

| PROJECT         | CUSTOMER | TRAIN     |
|-----------------|----------|-----------|
| Xtrapolis-PRASA | PRASA    | 217 – TFS |

RTR Train Functional Static Testing TS217 Report  
GIB0000006339



|           | CREATED             | VERIFIED          | APPROVED        | DISTRIBUTION                                                                                                                                                        |
|-----------|---------------------|-------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | Kealeboga MOCWAGOLE | Nkululeko NDOVELA | Kgomotso NKOANA | Confidentiality Category<br><i>Restricted</i> <i>Project</i> <i>Normal</i><br><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |
| Date      | 18/04/2024          | 18/04/2024        | 18/04/2024      | Control Category<br><i>Controlled</i> <i>Not Controlled</i><br><input checked="" type="checkbox"/> <input type="checkbox"/>                                         |
| Signature |                     |                   |                 | Language<br><b>EN</b>                                                                                                                                               |

This report has been automatically generated from TES version 1

## Table of modifications

| Rev | Date       | Modifications Content | Writer              |
|-----|------------|-----------------------|---------------------|
| A0  | 18/04/2024 | Creation              | Kealeboga MOCWAGOLE |

## Internal validations

|                 | Name                | Function                 | Date       | Signature                                                                                                                               |
|-----------------|---------------------|--------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Creator</b>  | Kealeboga MOCWAGOLE | EPU Manager              | 18/04/2024 | X <br>Kealeboga MOCWAGOLE<br>EPU Manager             |
| <b>Verifier</b> | Nkululeko NDOVELA   | Test Engineering Manager | 18/04/2024 | X <br>Nkululeko NDOVELA<br>Test Engineering Manager |
| <b>Approver</b> | Kgomotso NKOANA     | Test Expert              | 18/04/2024 | X <br>Kgomotso NKOANA<br>Test Expert               |

## Execution Plan

|                   |            |
|-------------------|------------|
| <b>Start Date</b> | 13/04/2024 |
| <b>End Date</b>   | 17/04/2024 |

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## Section 1 – Purpose / Objectives

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## Section 3 – Energy Distribution 110V

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### 3.3 Instructions list

### 3.3.1 015\_NRG-Energy Distribution 110V

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

| N°    | Type | Instruction                                                                                                                                                                                                                | File                                                                                | Result status | Result value | Operator                      | Vehicle |
|-------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|-------------------------------|---------|
| 10001 | I    | Energy Distribution 110V DC=SPP 015                                                                                                                                                                                        |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10002 | I    | Initial Conditions                                                                                                                                                                                                         |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10003 | I    | Train powered in normal mode with only battery power                                                                                                                                                                       |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10004 | A    | Activate Cab on TC1                                                                                                                                                                                                        |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10005 | A    | Close the battery contactor 18S1                                                                                                                                                                                           |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10006 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10007 | R    | After few minutes, the TCMS has successfully initialized on the DDU screen                                                                                                                                                 |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10008 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |  | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10009 | R    | The Battery Voltage on the Voltage line module is 110V                                                                                                                                                                     |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10010 | R    | On the Driver Screen, the battery voltage is the same as in the line module (110V)                                                                                                                                         |                                                                                     | OK            |              | Nqobile Chirwa - 484648       | Train   |
| 10011 | I    | Parameter Update                                                                                                                                                                                                           |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10012 | A    | Perform the following procedure to update the Energy saving parameters                                                                                                                                                     |  | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10013 | I    | CVS Firmware Update/SW Update                                                                                                                                                                                              |  | OK            |              | Paseka Ditlhakanyane - 491468 | 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            |              | Paseka Ditlhakanyane - 491468 | Train   |

