10008 | I    | Start of Test   |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10009 | I    | Deadman override TC1  |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                      |   | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10011 | A    | Put the override switch 60S1 to OVERRIDE position   |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10012 | R    | Lamp 60H2 is "ON" on the alarm module   |  | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10013 | R    | Verify that the Deadman override indication appears on the DDU screen                     |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanoverridr2 = 1.0                      |   | OK            | 1            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10015 | A    | Put the override switch 60S1 to NORMAL position   |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                      |   | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10017 | R    | Lamp 60H2 is OFF  |   | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |

|       |   |  |   |    |   |                                       |       |
|-------|---|--|---|----|---|---------------------------------------|-------|
| 10018 | I | Deadman by Master Controller TC1   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10020 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10022 | A | Release the Master Controller switch 30A1.S4   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10024 | I | Deadman by button 60S3 TC1   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10026 | A | Press the button 60S3 and hold it while reading variable below                           |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10028 | A | Release the button 60S3  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10030 | I | Deadman functional test TC1  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 0.0                           |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 0.0                        |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0                     |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10034 | A | Select Driving Direction to FORWARD  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnrb = 0.0                                     |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10036 | I | After 2.5 seconds buzzer starts beeping  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10037 | R | Lamp 60H1 is ON  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |  |   |    |   |                                       |       |
|-------|---|--|---|----|---|---------------------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 1.0                            |   | OK | 1 | Carol Gumedé -<br>425280              | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 1.0                               |   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10040 | I | A constant push on the button 60S3 or<br>Master controller will result in Emergency<br>brake |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10041 | A | Press and hold down the master controller<br>for about 2s                                    |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10042 | R | Lamp 60H1 is OFF   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10043 | R | No sound from buzzer   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10044 | A | Release master controller  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10045 | I | After 2.5 seconds buzzer starts beeping  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10046 | R | Lamp 60H1 is ON  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10047 | A | Press and hold the button 60S3 for about<br>2s   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10048 | R | Lamp 60H1 is OFF   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10049 | R | No sound from buzzer   |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10050 | A | Release Deadman button 60S3  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10051 | I | After 2.5 seconds buzzer starts beeping  |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10052 | R | After 5 seconds, emergency brake is<br>applied   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10053 | R | Verify on the DDU that the Emergency<br>brake by Deadman indication is ON                    |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 =<br>1.0                      |   | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0  |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10056 | A | Select Driving direction to NEUTRAL and<br>FORWARD again to reset the emergency<br>brake     |   | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0  |   | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |  |   |    |   |                                    |       |
|-------|---|--|---|----|---|------------------------------------|-------|
| 10058 | A | Press down the Master controller and hold                              |   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10059 | I | After 45s, emergency brake is applied                                  |    | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10060 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON |   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0      |   | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10062 | A | Release the Master controller  |   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10063 | A | Select the driving direction to NEUTRAL position                       |   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnsb = 0.0                      |   | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10065 | A | Remove active cab on TC1   |   | OK |   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10066 | I | Deadman Override TC2   |   | OK |   | Carol Gumede - 425280              | Train |
| 10067 | A | Active cab on TC2  |   | OK |   | Carol Gumede - 425280              | Train |
| 10068 | I | Deadman override switch 60S1 must be in NORMAL position                |   | OK |   | Carol Gumede - 425280              | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0      |   | OK | 0 | Carol Gumede - 425280              | Train |
| 10070 | A | Put the Deadman override switch 60S1 to OVERRIDE position              |  | OK |   | Carol Gumede - 425280              | Train |
| 10071 | R | Verify on the DDU that the Deadman override indication is ON           |   | OK |   | Carol Gumede - 425280              | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 1.0      |   | OK | 1 | Carol Gumede - 425280              | Train |
| 10073 | R | Lamp 60H2 is ON  |   | OK |   | Carol Gumede - 425280              | Train |
| 10074 | A | Put the override switch 60S1 in NORMAL position                        |   | OK |   | Carol Gumede - 425280              | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0      |   | OK | 0 | Carol Gumede - 425280              | Train |
| 10076 | R | Lamp 60H2 is OFF   |   | OK |   | Carol Gumede - 425280              | Train |

|       |   |  |   |    |   |                       |       |
|-------|---|--|---|----|---|-----------------------|-------|
| 10077 | I | Deadman by Master Controller TC2   |   | OK |   | Carol Gumedé - 425280 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10079 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |   | OK |   | Carol Gumedé - 425280 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 1.0                            |   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10081 | A | Release the master controller  |   | OK |   | Carol Gumedé - 425280 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10083 | I | Deadman by button 60S3 TC2   |   | OK |   | Carol Gumedé - 425280 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10085 | A | Press the button 60S3 and hold it while reading the variable below                       |   | OK |   | Carol Gumedé - 425280 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 1.0                            |   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10087 | A | Release the button 60S3  |   | OK |   | Carol Gumedé - 425280 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0                     |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10090 | I | Deadman functional test TC2  |   | OK |   | Carol Gumedé - 425280 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 0.0                           |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 0.0                        |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10093 | A | Select Driving Direction to FORWARD  |   | OK |   | Carol Gumedé - 425280 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                     |   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10095 | I | After 2.5 seconds buzzer starts beeping  |   | OK |   | Carol Gumedé - 425280 | Train |
| 10096 | R | lamp 60H1 is ON  |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |  |           |    |   |                       |       |
|-------|---|--|-----------|----|---|-----------------------|-------|
| 10097 | R | Verify on the DDU screen that the Deadman active indication is ON                      |           | OK |   | Carol Gumedé - 425280 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 1.0                      |           | OK | 1 | Carol Gumedé - 425280 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 1.0                         |           | OK | 1 | Carol Gumedé - 425280 | Train |
| 10100 | I | A constant push on the button 60S3 or Master controller will result in Emergency brake |           | OK |   | Carol Gumedé - 425280 | Train |
| 10101 | A | Press and hold down the master controller for about 2s                                 |           | OK |   | Carol Gumedé - 425280 | Train |
| 10102 | R | Lamp 60H1 is OFF   |           | OK |   | Carol Gumedé - 425280 | Train |
| 10103 | R | No sound from buzzer   |           | OK |   | Carol Gumedé - 425280 | Train |
| 10104 | A | Release the master controller  |           | OK |   | Carol Gumedé - 425280 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                   |           | OK | 0 | Carol Gumedé - 425280 | Train |
| 10106 | R | After 2.5 seconds buzzer starts beeping  |           | OK |   | Carol Gumedé - 425280 | Train |
| 10107 | R | After 5 seconds, emergency brake is applied  | <b>DM</b> | OK |   | Carol Gumedé - 425280 | Train |
| 10108 | R | Verify on the DDU screen that the emergency brake applied by Deadman indication is ON  |           | OK |   | Carol Gumedé - 425280 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 1.0                   |           | OK | 1 | Carol Gumedé - 425280 | Train |
| 10110 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake     |           | OK |   | Carol Gumedé - 425280 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                   |           | OK | 0 | Carol Gumedé - 425280 | Train |
| 10112 | A | Press down the Master controller and hold  |           | OK |   | Carol Gumedé - 425280 | Train |
| 10113 | R | After 45s, emergency brake is applied  | <b>DM</b> | OK |   | Carol Gumedé - 425280 | Train |
| 10114 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON                 |           | OK |   | Carol Gumedé - 425280 | Train |
| 10115 | R | Read Defined Variable [TT]   |           | OK | 0 | Carol Gumedé - 425280 | Train |

|       |   |  |  |    |  |                       |       |
|-------|---|--|--|----|--|-----------------------|-------|
|       |   | (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0           |  |    |  |                       |       |
| 10116 | A | Release the Master controller                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10117 | A | Select the driving direction to NEUTRAL position |  | OK |  | Carol Gumedé - 425280 | Train |
| 10118 | I | End of test                                      |  | OK |  | Carol Gumedé - 425280 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
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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            |              | Siphehile Mchunu - 491465 | Train   |
| 10002 | I    | Initial Conditions  |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10003 | I    | Train in Normal mode with LV ready  |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10004 | I    | Emergency brake is applied due to no direction selected on Train                    |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10005 | I    | The Blue button 27S5 must be released in TC1 and TC2                                |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10006 | I    | Start of Test   |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10007 | I    | Back-up Mode TC1  |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10008 | A    | Put the switch 27S1 in BACKUP position  |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10009 | R    | The TCMS is not available on the DDU screen   |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10010 | R    | Lamp 27H2 is ON   |  | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10011 | A    | Timer 60.0 S  |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10012 | R    | Both pantographs are raised   |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10013 | R    | Both HSCBs are closed   |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10014 | R    | Both ACUs are operational, sound can be heard from outside the train                |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10015 | R    | All four traction units are in operation, sound can be heard from outside the train |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10016 | R    | There is a gradual increase in the main pipe pressure                               |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10017 | R    | HVAC units are operational in all cars  |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10018 | R    | Emergency lighting is ON in all cars  |   | OK            |              | Siphehile Mchunu - 491465 | Train   |
| 10019 | I    | Emergency Disconnection TC1   |   | OK            |              | Siphehile Mchunu - 491465 | Train   |

|       |   |   |  |    |  |                            |       |
|-------|---|---|--|----|--|----------------------------|-------|
| 10020 | A | Push the button 27S5 to disconnect pantographs and open HSCBs |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10021 | R | Both pantographs are lower and HSCBs are open                 |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10022 | A | Release the button 27S5                                       |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10023 | I | Traction authorization TC1                                    |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10025 | R | TA is authorized  |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10026 | R | Lamp 31H1 is ON on the alarm module                           |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10027 | A | Put the direction selector switch in NEUTRAL position         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10028 | R | TA is not authorized  |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10029 | R | Lamp 31H1 is OFF on the alarm module                          |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10030 | I | Doors Operation TC1   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10031 | A | Press the auth button 50S5 to open left doors                 |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10032 | R | Check visually that all left doors are open                   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10033 | A | Press the auth button 50S6 to open right doors                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10034 | R | Check visually that all right doors are open                  |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10035 | A | Press the button 50S3 to close all the left doors             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10036 | R | Check visually that all left doors are closed                 |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10037 | A | Press the button 50S4 to close all right doors                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10038 | R | Check visually that all right doors are closed                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10039 | I | Emergency Brake TC1   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10040 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Siphesihle Mchunu - 491465 | Train |