|       |   |                                                                                                |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10015 | I | Power supply check for Equipment on Permanent line                                             |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10016 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10017 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10018 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10019 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10020 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10021 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10022 | A | Remove active cab on TC1                                                                       |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10023 | I | Train preparation on TC2 cab                                                                   |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10024 | A | Insert the Driver's Master key on TC2, turn it to ON position and close battery contactor 18S1 |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10025 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10026 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10027 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10028 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10029 | R | The emergency Lighting is ON in M3 saloon, left and right side in low                          |  | OK |  | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                                                                                  |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
|       |   | brightness                                                                                                                                       |  |    |  |                         |       |
| 10030 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness                                                                |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10031 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10032 | R | Train is successfully shutdown                                                                                                                   |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10033 | I | Battery Low Watchdog                                                                                                                             |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10034 | I | This test is to verify that the battery Watchdog relay is working, when the battery voltage drops below 93V DC, the train automatically shutdown |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10035 | A | On TC2, turn ON the cleaning lights switch 52S6                                                                                                  |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10036 | R | Emergency lighting is ON in all cars                                                                                                             |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10037 | A | Remove the relay 15K1 from its base                                                                                                              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10038 | R | Emergency lighting is OFF in all cars                                                                                                            |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10039 | A | Put back the relay 15K1 on its base                                                                                                              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10040 | A | Walk to the TC2 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10041 | R | The CVS Agate is OFF                                                                                                                             |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10042 | A | Switch On the train on TC1 side                                                                                                                  |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10043 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10044 | A | Turn the switch 52S6 to switch ON the cleaning lights                                                                                            |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10045 | A | Remove the relay 15K1 from its base                                                                                                              |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10046 | R | The emergency lighting is OFF in all cars                                                                                                        |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10047 | A | Put back the relay on its base                                                                                                                   |  | OK |  | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                     |                                                                                   |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10048 | A | Walk to the TC1 CVS Agate compartment and confirm that the CVS Agate is not powered |                                                                                   | OK |  | Nqobile Chirwa - 484648 | Train |
| 10049 | R | The CVS Agate is OFF                                                                |                                                                                   | OK |  | Nqobile Chirwa - 484648 | Train |
| 10050 | I | Train Earthing Procedure                                                            |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10051 | R | The train is successfully isolated and earthed.                                     |                                                                                   | OK |  | Nqobile Chirwa - 484648 | Train |
| 10052 | A | Normalize the train                                                                 |                                                                                   | OK |  | Nqobile Chirwa - 484648 | Train |
| 10053 | R | The train is normalized.                                                            |                                                                                   | OK |  | Nqobile Chirwa - 484648 | Train |
| 10054 | R | Check the IOS status to see if both PANTOS are NOT isolated.                        |                                                                                   | OK |  | Nqobile Chirwa - 484648 | Train |
| 10055 | I | End of Test                                                                         |                                                                                   | OK |  | Nqobile Chirwa - 484648 | Train |



|                                                                               |                                                    |                             |
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## Section 4 – Main Circuit Breaker Control

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### 4.3 Instructions list

#### 4.3.1 022\_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            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10002 | I    | Initial Conditions                                                                                                                              |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10003 | I    | This test is to verify the correct operation of the main high voltage circuit breaker.                                                          |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10004 | I    | Train in LV ready                                                                                                                               |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10005 | I    | The catenary should be switched OFF                                                                                                             |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10006 | I    | Circuit breaker 34Q1 should be closed in all Propulsion boxes                                                                                   |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10007 | I    | No Fire Detection alarm on the DDU screen                                                                                                       |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10008 | I    | Start Test                                                                                                                                      |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10009 | I    | HSCB control without High Voltage                                                                                                               |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | 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            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10011 | I    | The button 27S5 should not be pressed on both cars                                                                                              |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10012 | A    | Active Cab on TC1                                                                                                                               |      | OK            |              | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 0.0                                                                                   |      | OK            | 0            | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Nhlakanipho Maseondo<br>- 447208 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Nhlakanipho Maseondo<br>- 447208 | Train   |