|       |   |  |      |    |  |                           |       |
|-------|---|--|------|----|--|---------------------------|-------|
| 10041 | A | Apply emergency brake using the red button 44S1  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10042 | R | Emergency brake is applied, lamp 44H4 is ON  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10043 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10044 | A | Release the emergency brake button 44S1  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10045 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10046 | A | Apply emergency brake using by putting the Master Controller in Emergency brake position                         |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10047 | R | Emergency brake is applied, lamp 44H4 is ON  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10048 | A | Put the Master controller in OFF position  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10049 | A | Put the direction selector switch in NEUTRAL position  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10050 | A | Switch OFF the train by putting the switch 18S1 in OFF position  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10051 | A | Remove active cab on TC1   |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10052 | I | Back-up Mode TC2   |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10053 | R | Train is OFF   |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10054 | A | Active Cab on TC2  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10055 | A | Switch ON the train using battery contactor 18S1   |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10056 | R | Train start-up in Normal mode, the TCMS is available on the DDU screen   |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10057 | A | Put the backup mode switch 27S1 in BACKUP position   |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10058 | R | The TCMS is no longer available on the DDU screen  |      | OK |  | Siphehile Mchunu - 491465 | Train |
| 10059 | R | Lamp 27H2 is ON  | TCMS | OK |  | Siphehile Mchunu - 491465 | Train |

|       |   |   |  |    |  |                           |       |
|-------|---|---|--|----|--|---------------------------|-------|
| 10060 | A | Timer 60.0 S  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10061 | R | Both pantographs are raised   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10062 | R | Both HSCBs are closed   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10063 | R | Both ACUs are operational, sound can be heard from outside the train                |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10064 | R | All four traction units are in operation, sound can be heard from outside the train |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10065 | R | There is a gradual increase in the main pipe pressure                               |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10066 | R | HVAC units are operational in all cars  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10067 | R | Emergency lighting is ON in all cars  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10068 | I | Traction authorization TC2  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10069 | A | Put the direction selector switch in FORWARD position                               |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10070 | R | TA is authorized  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10071 | R | Lamp 31H1 is "ON" on the alarm module   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10072 | R | Relay 31K1 and 31K2 are energized   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10073 | A | Put the direction selector switch in NEUTRAL position                               |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10074 | R | TA is not authorized  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10075 | R | Lamp 31H1 is OFF on the alarm module  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10076 | R | Relay 31K1 and 31K2 are de-energized  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10077 | I | Doors Operation TC2   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10078 | A | Press the auth button 50S5 to open left doors                                       |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10079 | R | Check visually that all left doors are open   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10080 | A | Press the auth button 50S6 to open right doors                                      |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10081 | R | Check visually that all right doors are open  |  | OK |  | Siphehile Mchunu - 491465 | Train |

|       |   |  |  |    |  |                           |       |
|-------|---|--|--|----|--|---------------------------|-------|
| 10082 | A | Press the button 50S3 to close all the left doors  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10083 | A | Put the direction selector switch in FORWARD position  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10084 | R | Check visually that all left doors are closed  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10085 | A | Press the button 50S4 to close all right doors   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10086 | R | Check visually that all right doors are closed   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10087 | I | Emergency Brake TC2  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10088 | A | Put the direction selector switch in NEUTRAL and again in FORWARD position to reset the emergency brake          |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10089 | A | Apply emergency brake using the red button 44S1  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10090 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10091 | R | Release the emergency brake button 44S1  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10092 | A | Apply emergency brake using by putting the Master controller in Emergency brake position                         |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10093 | R | Emergency brake is applied, lamp 44H4 is ON  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10094 | A | Put the Master controller in OFF position  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10095 | R | Emergency brake is applied   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10096 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10097 | I | Emergency Disconnection TC2  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10098 | A | Push the button 27S5 to disconnect pantographs and open HSCBs  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10099 | R | Both pantographs are lower and HSCBs are open  |  | OK |  | Siphehile Mchunu - 491465 | Train |

|       |   |   |  |    |  |                               |       |
|-------|---|---|--|----|--|-------------------------------|-------|
| 10100 | A | Release the button 27S5   |  | OK |  | Siphesihle Mchunu -<br>491465 | Train |
| 10101 | A | Put the direction selector switch in NEUTRAL position           |  | OK |  | Siphesihle Mchunu -<br>491465 | Train |
| 10102 | A | Switch OFF the train by putting the switch 18S1 in OFF position |  | OK |  | Siphesihle Mchunu -<br>491465 | Train |
| 10103 | R | Train is OFF  |  | OK |  | Siphesihle Mchunu -<br>491465 | Train |
| 10104 | A | Restart the train in Normal mode                                |  | OK |  | Siphesihle Mchunu -<br>491465 | Train |
| 10105 | I | End of Test   |  | OK |  | Siphesihle Mchunu -<br>491465 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Safety Precautions  |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10003 | R    | The ERTMS Warning Signs are attached in both ends underneath  |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10004 | I    | No one should go near the Eurobalise Antennas during the test   |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10005 | I    | EVC Mechanical Check + Software Upload  |    | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10006 | I    | Upload the ODE software using the following procedure.  |    | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10007 | I    | Upload the COMET software using the following procedure.  |  | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10008 | A    | Record the serial number of the sim card insert the Sim Cards inside the GSM-R module MT1 and MT2:                |  | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10009 | R    | Serial number for sim card installed on MT1<br>Result Min : 99999<= x ()  |   | OK            | 89260420160520001716 | Nokuzola Mdluli - 491469 | Train   |
| 10010 | R    | Serial number for sim card installed on MT2<br>Result Min : 99999<= x ()  |   | OK            | 89260420160520001717 | Nokuzola Mdluli - 491469 | Train   |
| 10011 | I    | ERTMS Complete Test   |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10012 | I    | Perform the complete static test using the following procedure:   |  | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10013 | R    | Static Test is complete   |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10014 | I    | ERTMS Functional Test   |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10015 | I    | The functional test should only be performed once ALL the software has been loaded and the Complete Test is done. |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10016 | I    | ERTMS Bypass  |   | OK            |                      | Nokuzola Mdluli - 491469 | Train   |

|       |   |   |  |    |   |                          |       |
|-------|---|---|--|----|---|--------------------------|-------|
| 10017 | A | Activate cab TC1  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10018 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position   |  | OK |   | Nokuzola Mdluli - 491469 | 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 |   | Nokuzola Mdluli - 491469 | Train |
| 10020 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr1 = 1.0  |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr2 = 1.0  |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10022 | R | ERTMS bypass led 62H1 is "ON" on alarm module   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10023 | R | ERTMS HMI is OFF on TC1   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10024 | R | ERTMS EVC unit is OFF   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10025 | R | The cold movement detector is ON  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10026 | A | Put the direction selector switch in FORWARD position   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10027 | A | Put the Master controller in EMERGENCY BRAKE position   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10028 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0   |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10029 | A | Put Master controller in OFF position   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10030 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10031 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0   |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10032 | A | Put the direction selector switch in NEUTRAL position   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10033 | A | Put ERTMS isolation switch 62S1 in NORMAL position  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10034 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr1 = 0.0  |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr2 = 0.0  |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10036 | R | ERTMS bypass led 62H1 is OFF on alarm module                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10037 | R | ERTMS HMI is ON in TC1   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10038 | I | ERTMS Fault Monitoring (SPP M 62/13)   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10039 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10040 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10041 | A | Remove -62XP1_X06 connector  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10042 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcdc = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10046 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 0.0                     |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10047 | I | TEMPERATURE + FAN  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10048 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10049 | A | Apply a shunt between pins 42 and 60, pin 78 and 96 on -62XP1_X06 connector. |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10050 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 1.0                     |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10053 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10054 | A | Remove all jumpers and put back the connector -62XP1_X06                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |

|       |   |  |  |    |   |                          |       |
|-------|---|--|--|----|---|--------------------------|-------|
| 10055 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10056 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10057 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcdc = 1.0                    |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10058 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10059 | I | 110v/24v converters  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10060 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10061 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10062 | A | Remove one DC/DC power supply  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10063 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10064 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcdc = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10066 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10067 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10068 | A | Put back the DC/DC power supply  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10069 | I | INTERNAL CIRCUIT BREAKERS  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10070 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10071 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10072 | A | Open circuit breaker F01 and close all other circuit breakers from F02 - F20 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10074 | A | Close circuit breaker F01 on ERTMS - 62A1 module                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |

|       |   |   |  |    |   |                             |       |
|-------|---|---|--|----|---|-----------------------------|-------|
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 1.0                |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10076 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                        |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10077 | R | ERTMS EVC unit is OFF   |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10078 | A | Normalize everything inside LV4 and<br>leave all circuit breakers closed. |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10079 | I | End of Test   |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Kealeboga Mocwagole - 411330  | Train   |
| 10002 | I    | Initial Conditions   |   | OK            |              | Kealeboga Mocwagole - 411330  | Train   |
| 10003 | I    | Software must be updated in the OTDR with the latest baseline following below procedure            |  | OK            |              | Kealeboga Mocwagole - 411330  | Train   |
| 10004 | I    | Software must be updated in the CPM according to the latest baseline following the below procedure |  | OK            |              | Kealeboga Mocwagole - 411330  | Train   |
| 10005 | I    | Train should be OFF  |   | OK            |              | Kealeboga Mocwagole - 411330  | Train   |
| 10006 | I    | Start of Test  |   | OK            |              | Kealeboga Mocwagole - 411330  | Train   |
| 10007 | A    | Prepare the train with active cabin on TC1   |   | OK            |              | Kealeboga Mocwagole - 411330  | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0   |   | OK            | 1            | Paseka Ditlhakanyane - 491468 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0  |   | OK            | 2            | Paseka Ditlhakanyane - 491468 | Train   |
| 10010 | I    | Speedometer Test TC1   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10011 | A    | Remove Active Cabin on TC1 and activate it again   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10012 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10013 | R    | Speedometer lamp is ON   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10014 | A    | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10015 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10016 | A    | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10017 | I    | OTDR Reset   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |

|       |   |   |  |    |  |                               |       |
|-------|---|---|--|----|--|-------------------------------|-------|
| 10018 | I | When OTDR is resetting, the power supply LED will go OFF and ON             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10019 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr1 = 1.0                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10020 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr2 = 1.0                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10021 | R | OTDR is OFF   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10022 | I | During OTDR reset, the driver receives a warning about a loss in the OTDR.  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10023 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr1                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10024 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr2                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10025 | I | OTDR is ON and reset  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10026 | I | Data Recording  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10027 | I | Please note the time one the DDU screen before performing the actions below |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10028 | A | Put the Traction Interlock Switch 31S1 in OVERRIDE position                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10029 | A | Put the Traction Interlock Switch 31S1 in NORMAL position                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10030 | A | Pull any PEA on train   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10031 | A | Acknowledge the PEA using the button 54S3                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10032 | A | Reset PEA using Switch 44S6   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10033 | A | Put the emergency brake loop override switch 44S2 in BYPASS position        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10034 | A | Put the emergency brake loop override switch 44S2 in NORMAL position        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10035 | A | Open HSCB using 22S12   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10036 | A | Put the Direction Selector Switch in FORWARD position                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10037 | A | Put the Direction Selector Switch in NEUTRAL position                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |   |  |    |  |                               |       |
|-------|---|---|--|----|--|-------------------------------|-------|
| 10038 | A | Put the Direction Selector Switch in REVERSE position   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10039 | A | Put the Driving Mode Switch to COUPLE/WASH mode   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10040 | A | Before the next step verify that the HSCB is OPEN on the DDU - There is a risk of train movement      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10041 | A | Put the Master Controller in TRACTION position  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10042 | A | Put the Master Controller in BRAKE position   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10043 | A | Put the Master Controller in OFF position   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10044 | A | Put the Direction Selector Switch in NEUTRAL position   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10045 | A | Push the RED Emergency brake button 44S1  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10046 | A | Release Emergency brake button  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10047 | A | Put the Door authorization Selector Switch 50S7 in DRIVER position                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10048 | A | Press the right door authorization button 50S6  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10049 | A | Press the right door open button 50S2 again and then close the door the right doors using button 50S4 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10050 | A | Press the left door authorization button 50S5   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10051 | A | Press the left door open button 50S1 again and then close the door the left doors using button 50S3   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10052 | A | Put the Door authorization Selector Switch 50S7 in ERTMS position                                     |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10053 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10054 | A | Put the ERTMS isolation switch 62S1 in NORMAL position  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10055 | A | Note the time on the DDU  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |   |   |    |  |                               |       |
|-------|---|---|---|----|--|-------------------------------|-------|
| 10056 | A | Put the backup mode switch 27S1 in BACKUP position  |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10057 | A | Switch OFF the train on TC1 cab   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10058 | A | Put the backup Mode switch in NORMAL position   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10059 | A | Switch active cab to TC2  |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10060 | I | Events download   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10061 | A | Switch ON the train from TC2 side   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10062 | A | Note the time on the DDU  |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10063 | I | Use the time noted down before and after recording the data to check the events   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10064 | A | Connect to the OTDR via TCMS network and download the two latest events files. See the manual below   |    | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10065 | A | Connect to the CPM front face RJ45 port and download the latest events file. See the manual below   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10066 | I | Data Recorded Reading   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10067 | A | Use SAM5 build 81 software to read data recorded from the OTDR. For the CPM use SAM5 build 88   |   | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10069 | R | CAB TC1 ACTIVE: ON  |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10070 | R | CAB TC2 ACTIVE: OFF   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10071 | R | TRACTION INTERLOCK BYPASS: ON   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10072 | R | TRACTION INTERLOCK BYPASS: OFF  |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10073 | R | BRAKE APPLIED: ON   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10074 | R | PEA LOOP(OTDR): OFF   |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10075 | R | PEA LOOP(OTDR): ON  |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |  |    |                               |       |
|-------|---|--|----|-------------------------------|-------|
| 10076 | R | EMERGENCY BRAKE LOOP OVERRIDE: OFF   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10077 | R | EMERGENCY BRAKE LOOP OVERRIDE: ON  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10078 | R | FORWARD: ON  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10079 | R | TRACTION: ON   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10080 | R | BRAKE APPLIED: OFF   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10081 | R | NO BRAKE: ON   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10082 | R | NO BRAKE: OFF  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10083 | R | FORWARD: OFF   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10084 | R | TRACTION: OFF  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10085 | R | REVERSE: OFF   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10086 | R | REVERSE: ON  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10087 | R | EMERGENCY BRAKE TRAINLINE: OFF   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10088 | R | EMERGENCY BRAKE TRAINLINE: ON  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10089 | R | DOOR AUTH LEFT TRAINLINE: OFF  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10090 | R | DOOR AUTH LEFT TRAINLINE: ON   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10091 | R | DOOR AUTH RIGHT TRAINLINE: ON  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10092 | R | DOOR AUTH RIGHT TRAINLINE: OFF   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10093 | R | ERTMS BYPASS: OFF  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10094 | R | ERTMS BYPASS: ON   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10095 | R | BACKUP MODE: OFF   | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10096 | R | BACKUP MODE: ON  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10097 | R | CAB TC1 ACTIVE: OFF  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10098 | R | CAB TC2 ACTIVE: ON   | OK | Paseka Ditlhakanyane - 491468 | 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 | Paseka Ditlhakanyane - 491468 | Train |

|       |   |  |  |    |                               |       |
|-------|---|--|--|----|-------------------------------|-------|
|       |   | specific trainset folder TSXX>Results files> Train level.<br>XX=train number   |  |    |                               |       |
| 10100 | I | Speedometer Test TC2   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10101 | A | Remove active cab on TC2 and activate it again   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10102 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10103 | R | Speedometer lamp is ON   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10104 | A | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10105 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10106 | R | Speedometer lamp is ON   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10107 | A | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10108 | I | OTDR settings  |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10109 | A | Force [TT]<br>(MPU2)_REC_TravelledDistanceKm = 10.0  |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10110 | A | Force [TT]<br>(MPU1)_REC_TravelledDistanceKm = 10.0  |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10111 | R | The total distance on the odometer of the DDU screen is 10km   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10112 | A | Release [TT]<br>(MPU1)_REC_TravelledDistanceKm   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10113 | A | Release [TT]<br>(MPU2)_REC_TravelledDistanceKm   |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10114 | A | Configure the OTDR and Data plug according to the settings in the file below  |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10115 | R | Train UIC is set to 0120XXX  |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10116 | R | The Wheel diameter is set to 840mm on the DDU Driver screen  |  | OK | Paseka Ditlhakanyane - 491468 | Train |
| 10117 | I | End of Test  |  | OK | Paseka Ditlhakanyane - 491468 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Impi Tsela - 435647           | Train   |
| 10002 | I    | Initial Conditions  |   | OK            |              | Impi Tsela - 435647           | Train   |
| 10003 | I    | The air in the main should be at least 7.5bar                             |   | OK            |              | Impi Tsela - 435647           | Train   |
| 10004 | I    | Start of Test   |   | OK            |              | Impi Tsela - 435647           | Train   |
| 10005 | I    | Windscreen wiper TC1  |   | OK            |              | Impi Tsela - 435647           | Train   |
| 10006 | A    | Active cab on TC1   |   | OK            |              | Impi Tsela - 435647           | Train   |
| 10007 | A    | Load the software on the TC1 wiper  |    | OK            |              | Impi Tsela - 435647           | Train   |
| 10008 | I    | Washer tank is empty  |   | OK            |              | Impi Tsela - 435647           | Train   |
| 10009 | R    | The IOS for low level on water tank appears on the Driver's event list    |   | OK            |              | Impi Tsela - 435647           | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 0.0              |   | OK            | 0            | Impi Tsela - 435647           | Train   |
| 10011 | A    | Fill up the washer tank with clean water                                  |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10012 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 1.0              |   | OK            | 1            | Paseka Ditlhakanyane - 491468 | Train   |
| 10013 | R    | No IOS regarding low water level on Driver's event list                   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10014 | I    | This test is to verify that the Wiper is centred                          |  | OK            |              | Impi Tsela - 435647           | Train   |
| 10015 | A    | Put the wiper switch on Wash position                                     |   | OK            |              | Impi Tsela - 435647           | 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            |              | Impi Tsela - 435647           | Train   |
| 10018 | R    | The wiper is operating properly on intermittent position                  |   | OK            |              | Impi Tsela - 435647           | Train   |

|       |   |   |   |    |   |                               |       |
|-------|---|---|---|----|---|-------------------------------|-------|
| 10019 | A | Put the wiper switch to low speed position  |   | OK |   | Impi Tsela - 435647           | Train |
| 10020 | R | The wiper is operating properly on low speed  |   | OK |   | Impi Tsela - 435647           | Train |
| 10021 | A | Put the wiper switch to high speed position   |   | OK |   | Impi Tsela - 435647           | Train |
| 10022 | R | Verify that the wiper does not lie too much on the left or right  |   | OK |   | Impi Tsela - 435647           | Train |
| 10023 | A | Verify that the area wiped is at least as shown in the image attached   |  | OK |   | Impi Tsela - 435647           | Train |
| 10024 | A | Put the swiper switch on OFF position   |   | OK |   | Impi Tsela - 435647           | Train |
| 10025 | R | Wiper stops, no water is spraying on windscreen   |   | OK |   | Impi Tsela - 435647           | Train |
| 10026 | I | Mirrors TC1   |   | OK |   | Impi Tsela - 435647           | Train |
| 10027 | A | Login as a Maintainer ID: 70979080  |   | OK |   | Impi Tsela - 435647           | Train |
| 10028 | I | It is necessary to open and close each mirror several times to ensure that it is working properly                                       |   | OK |   | Impi Tsela - 435647           | Train |
| 10029 | A | Press the DOOR AUTH left button 50S5  |   | OK |   | Impi Tsela - 435647           | Train |
| 10030 | A | Turn the switch 70S10 to the left to open the left mirror   |   | OK |   | Impi Tsela - 435647           | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 1.0  |   | OK | 1 | Impi Tsela - 435647           | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0   |   | OK | 0 | Impi Tsela - 435647           | 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 |   | Paseka Ditlhakanyane - 491468 | Train |
| 10034 | R | Verify that there is no leak on the mirror's pneumatic piping   |   | OK |   | Impi Tsela - 435647           | Train |
| 10035 | A | Press 50S3 left door close button   |   | OK |   | Impi Tsela - 435647           | Train |
| 10036 | R | The mirror is properly closed   |   | OK |   | Impi Tsela - 435647           | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0  |   | OK | 0 | Impi Tsela - 435647           | Train |

|       |   |   |  |    |   |                               |       |
|-------|---|---|--|----|---|-------------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0   |  | OK | 0 | Impi Tsela - 435647           | Train |
| 10039 | A | Press the DOOR AUTH right button 50S6   |  | OK |   | Impi Tsela - 435647           | Train |
| 10040 | A | Turn the switch 70S10 to the right to open the right mirror   |  | OK |   | Impi Tsela - 435647           | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0  |  | OK | 0 | Impi Tsela - 435647           | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 1.0   |  | OK | 1 | Impi Tsela - 435647           | Train |
| 10043 | 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 |   | Paseka Ditlhakanyane - 491468 | Train |
| 10044 | R | Verify that there is no leak on the mirror's pneumatic piping   |  | OK |   | Impi Tsela - 435647           | Train |
| 10045 | A | Press 50S4 right door close button  |  | OK |   | Impi Tsela - 435647           | Train |
| 10046 | R | The mirror is properly closed   |  | OK |   | Impi Tsela - 435647           | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0  |  | OK | 0 | Impi Tsela - 435647           | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0   |  | OK | 0 | Impi Tsela - 435647           | Train |
| 10049 | A | Press the DOOR AUTH left button 50S5  |  | OK |   | Impi Tsela - 435647           | Train |
| 10050 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 1.0   |  | OK |   | Impi Tsela - 435647           | Train |
| 10051 | R | Left mirror is open   |  | OK |   | Impi Tsela - 435647           | Train |
| 10052 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 0.0   |  | OK |   | Impi Tsela - 435647           | Train |
| 10053 | R | Left mirror closes  |  | OK |   | Impi Tsela - 435647           | Train |
| 10054 | A | Press the DOOR AUTH right button 50S6   |  | OK |   | Impi Tsela - 435647           | Train |
| 10055 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 1.0  |  | OK |   | Impi Tsela - 435647           | Train |
| 10056 | R | Right mirror opens  |  | OK |   | Impi Tsela - 435647           | Train |
| 10057 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 0.0  |  | OK |   | Impi Tsela - 435647           | Train |

|       |   |  |   |    |  |                     |       |
|-------|---|--|---|----|--|---------------------|-------|
| 10058 | R | Right mirror closes  |   | OK |  | Impi Tsela - 435647 | Train |
| 10059 | A | Press the button 50S3 and 50S4 to reset door authorization                     |   | OK |  | Impi Tsela - 435647 | Train |
| 10060 | A | Release [TT] (MPU1)lo_sgl_tc1leftmirror  |   | OK |  | Impi Tsela - 435647 | Train |
| 10061 | A | Release [TT] (MPU1)lo_sgl_tc1rightmirror                                       |   | OK |  | Impi Tsela - 435647 | Train |
| 10062 | A | Isolate the valve H1.5/1 and H1.5/2  |   | OK |  | Impi Tsela - 435647 | Train |
| 10063 | R | Check that the left and right mirrors can be folded manually                   |   | OK |  | Impi Tsela - 435647 | Train |
| 10064 | A | Normalise the valve H1.5/1 and H1.5/2  |   | OK |  | Impi Tsela - 435647 | Train |
| 10065 | A | Login on the DDU screen using the driver's code 70787878                       |   | OK |  | Impi Tsela - 435647 | Train |
| 10066 | A | Go to Command Screen   |   | OK |  | Impi Tsela - 435647 | Train |
| 10067 | A | Authorise OPEN DOOR LEFT and RIGHT using the button 50S5 and 50S6 respectively |   | OK |  | Impi Tsela - 435647 | Train |
| 10068 | A | On the DDU Command screen, open the left mirror using the virtual button       |  | OK |  | Impi Tsela - 435647 | Train |
| 10069 | R | Left mirror opens  |   | OK |  | Impi Tsela - 435647 | Train |
| 10070 | A | Press virtual button to open right mirror                                      |  | OK |  | Impi Tsela - 435647 | Train |
| 10071 | R | Right mirror opens   |   | OK |  | Impi Tsela - 435647 | Train |
| 10072 | A | Press the button 50S3 and 50S4 to reset door authorization                     |   | OK |  | Impi Tsela - 435647 | Train |
| 10073 | R | Both mirrors close   |   | OK |  | Impi Tsela - 435647 | Train |
| 10074 | A | Remove active cab on TC1   |   | OK |  | Impi Tsela - 435647 | Train |
| 10075 | I | External visibility TC2  |   | OK |  | Impi Tsela - 435647 | Train |
| 10076 | I | Windscreen wiper TC2   |   | OK |  | Impi Tsela - 435647 | Train |
| 10077 | A | Active cab on TC2  |   | OK |  | Impi Tsela - 435647 | Train |
| 10078 | I | Load the software on the TC2 wiper   |  | OK |  | Impi Tsela - 435647 | Train |
| 10079 | I | Washer tank is empty   |   | OK |  | Impi Tsela - 435647 | Train |

|       |   |  |   |    |   |                               |       |
|-------|---|--|---|----|---|-------------------------------|-------|
| 10080 | R | The IOS for low level on water tank appears on the Driver's event list           |   | OK |   | Impi Tsela - 435647           | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2WasherLevel = 0.0                     |   | OK | 0 | Impi Tsela - 435647           | Train |
| 10082 | A | Fill up the washer tank with clean water   |   | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2WasherLevel = 1.0                     |   | OK | 1 | Paseka Ditlhakanyane - 491468 | Train |
| 10084 | R | No IOS regarding low water level on Driver's event list                          |   | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10085 | I | This test is to verify that the Wiper is centred                                 |    | OK |   | Impi Tsela - 435647           | Train |
| 10086 | A | Put the swiper switch on Wash position   |   | OK |   | Impi Tsela - 435647           | Train |
| 10087 | R | Water is spraying on the windscreen, the wiper is cleaning the windscreen        |   | OK |   | Impi Tsela - 435647           | Train |
| 10088 | A | Put the wiper switch to intermittent position                                    |   | OK |   | Impi Tsela - 435647           | Train |
| 10089 | R | The wiper is operating properly on intermittent position                         |   | OK |   | Impi Tsela - 435647           | Train |
| 10090 | A | Put the wiper switch to low speed position                                       |   | OK |   | Impi Tsela - 435647           | Train |
| 10091 | R | The wiper is operating properly on low speed                                     |   | OK |   | Impi Tsela - 435647           | Train |
| 10092 | A | Put the wiper switch to high speed position                                      |   | OK |   | Impi Tsela - 435647           | Train |
| 10093 | A | Verify that the wiper does not lie too much on the left or right                 |  | OK |   | Impi Tsela - 435647           | Train |
| 10094 | R | Verify that the area wiped is at least as shown in the image above               |   | OK |   | Impi Tsela - 435647           | Train |
| 10095 | A | Put the wiper switch on OFF position   |   | OK |   | Impi Tsela - 435647           | Train |
| 10096 | R | Wiper stops, no water is spraying on windscreen                                  |   | OK |   | Impi Tsela - 435647           | Train |
| 10097 | I | Mirrors TC2  |   | OK |   | Impi Tsela - 435647           | Train |
| 10098 | A | Login as a Driver. ID:70787878   |   | OK |   | Impi Tsela - 435647           | Train |
| 10099 | I | It is necessary to open and close each mirror several times to ensure that it is |   | OK |   | Impi Tsela - 435647           | Train |

|       |   |   |  |    |   |                               |       |
|-------|---|---|--|----|---|-------------------------------|-------|
|       |   | working properly  |  |    |   |                               |       |
| 10100 | A | Press the DOOR AUTH left button 50S5  |  | OK |   | Impi Tsela - 435647           | Train |
| 10101 | A | Turn the switch 70S10 to the left to open the left mirror   |  | OK |   | Impi Tsela - 435647           | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 1.0  |  | OK | 1 | Impi Tsela - 435647           | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0   |  | OK | 0 | Impi Tsela - 435647           | 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 |   | Paseka Ditlhakanyane - 491468 | Train |
| 10105 | R | Verify that there is no leak on the mirror's pneumatic piping   |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10106 | A | Press 50S3 left door close button   |  | OK |   | Impi Tsela - 435647           | Train |
| 10107 | R | The mirror is properly closed   |  | OK |   | Impi Tsela - 435647           | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0  |  | OK | 0 | Impi Tsela - 435647           | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0   |  | OK | 0 | Impi Tsela - 435647           | Train |
| 10110 | A | Press the DOOR AUTH right button 50S6   |  | OK |   | Impi Tsela - 435647           | Train |
| 10111 | A | Turn the switch 70S10 to the right to open the right mirror   |  | OK |   | Impi Tsela - 435647           | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0  |  | OK | 0 | Impi Tsela - 435647           | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 1.0   |  | OK | 1 | Impi Tsela - 435647           | 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 |   | Paseka Ditlhakanyane - 491468 | Train |
| 10115 | R | Verify that there is no leak on the mirror's pneumatic piping   |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10116 | A | Press 50S4 right door close button  |  | OK |   | Impi Tsela - 435647           | Train |
| 10117 | R | The mirror is properly closed   |  | OK |   | Impi Tsela - 435647           | Train |