|       |   |                                                               |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10031 | A | Press the button 21S1 to raise<br>Pantographs                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10032 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10033 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 =<br>1.0           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                   |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10034 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 = 1.0                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10035 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 = 1.0                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc1firedetection = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc2firedetection = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 1.0     |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 1.0     |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 1.0     |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 1.0     |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                    |  |    |   |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 0.0                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr2 = 0.0                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10056 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10057 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10058 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10059 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10060 | A | Press the button 21S1 to lower<br>pantographs                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10061 | I | Traction Converter Isolation TC1                                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10062 | A | Switch ON the 3kV DC on the catenary                                                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10064 | A | Press the button 21S1 to raise<br>pantographs                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10065 | A | Press the button 22S11 to close HSCBs                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10066 | R | Button lamp 22S11 is ON                                                                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 1.0                                                  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 0.0                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10077 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0              |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10086 | A | Press the button 22S11 to close HSCB                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                              |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10087 | A | Both HSCBs are closed                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10088 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10089 | A | Open HSCBs                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10090 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10091 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10092 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0            |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0              |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10101 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10102 | A | Both HSCBs are closed                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10103 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10104 | A | Open HSCBs                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10105 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                              |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10106 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10107 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0            |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10116 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10117 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10118 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10119 | R | All Traction units are in service and operational                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10120 | A | Press the button 22S12 to open the HSCBs                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0                |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10123 | A | Press the button 21S1 to lower both pantographs                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                            |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10124 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10125 | A | Remove active cab on TC1                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10126 | I | HSCB Operation with High Voltage                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10127 | A | Active Cab on TC2                                                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10128 | A | Press the button 21S1 to raise both<br>pantographs                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10129 | R | Both pantographs are raised successfully                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10130 | R | The voltage on the Line Voltage Indicator<br>module is at least 2.7 kV DC  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10131 | A | Press the button 22S11 to close HSCBs                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 =<br>0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1<br>= 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_li_HSCB_CL = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_li_HSCB_HOLD = 1.0               |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0               |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0               |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0               |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0             |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0             |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0             |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0             |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10146 | I | Traction Converter Isolation TC2                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpr1 = 0.0       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpr1 = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10158 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                 |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10165 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10166 | A | Both HSCBs are closed                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10167 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10168 | A | Open HSCBs                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10169 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10170 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10171 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M3/M4          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0               |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                 |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10180 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10181 | A | Both HSCBs are closed                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10182 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10183 | A | Open HSCBs                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10184 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10185 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10186 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0               |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10195 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                              |  |    |  |                                 |       |
|-------|---|------------------------------------------------------------------------------|--|----|--|---------------------------------|-------|
| 10196 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10197 | A | Press the button 22S11 to close HSCB                                         |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10198 | R | All Traction units are in service and operational                            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10199 | I | End of test                                                                  |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 5 – Computer Network and DDU Screen

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### 5.3 Instructions list

### 5.3.1 025\_NET-Computer Network and DDU Screen

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

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

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

|       |   |                                                                                                                   |  |    |   |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10020 | R | There is good connection between CRS2-M4[54A11]port X8 and CRS1-M2[54A10]port X7 TSX P03<br><br>Cable is crossed  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10021 | R | There is good connection between CRS1-M1[54A10]port X7 and CRS2-M3[54A11]port X8 TSX P04<br><br>Cable is crossed  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10022 | R | There is good connection between CRS2-M2[54A11]port X8 and CRS1-TC2[54A10]port X7 TSX P05<br><br>Cable is crossed |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10023 | R | There is good connection between CRS1-M3[54A10]port X7 and TRS1-TC2[54A13]ETH7 TSX P06<br><br>Cable is crossed    |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10024 | A | Download the results from the Fluke into a PDF format and upload it below                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10025 | I | MCE Redundancy Test                                                                                               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10026 | A | Switch ON the train in TC1 in Normal mode                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10027 | I | MCE in TC1 should be the master MCE to begin the test                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0                                                    |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0                                                    |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10030 | A | Open the circuit breaker 40Q1 in TC1                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10031 | I | The MCE in TC2 becomes the master MCE                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 1.0                                                    |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10033 | A | Close circuit breaker 40Q1 in TC1                                                                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10034 | A | Open circuit breaker 40Q1 in TC2                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                |  |    |   |                         |       |
|-------|---|----------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10035 | I | The MCE in TC1 becomes the Master                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10037 | A | Close the circuit breaker 40Q1 in TC2                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10040 | A | Go to software version on DDU and select RUN BL.               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10041 | R | The Train Baseline is : 1.8/10.1/10.2                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10042 | I | End of Test                                                    |  | OK |   | Celiwe Sokhela - 491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 6 – High Voltage Distribution