|       |   |  |  |    |   |                     |       |
|-------|---|--|--|----|---|---------------------|-------|
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10120 | A | Press the DOOR AUTH left button 50S5   |  | OK |   | Impi Tsela - 435647 | Train |
| 10121 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror = 1.0                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10122 | R | Left mirror is open  |  | OK |   | Impi Tsela - 435647 | Train |
| 10123 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror = 0.0                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10124 | R | Left mirror closes   |  | OK |   | Impi Tsela - 435647 | Train |
| 10125 | A | Press the DOOR AUTH right button 50S6  |  | OK |   | Impi Tsela - 435647 | Train |
| 10126 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror = 1.0                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10127 | R | Right mirror opens   |  | OK |   | Impi Tsela - 435647 | Train |
| 10128 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror = 0.0                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10129 | R | Right mirror closes  |  | OK |   | Impi Tsela - 435647 | Train |
| 10130 | A | Release [TT] (MPU1)lo_sgl_tc2leftmirror  |  | OK |   | Impi Tsela - 435647 | Train |
| 10131 | A | Release [TT]<br>(MPU1)lo_sgl_tc2rightmirror                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10132 | A | Press the button 50S3 and 50S4 to reset door authorization                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10133 | A | Isolate the valve H1.5/1 and H1.5/2  |  | OK |   | Impi Tsela - 435647 | Train |
| 10134 | A | Check that the left and right mirrors can be folded manually                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10135 | A | Normalise the valve H1.5/1 and H1.5/2  |  | OK |   | Impi Tsela - 435647 | Train |
| 10136 | A | Login on the DDU screen using the driver's code 70787878                       |  | OK |   | Impi Tsela - 435647 | Train |
| 10137 | A | Go to Command Screen   |  | OK |   | Impi Tsela - 435647 | Train |
| 10138 | A | Authorise OPEN DOOR LEFT and RIGHT using the button 50S5 and 50S6 respectively |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |  |   |    |  |                               |       |
|-------|---|--|---|----|--|-------------------------------|-------|
| 10139 | A | On the DDU Command screen, open the left mirror using the virtual button |  | OK |  | Impi Tsela - 435647           | Train |
| 10140 | R | Left mirror opens  |   | OK |  | Impi Tsela - 435647           | Train |
| 10141 | A | Press virtual button to open right mirror                                |  | OK |  | Impi Tsela - 435647           | Train |
| 10142 | R | Right mirror opens   |   | OK |  | Impi Tsela - 435647           | Train |
| 10143 | A | Press the button 50S2 and 50S4 to close the left and right doors         |   | OK |  | Impi Tsela - 435647           | Train |
| 10144 | R | Both mirrors close   |   | OK |  | Impi Tsela - 435647           | Train |
| 10145 | I | End of test  |   | OK |  | Paseka Ditlhakanyane - 491468 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## Section 25 – Train Ground Communication

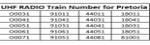
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### 25.1 Instructions list

### 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            |                      | Thandanani Makhanya - 463827 | Train   |
| 10002 | I    | GSMR - Functional Test TC1   |      | OK            |                      | Thandanani Makhanya - 463827 | 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            | 89260420160520000949 | Thandanani Makhanya - 463827 | Train   |
| 10004 | A    | Insert the SIM card into the GSMR Radio  |      | OK            |                      | Thandanani Makhanya - 463827 | 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            |                      | Gcobani Baliso - 480570      | Train   |
| 10006 | A    | On the GSMR HMI, verify radio is not faulty  |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10007 | A    | Active cab in TC1  |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10008 | I    | DDU-HMI Connection   |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10009 | A    | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                           |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10010 | R    | The time is the same (allowable difference of <10s)  |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10011 | I    | PACIS-HMI Connection   |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10012 | A    | Lift the GSMR handset  |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10013 | A    | Press the PA button on the GSMR HMI  |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10014 | R    | On the GSMR module PAI card, the Red and Ack LEDs light green  |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10015 | R    | The PA indication alarm sounds in all cars   |      | OK            |                      | Gcobani Baliso - 480570      | Train   |
| 10016 | A    | Press the PTT on the handset and speak into the handset microphone   |      | OK            |                      | Gcobani Baliso - 480570      | Train   |

|       |   |  |   |    |                      |                              |       |
|-------|---|--|---|----|----------------------|------------------------------|-------|
| 10017 | R | Text displayed on the HMI: "Talk!"   |   | OK |                      | Gcobani Baliso - 480570      | Train |
| 10018 | R | Your voice can be heard clearly in all the cars  |   | OK |                      | Gcobani Baliso - 480570      | Train |
| 10019 | I | UHF Radio Test TC1   |   | OK |                      | Mphato Mphahlele - 480716    | Train |
| 10020 | A | Enter each mission number below on the attached picture and press select on the UHF handheld   |  | OK |                      | Mphato Mphahlele - 480716    | Train |
| 10021 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible  |   | OK |                      | Mphato Mphahlele - 480716    | 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 |                      | Mphato Mphahlele - 480716    | Train |
| 10023 | R | All mission numbers on the above picture are tested ok   |   | OK |                      | Mphato Mphahlele - 480716    | Train |
| 10024 | I | GSMR - Functional Test TC2   |   | OK |                      | Mphato Mphahlele - 480716    | Train |
| 10025 | A | Active Cab in TC2  |   | OK |                      | Gcobani Baliso - 480570      | 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 | 89260420160520000950 | Thandanani Makhanya - 463827 | Train |
| 10027 | A | Insert the SIM card into the GSMR Radio  |   | OK |                      | Gcobani Baliso - 480570      | 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 |                      | Gcobani Baliso - 480570      | Train |
| 10029 | A | On the GSMR HMI, verify radio is not faulty  |   | OK |                      | Gcobani Baliso - 480570      | Train |
| 10030 | I | DDU-HMI Connection   |   | OK |                      | Gcobani Baliso - 480570      | Train |
| 10031 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time   |   | OK |                      | Gcobani Baliso - 480570      | Train |
| 10032 | R | The time is the same (allowable difference of <10s)  |   | OK |                      | Gcobani Baliso - 480570      | Train |
| 10033 | I | PACIS-HMI Connection   |   | OK |                      | Mphato Mphahlele - 480716    | Train |
| 10034 | A | Lift the GSMR handset  |   | OK |                      | Mphato Mphahlele - 480716    | Train |

| 10035                                | A     | Press the PA button on the GSMR HMI  |  | OK                                   |  | Mphato Mphahlele - 480716 | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
|--------------------------------------|-------|--|--|--------------------------------------|--|---------------------------|-------|-------|-------|--------|--------|-------|-------|--------|--------|-------|-------|--------|--------|-------|-------|--------|--------|-------|-------|--------|--------|-------|-------|--------|--------|----|--|-------------------------|-------|
| 10036                                | R     | On the GSMR module PAI card, the Red and Ack LEDs light green  |  | OK                                   |  | Mphato Mphahlele - 480716 | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10037                                | R     | The PA indication alarm sounds in all cars   |  | OK                                   |  | Mphato Mphahlele - 480716 | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10038                                | A     | Press the PTT on the handset and speak into the handset microphone   |  | OK                                   |  | Mphato Mphahlele - 480716 | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10039                                | R     | Text displayed on the HMI: "Talk!"   |  | OK                                   |  | Mphato Mphahlele - 480716 | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10040                                | R     | Your voice can be heard clearly in all the cars  |  | OK                                   |  | Mphato Mphahlele - 480716 | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10041                                | I     | UHF Radio Test TC2   |  | OK                                   |  | Mphato Mphahlele - 480716 | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10042                                | A     | Enter each mission number below on the attached picture and press select on the UHF handheld   | <table border="1"> <thead> <tr> <th colspan="4">UHF RADIO Train Numbers for Pretoria</th> </tr> </thead> <tbody> <tr> <td>00014</td> <td>91014</td> <td>480570</td> <td>480570</td> </tr> <tr> <td>00015</td> <td>91015</td> <td>480570</td> <td>480570</td> </tr> <tr> <td>00016</td> <td>91016</td> <td>480570</td> <td>480570</td> </tr> <tr> <td>00017</td> <td>91017</td> <td>480570</td> <td>480570</td> </tr> <tr> <td>00018</td> <td>91018</td> <td>480570</td> <td>480570</td> </tr> <tr> <td>00019</td> <td>91019</td> <td>480570</td> <td>480570</td> </tr> </tbody> </table> | UHF RADIO Train Numbers for Pretoria |  |                           |       | 00014 | 91014 | 480570 | 480570 | 00015 | 91015 | 480570 | 480570 | 00016 | 91016 | 480570 | 480570 | 00017 | 91017 | 480570 | 480570 | 00018 | 91018 | 480570 | 480570 | 00019 | 91019 | 480570 | 480570 | OK |  | Gcobani Baliso - 480570 | Train |
| UHF RADIO Train Numbers for Pretoria |       |  |  |                                      |  |                           |       |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 00014                                | 91014 | 480570   | 480570   |                                      |  |                           |       |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 00015                                | 91015 | 480570   | 480570   |                                      |  |                           |       |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 00016                                | 91016 | 480570   | 480570   |                                      |  |                           |       |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 00017                                | 91017 | 480570   | 480570   |                                      |  |                           |       |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 00018                                | 91018 | 480570   | 480570   |                                      |  |                           |       |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 00019                                | 91019 | 480570   | 480570   |                                      |  |                           |       |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10043                                | R     | The Radio displays the selected number eg "D 9104" and the network bars are visible  |  | OK                                   |  | Gcobani Baliso - 480570   | 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                                   |  | Gcobani Baliso - 480570   | Train |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |       |       |        |        |    |  |                         |       |
| 10045                                | R     | All mission numbers on the above picture are tested ok   |  | OK                                   |  | Gcobani Baliso - 480570   | 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            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10002 | I    | Software upload   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10003 | I    | Use the below procedure to install the software on the Netbox(M1)   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10004 | A    | <ul style="list-style-type: none"> <li>-Open the NBX (64Q1) circuit breaker</li> <li>-Insert the programmed USB into the slot</li> <li>-Close the NBX (64Q1) circuit breaker</li> <li>-Device is on and software upload begins</li> </ul> Upload is complete when all LEDs on rows A and C are steady, on and green as the image attached |    | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10005 | I    | Netbox configuration check  |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10006 | A    | Perform the attached procedure to configure the Netbox (M1)   |  | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10007 | R    | The Netbox is configured correctly  |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10008 | R    | The time and date on the DDU is correct - if not restart the train and verify again   |   | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |

## Section 26 – Traction Converter

---

### 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            |              | Amanda Ntuli - 526239 | Train   |
| 10002 | I    | Initial Conditions  |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10003 | I    | Train is prepared with High voltage   |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10004 | I    | Master controller is in OFF position  |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10005 | I    | All traction units are in black colour on the DDU maintenance screen                              |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10006 | I    | Start of Test   |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10007 | A    | Put the driving selector switch in FORWARD position   |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10008 | R    | Check on the DDU that all traction units are in FWD position                                      |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10009 | A    | Put the driving selector switch in REVERSE position   |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10010 | R    | Check on the DDU that all traction units are in REV position                                      |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10011 | A    | Put the driving selector switch in NEUTRAL position   |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10012 | I    | Traction Fault and reset  |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10013 | A    | Open HSCB using button 22S12  |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10014 | A    | Open the circuit breaker 33Q3 in M4 car   |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10015 | R    | Traction unit of M4 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10016 | A    | Close the circuit breaker 33Q3  |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10017 | A    | Press the DDU virtual button RESET TRACTION FAULTS  |   | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10018 | R    | Traction unit for M4 is back in service, the IOS generated above has disappeared                  |   | OK            |              | Amanda Ntuli - 526239 | Train   |

|       |   |   |   |    |  |                       |       |
|-------|---|---|---|----|--|-----------------------|-------|
| 10019 | A | Open the circuit breaker 33Q3 in M1 car   |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10020 | R | Traction unit of M1 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Amanda Ntuli - 526239 | Train |
| 10021 | A | Close circuit breaker 33Q3 in M1 car  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10022 | A | Press the DDU virtual button RESET TRACTION FAULTS  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10023 | R | Traction unit for M1 is back in service, the IOS generated above has disappeared                  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10024 | A | Open the circuit breaker 33Q3 in M2 car   |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10025 | R | Traction unit of M2 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Amanda Ntuli - 526239 | Train |
| 10026 | A | Close the circuit breaker 33Q3 in M2 car  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10027 | A | Press the DDU virtual button RESET TRACTION FAULTS  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10028 | R | Traction unit for M2 is back in service, the IOS generated above has disappeared                  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10029 | A | Open the circuit breaker 33Q3 in M3 car   |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10030 | R | Traction unit of M3 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10031 | A | Close the circuit breaker 33Q3 in M3 car  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10032 | A | Press the DDU virtual button RESET TRACTION FAULTS  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10033 | R | Traction unit for M3 is back in service, the IOS generated above has disappeared                  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10034 | A | Close HSCBs using button 22S11  |   | OK |  | Amanda Ntuli - 526239 | Train |
| 10035 | I | End of Test   |   | OK |  | Amanda Ntuli - 526239 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
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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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Front camera footage TC1  |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | A    | Active Cab on TC1 and Login as Driver: 70787878                   |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10004 | A    | Press and hold the FRONT EVENT BUTTON 66S1 on TC1                 |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 1.0 |   | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 1.0 |   | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |
| 10007 | R    | The FRONT EVENT button lamp 66S1 is ON                            |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | A    | Release the button 66S1   |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |   | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |   | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10011 | R    | The FRONT EVENT button lamp 66S1 is OFF                           |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10012 | A    | On the DDU screen, check if the Camera is correctly adjusted      |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10013 | A    | The picture on the DDU should be as the picture attached.         |  | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10014 | I    | Reverse direction front camera functional test TC1                |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10015 | A    | Put the direction selector switch in REVERSE position             |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10016 | R    | CCTV footage of TC2 front camera appears on the DDU               |   | OK            |              | Nokuzola Mdluli - 491469 | Train   |

|       |   |  |   |    |   |                          |       |
|-------|---|--|---|----|---|--------------------------|-------|
| 10017 | A | Put the direction selector switch in NEUTRAL position          |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10018 | R | CCTV footage of TC2 front camera does not appear on the DDU    |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10019 | A | Remove active cab on TC1                                       |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10020 | I | Front camera footage TC2                                       |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10021 | A | Active cab on TC2 and Login as Driver: 70787878                |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10022 | A | Press and hold the FRONT EVENT BUTTON 66S1 on TC2              |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR1 = 1.0 |   | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR2 = 1.0 |   | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10025 | R | The FRONT EVENT button lamp 66S1 is ON                         |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10026 | A | Release the button 66S1  |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |   | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |   | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10029 | R | The FRONT EVENT button lamp 66S1 is OFF                        |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10030 | A | On the DDU screen, check if the Camera is correctly adjusted   |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10031 | A | The picture on the DDU should be as the picture attached.      |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10032 | I | Reverse direction front camera functional test TC2             |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10033 | A | Put the direction selector switch in REVERSE position          |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10034 | R | CCTV footage of TC1 front camera appears on the DDU            |   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10035 | A | Put the direction selector switch in NEUTRAL position          |   | OK |   | Nokuzola Mdluli - 491469 | Train |

|       |   |  |   |    |  |                          |       |
|-------|---|--|---|----|--|--------------------------|-------|
| 10036 | R | CCTV footage of TC1 front camera does not appear on the DDU  |   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10037 | I | NVR Recording  |   | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Carol Gumede - 425280    | Train |
| 10039 | R | The TC1 NVR is locked, and the HD LED is OFF   |   | OK |  | Carol Gumede - 425280    | Train |
| 10040 | R | The TC2 NVR is locked, and the HD LED is OFF   |   | OK |  | Carol Gumede - 425280    | Train |
| 10041 | A | Using the procedure attached, confirm that both NVRs are recording video data  |  | OK |  | Carol Gumede - 425280    | Train |
| 10042 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR1   |   | OK |  | Carol Gumede - 425280    | Train |
| 10043 | R | save the screenshot as TSXX_NVR1   |   | OK |  | Carol Gumede - 425280    | Train |
| 10044 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR2   |   | OK |  | Carol Gumede - 425280    | Train |
| 10045 | R | Save the screenshot as TSXX_NVR2   |   | OK |  | Carol Gumede - 425280    | Train |
| 10046 | A | Take the two saved screenshot and put them in a folder named "TSXX_NVR." Then save the folder to "teams" channel (shift reports) under a specific trainset folder TSXX>Results files> Train level  |   | OK |  | Carol Gumede - 425280    | Train |
| 10047 | I | End of Test  |   | OK |  | Carol Gumede - 425280    | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Mlungisi Madela - 529927 | 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            |              | Mlungisi Madela - 529927 | 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            |              | Mlungisi Madela - 529927 | Train   |
| 10010 | A    | Please note any cameras showing green strips or unclear images should be updated settings using the attached procedure  |  | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10011 | R    | The Saloon cameras on TC1 have been adjusted according to image above.  |   | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10012 | R    | The Saloon cameras on M4 have been adjusted according to image above.   |   | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10013 | R    | The Saloon cameras on M1 have been adjusted according to image above.   |   | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10014 | R    | The Saloon cameras on M2 have been adjusted according to image above.   |   | OK            |              | Mlungisi Madela - 529927 | Train   |

|       |   |   |  |    |   |                          |       |
|-------|---|---|--|----|---|--------------------------|-------|
| 10015 | R | The Saloon cameras on M3 have been adjusted according to image above.                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10016 | R | The Saloon cameras on TC2 have been adjusted according to image above.                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10017 | I | Mission Number Display  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10018 | A | Active Cab in TC1   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10019 | A | Login as a driver, ID: 70787878   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10020 | A | Enter the mission 8100  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10021 | R | Check that the TC1 and TC2 front external displays are showing the mission number 8100. |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10022 | I | Public Announcements TC1  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10025 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10026 | R | Green lamp 54H2 is ON   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10027 | R | A beep sound can be heard in all saloon speakers  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10028 | R | On Driver's screen (Home Page), PA activation message is displayed                      |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10029 | A | Press the button 54S4 and hold it while talking via the microphone                      |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10030 | I | It is necessary to go to each and every speaker to verify sound is coming out           |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10031 | R | Announcement can be heard in saloon speakers of TC1                                     |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10032 | R | Announcement can be heard in saloon speakers of M4                                      |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10033 | R | Announcement can be heard in saloon speakers of M1                                      |  | OK |   | Mlungisi Madela - 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 deactivate 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 |   | Siphesihle Mchunu - 491465 | Train |
| 10064 | R | Green lamp 54H1 is blinking   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10065 | R | A beep can be heard in TC2 cab  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10066 | R | Green lamp 54H1 is blinking in TC2 cab  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10067 | R | Cab to Cab communication is Active on DDU driver's screen                               |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10068 | A | Accept Cab to cab communication request in TC2 by pulsing switch 54S1 to the left       |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10069 | R | Green lamp 54H1 is ON (steady) on TC2   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10070 | A | Press and hold button 54S4 to initiate communication in TC1 and talk on the microphone  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10071 | R | Sound can be heard on TC2 cab speakers  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10072 | A | Press and hold button 54S4 in TC2 and talk on the microphone                            |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10073 | R | Sound can be heard on TC1 cab speakers  |  | OK |   | Siphesihle Mchunu - 491465 | Train |

|       |   |  |   |    |   |                           |       |
|-------|---|--|---|----|---|---------------------------|-------|
| 10074 | A | Pulse the switch 54S1 to the left on TC1 to de-activate cab to cab communication   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10075 | R | Green lamp 54H1 is OFF on both TC1 and TC2   |   | OK |   | Siphehile Mchunu - 491465 | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR1 = 1.0   |   | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 1.0   |   | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10079 | R | Cab-Cab is activated   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10080 | A | On the driver's screen select the "Public Address" virtual button to end communication   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0   |   | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0   |   | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10083 | R | Cab-Cab is de-activated  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10084 | I | Cab to Cab Communication TC2   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0   |   | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0   |   | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10087 | A | Pulse the switch 54S1 to the left to activate cab to cab communication   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10088 | R | Green lamp 54H1 is blinking  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10089 | R | A beep can be heard in TC1 cab   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10090 | R | Green lamp 54H1 is blinking in TC1 cab   |   | OK |   | Siphehile Mchunu - 491465 | Train |

|       |   |  |   |    |   |                            |       |
|-------|---|--|---|----|---|----------------------------|-------|
| 10091 | R | Cab to Cab communication is Active on DDU driver's screen  |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10092 | A | Accept Cab to cab communication request in TC1 by pulsing switch 54S1 to the left  |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10093 | R | Green lamp 54H1 is ON (steady) on TC1  |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10094 | A | Press and hold button 54S4 to initiate communication in TC2 and talk on the microphone   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10095 | R | Sound can be heard on TC1 cab speakers   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10096 | A | Press and hold button 54S4 in TC1 and talk on the microphone   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10097 | R | Sound can be heard on TC2 cab speakers   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10098 | A | Pulse the switch 54S1 to the left on TC2 to de-activate cab to cab communication   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10099 | R | Green lamp 54H1 is OFF on both TC1 and TC2   |   | OK |   | Siphesihle Mchunu - 491465 | 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 |   | Siphesihle Mchunu - 491465 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 1.0  |   | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 1.0  |   | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10103 | R | Cab-Cab is activated   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10104 | A | On the driver's screen select the "Public Address" virtual button to end communication   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0  |   | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0  |   | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10107 | R | Cab-Cab is de-activated  |   | OK |   | Siphesihle Mchunu - 491465 | Train |

|       |   |   |   |    |   |                           |       |
|-------|---|---|---|----|---|---------------------------|-------|
| 10108 | I | Ventilation Rack TC1  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10109 | A | Follow the instruction below o how to test the ventilation rack               |    | OK |   | Siphehile Mchunu - 491465 | Train |
| 10110 | R | All three fans of the ventilation rack are working                            |   | OK |   | Siphehile Mchunu - 491465 | 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_tc1pealooop = 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_tc1pealoo = 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 =<br>0.0  |   | OK | 0 | Mlungisi Madela -<br>529927   | Train |
| 10148 | A | Pull the PEA   |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10149 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI  |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10150 | R | A CCTV footage of TC1 camera 1 and 2<br>can be seen on the Driver's screen   |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10151 | A | On the driver's screen (image attached)<br>select the "Passenger Alarm" virtual<br>button. (NOTE variables below should be<br>read immediately -they last for 2 seconds) |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 =<br>1.0  |   | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 =<br>1.0  |   | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10154 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone  |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10155 | R | The person in the cabin can be heard from<br>the PEI speaker   |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10156 | A | Respond by talking back via the PEI  |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10157 | R | Communication is stabile between PEI<br>and Driver cab   |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10158 | A | On the driver's screen select the<br>"Passenger Alarm" virtual button to end<br>communication  |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 =<br>0.0  |   | OK | 0 | Mlungisi Madela -<br>529927   | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 =<br>0.0  |   | OK | 0 | Mlungisi Madela -<br>529927   | Train |
| 10161 | I | Passenger Emergency Alarm 3 (PEA<br>44S13) on TC1  |   | OK |   | Mlungisi Madela -<br>529927   | Train |
| 10162 | A | Pull the PEA   |   | OK |   | Mlungisi Madela -<br>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 |  | Siphesihle Mchunu - 491465 | Train |
| 10299 | A | Pull the PEA   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10300 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10301 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10302 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10303 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10304 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10305 | A | Respond by talking back via the PEI                                    |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10306 | R | Communication is established between PEI and Driver cab                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10307 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Siphesihle Mchunu - 491465 | 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] (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] (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 |

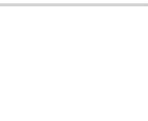
|       |   |   |    |   |                          |       |
|-------|---|---|----|---|--------------------------|-------|
| 10468 | R | Read Defined Variable [TT] (MPU1) Li_UBK_M3StateResetPea = 0.0          | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10469 | R | All M3 PEAs are reset   | OK |   | Mlungisi Madela - 529927 | Train |
| 10470 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC2                          | OK |   | Mlungisi Madela - 529927 | Train |
| 10471 | A | Pull the PEA  | OK |   | Mlungisi Madela - 529927 | Train |
| 10472 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              | OK |   | Mlungisi Madela - 529927 | Train |
| 10473 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | OK |   | Mlungisi Madela - 529927 | Train |
| 10474 | A | Press the button 54S3 to acknowledge PEA communication request          | OK |   | Mlungisi Madela - 529927 | Train |
| 10475 | A | Press and hold button 54S4 on TC1 and talk on the microphone            | OK |   | Mlungisi Madela - 529927 | Train |
| 10476 | R | The person in the cabin can be heard from the PEI speaker               | OK |   | Mlungisi Madela - 529927 | Train |
| 10477 | A | Respond by talking back via the PEI                                     | OK |   | Mlungisi Madela - 529927 | Train |
| 10478 | R | Communication is established between PEI and Driver cab                 | OK |   | Mlungisi Madela - 529927 | Train |
| 10479 | A | Press the button 54S3 to end PEA communication                          | OK |   | Mlungisi Madela - 529927 | Train |
| 10480 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC2                          | OK |   | Mlungisi Madela - 529927 | Train |
| 10481 | A | Pull the PEA  | OK |   | Mlungisi Madela - 529927 | Train |
| 10482 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              | OK |   | Mlungisi Madela - 529927 | Train |
| 10483 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | OK |   | Mlungisi Madela - 529927 | Train |
| 10484 | A | Press the button 54S3 to acknowledge PEA communication request          | OK |   | Mlungisi Madela - 529927 | Train |
| 10485 | A | Press and hold button 54S4 on TC1 and talk on the microphone            | OK |   | Mlungisi Madela - 529927 | Train |
| 10486 | R | The person in the cabin can be heard from the PEI speaker               | OK |   | Mlungisi Madela - 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 |   | Siphehile Mchunu - 491465 | Train |
| 10546 | I | This is a quick test to verify that all PEAs work and can be reset from TC2   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10547 | A | Insert Driver's Key and turn to ON position   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10548 | A | Login as Driver using the code 70787878   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10549 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 0.0   |   | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10550 | R |   |    | OK |   | Siphehile Mchunu - 491465 | Train |
| 10551 | A | Pull all the PEAs on Train  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10552 | R |   |    | OK |   | Siphehile Mchunu - 491465 | Train |
| 10553 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 1.0   |   | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10554 | R |   |  | OK |   | Siphehile Mchunu - 491465 | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10556 | R | Lamp 44H1 is ON   |  | OK |   | Siphehile Mchunu - 491465 | Train |
| 10557 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealoo = 1.0   |   | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10558 | A | Press and hold the button 54S4 while talking on the microphone  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10559 | R | The person in the cabin can be heard from the PEI speaker   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10560 | I | It is not necessary to perform step below for all PEAs, one PEA is sufficient   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10561 | A | Respond by talking back via the PEI   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10562 | R | Communication is established between PEI and Driver cab   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10563 | A | Reset all PEAs at using switch 44S6   |   | OK |   | Siphehile Mchunu - 491465 | Train |

|       |   |  |  |    |   |                            |       |
|-------|---|--|--|----|---|----------------------------|-------|
| 10564 | R | All PEAs are reset, and a click sound can be heard while PEA returns to its normal state |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10565 | A | Open and close doors left and right doors  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10566 | R | All doors are closed and in blue colour on DDU   |   | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10567 | R | Lamp 44H1 is OFF   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10568 | R | No message on Pacis displays   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10569 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealooop = 0.0                                |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10570 | R | No CCTV footage showing on Driver's screen   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10571 | A | On the Event screen, check that there are no IOS related to doors or PEAs recorded       |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10572 | R | After test is completed, the DDU PEA screen should be as shown                           |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10573 | A | Repeat this test for 4 times   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10574 | R | 1st attempt passed   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10575 | R | 2nd attempt passed   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10576 | R | 3rd attempt passed   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10577 | R | 4th attempt passed   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10578 | I | Public Announcements TC2   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10579 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                               |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10580 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                               |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10581 | A | Pulse the switch 54S1 to the right to activate PA announcement                           |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10582 | R | Green lamp 54H2 is ON  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10583 | R | A beep sound can be heard in all saloon speakers   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10584 | R | On Driver's screen (Home Page), PA activation message is displayed                       |  | OK |   | Siphesihle Mchunu - 491465 | Train |

|       |   |   |   |    |   |                           |       |
|-------|---|---|---|----|---|---------------------------|-------|
| 10585 | A | Press the button 54S4 and hold it while talking via the microphone  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10586 | R | Announcement can be heard in saloon speakers of all cars  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10587 | A | Release the button 54S4   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10588 | A | Talk on the microphone  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10589 | R | No sound can be heard in all cars   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10590 | A | Pulse the switch 54S1 to the right to deactivate PA announcement  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10591 | A | Green lamp 54H2 is OFF  |  | OK |   | Siphehile Mchunu - 491465 | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10593 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 1.0  |   | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10594 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 1.0  |   | OK | 1 | Siphehile Mchunu - 491465 | Train |
| 10595 | R | Green lamp 54H2 is ON   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10596 | R | PA announcement is activated  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10597 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10598 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0  |   | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10599 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0  |   | OK | 0 | Siphehile Mchunu - 491465 | Train |
| 10600 | R | Green lamp 54H2 is OFF  |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10601 | I | PA announcement is de-activated   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10602 | A | Press the button 54S4 and hold it while talking on the microphone   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10603 | R | Sound cannot be heard in all speakers   |   | OK |   | Siphehile Mchunu - 491465 | Train |
| 10604 | A | Release the button 54S4   |   | OK |   | Siphehile Mchunu - 491465 | Train |

|       |   |  |   |    |  |                            |       |
|-------|---|--|---|----|--|----------------------------|-------|
| 10605 | A | Remove active cab on TC1   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10606 | A | Pulse the switch 54S1 to the right to activate PA announcement   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10607 | R | Green lamp 54H2 is OFF   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10608 | R | No PA announcement activation showing on the Driver's screen   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10609 | I | Ventilation Rack TC2   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10610 | A | Follow the instruction below o how to test the ventilation rack  |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10611 | R | All three fans of the ventilation rack are working   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10612 | I | Pacis audio and displays test  |   | OK |  | Siphesihle Mchunu - 491465 | 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 |  | Siphesihle Mchunu - 491465 | Train |
| 10614 | A | Launch the Pacis Test from the DDU   |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10615 | R | All saloon speakers and displays are working on train  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10616 | A | Stop the Pacis test  |   | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10617 | I | End of Test  |   | OK |  | Siphesihle Mchunu - 491465 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Train Normalisation   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | A    | Whilst checking the LV cubicles in each Car, also check the dataplug ground cables if they are secured and tightened                      |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | TC1   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | R    | ALL LV1.1 connectors are connected and tightly secured with screws  |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | R    | ALL LV2.1 connectors are connected and tightly secured with screws  |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | R    | ALL LV7 connectors are connected and tightly secured with screws  |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | R    | ALL HVAC Cubicle connectors are connected and tightly secured with screws   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10009 | R    | ALL underframe connectors are connected and tightly secured with screws   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10010 | R    | ALL inter-car connectors are connected and tightly secured with screws  |      | OK            |              | Siphesihle Mchunu - 491465 | 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            |              | Siphesihle Mchunu - 491465 | Train   |
| 10012 | R    | The values of the HVAC sensor grades are the same   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10013 | I    | M4  |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10014 | R    | ALL LV3 connectors are connected and tightly secured with screws  |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10015 | R    | ALL LV6 connectors are connected and tightly secured with screws  |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |

|       |   |   |  |    |  |                           |       |
|-------|---|---|--|----|--|---------------------------|-------|
| 10016 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10017 | R | ALL underframe connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10018 | R | ALL inter-car connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | 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 |  | Siphehile Mchunu - 491465 | Train |
| 10020 | R | The values of the HVAC sensor grades are the same   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10021 | I | M1  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10022 | R | ALL LV3 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10023 | R | ALL LV6 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10024 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10025 | R | ALL underframe connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10026 | R | ALL inter-car connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | 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 |  | Siphehile Mchunu - 491465 | Train |
| 10028 | R | The values of the HVAC sensor grades are the same   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10029 | I | M2  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10030 | R | ALL LV3 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10031 | R | ALL LV4 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10032 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |

|       |   |   |  |    |  |                           |       |
|-------|---|---|--|----|--|---------------------------|-------|
| 10033 | R | ALL underframe connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10034 | R | ALL inter-car connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | 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 |  | Siphehile Mchunu - 491465 | Train |
| 10036 | R | The values of the HVAC sensor grades are the same   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10037 | I | M3  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10038 | R | ALL LV3 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10039 | R | ALL LV6 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10040 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10041 | R | ALL underframe connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10042 | R | ALL inter-car connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | 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 |  | Siphehile Mchunu - 491465 | Train |
| 10044 | R | The values of the HVAC sensor grades are the same   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10045 | I | TC2   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10046 | R | ALL LV1.2 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10047 | R | ALL LV2.2 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10048 | R | ALL LV7 connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10049 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |

|       |   |   |  |    |  |                           |       |
|-------|---|---|--|----|--|---------------------------|-------|
| 10050 | R | ALL underframe connectors are connected and tightly secured with screws   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10051 | R | ALL inter-car connectors are connected and tightly secured with screws  |  | OK |  | Siphehile Mchunu - 491465 | 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 |  | Siphehile Mchunu - 491465 | Train |
| 10053 | R | The values of the HVAC sensor grades are the same   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10054 | I | Brake Test  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10055 | A | Prepare the train in high voltage with active cab on TC1  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10056 | A | On the DDU test screen, run the BRAKE TEST by following the instructions on the screen  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10057 | R | After the BRAKE TEST is complete, all cars have passed  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10058 | A | Shut down the train by putting the battery contactor 18S1 in OFF position   |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10059 | I | Reduced Power Test  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10060 | A | Prepare the train in high voltage with active cab on TC1  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10061 | A | Set the Driving Mode Switch (30S1) to "DEPOT" position.   |  | OK |  | Siphehile Mchunu - 491465 | 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 |  | Siphehile Mchunu - 491465 | Train |
| 10063 | A | Select a running direction (Forward or Reverse).  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10064 | I | REMEMBER TO PRESS THE DEAD MAN BUTTON OCCASIONALLY  |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10065 | R | Check that all the conditions on the screen are satisfied (green box to the right of each condition)                                      |  | OK |  | Siphehile Mchunu - 491465 | Train |
| 10066 | A | Select RPT for M4 car   |  | OK |  | Siphehile Mchunu - 491465 | Train |

|       |   |  |  |    |          |                           |       |
|-------|---|--|--|----|----------|---------------------------|-------|
| 10067 | R | RPT for M4 test successful   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10068 | A | Close the HSCB   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10069 | A | Select RPT for M1car   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10070 | R | RPT for M1 test successful   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10071 | A | Close the HSCB   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10072 | A | Select RPT for M2 car  |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10073 | R | RPT for M2 test successful   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10074 | A | Close the HSCB   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10075 | A | Select RPT for M3 car  |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10076 | R | RPT for M3 test successful   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10077 | A | Close the HSCB   |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10078 | I | Traction Test  |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10079 | A | WARNING: Do not perform TRACTION TEST when the Reduced Power Test has failed.  |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10080 | A | Prepare the train in high voltage with active cab on TC1   |  | OK |          | Siphehile Mchunu - 491465 | 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 |          | Siphehile Mchunu - 491465 | Train |
| 10082 | R | After the Traction Test is complete, there are no traction faults logged on the DDU Event screen                                 |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10083 | I | Load requirements  |  | OK |          | Siphehile Mchunu - 491465 | Train |
| 10084 | R | Read Undefined Variable [TT] SBK_M1CarWeight   |  | OK | 34645.98 | Nokuzola Mdluli - 491469  | Train |
| 10085 | R | Read Undefined Variable [TT] SBK_M2CarWeight   |  | OK | 35399.83 | Nokuzola Mdluli - 491469  | Train |
| 10086 | R | Read Undefined Variable [TT] SBK_M3CarWeight   |  | OK | 34255.78 | Nokuzola Mdluli - 491469  | Train |
| 10087 | R | Read Undefined Variable [TT] SBK_M4CarWeight   |  | OK | 34374.15 | Nokuzola Mdluli - 491469  | Train |

|       |   |   |  |    |           |                             |       |
|-------|---|---|--|----|-----------|-----------------------------|-------|
| 10088 | R | Read Undefined Variable [TT]<br>SBK_Tc1CarWeight                        |  | OK | 34421.39  | Nokuzola Mdluli -<br>491469 | Train |
| 10089 | R | Read Undefined Variable [TT]<br>SBK_Tc2CarWeight                        |  | OK | 34037.1   | Nokuzola Mdluli -<br>491469 | Train |
| 10090 | A | Calculate the sum of all cars   |  | OK |           | Nokuzola Mdluli -<br>491469 | Train |
| 10091 | R | The sum of the weight for all cars<br>Result Max : $x \leq 223740$ (kg) |  | OK | 207134.04 | Nokuzola Mdluli -<br>491469 | Train |
| 10092 | I | End of Test   |  | OK |           | Nokuzola Mdluli -<br>491469 | Train |



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|



|   |  |                             |
|---|--|-----------------------------|
| Serial Tests Report<br>TS252 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007339<br>Version: A0 | Emission date<br>23/10/2024 |
|---|--|-----------------------------|

## 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            | Next Calibration date |
|----------|-------------------------|------------------------|-----------------------|
| 019_AIR  | Manometro               | Manometer              | 10/29/2024            |
| 025_NET  | Cable Analyser DSX5000  | Cable analyser DSX5000 | 10/30/2024            |
| 040_SBK  | Manometro               | Manometer              | 10/29/2024            |
| 040_SUP  | Manometro               | Manometer              | 10/29/2024            |
| 044_UBK  | Manometro               | Manometer              | 10/29/2024            |
| 045_PBK  | Manometro               | Manometer              | 10/29/2024            |
| 050_DOR  | NContrôleur de pression | Pressure Meter 1       | 10/31/2024            |
| 072_SGL  | Manometro               | Manometer              | 10/29/2024            |

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