### 6.3 Instructions list

#### 6.3.1 010\_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            |              | Nhlakanipho Masondo<br>- 447208 | 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            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10003 | A    | Apply LOTO procedure on the High Voltage Catenary before commencing with the procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10004 | I    | High Voltage Line Continuity Check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10005 | A    | Check continuity of the following cables using a long wire, do not short any point to ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | 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 |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10007 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Nhlakanipho Masondo<br>- 447208 | 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 |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10009 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Nhlakanipho Masondo<br>- 447208 | 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 |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10011 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10012 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10013 | R | There is NO continuity.                                                                                                                                |  | OK |  | Nhlakanipho Masondo<br>- 447208 | 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 |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10015 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10016 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10017 | R | There is NO continuity.                                                                                                                                |  | OK |  | Nhlakanipho Masondo<br>- 447208 | 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 |  | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                                                        |  |    |  |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|---------------------------------|-------|
| 10019 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Nhlakanipho Masondo<br>- 447208 | 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 |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10021 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10022 | A | Put back all the removed covers and tighten                                                                                                            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10023 | R | All covers are back and normalized                                                                                                                     |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10024 | I | End of Test                                                                                                                                            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |

## Section 7 – Cabin Control

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### 7.3 Instructions list

### 7.3.1 020\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Condition                                                            |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Backup switch should be in Normal Position                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Train should be OFF                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Start Test                                                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Cab Active TC1                                                               |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | A    | Insert Driver's Master key and turn it to ON position                        |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | A    | Close the battery contactor 18S1                                             |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | Train successfully start up in normal mode                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | A    | Put the direction selector switch to FORWARD position                        |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Try to put the Driver's master key in OFF position or remove it from the cab |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | It is not possible to remove or turn the Driver's master key                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | A    | Put the direction selector switch to NEUTRAL position                        |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0            |      | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10015 | A    | Turn key to non-active cab                                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | A    | Open and close circuit breaker 20Q2                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0             |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                         |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0          |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 1.0          |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0          |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 1.0       |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 0.0       |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 1.0       |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 1.0       |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 1.0       |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 1.0          |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 1.0          |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10031 | A | Active cab on TC1                                                       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0       |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 1.0        |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                      |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 0.0                                                       |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 0.0                                                       |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 0.0                                                       |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 0.0                                                       |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 0.0                                                    |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 1.0                                                    |  | OK | 1 | Celiwe Sokhela -<br>491462  | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 0.0                                                    |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 0.0                                                    |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 0.0                                                    |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0                                           |  | OK | 1 | Celiwe Sokhela -<br>491462  | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 0.0                                           |  | OK | 0 | Celiwe Sokhela -<br>491462  | Train |
| 10046 | I | Train Preparation with Automatic Start<br>button TC1                                                                 |  | OK |   | Celiwe Sokhela -<br>491462  | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                                                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10048 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10049 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10050 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10051 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                        |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------------------|----|---|-----------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                   | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10053 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                 | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10054 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                  | OK | 2 | Sizwe Sibanyoni -<br>484647 | Train |
| 10055 | I | Train De-preparation with Automatic Start<br>button TC1                                | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10056 | A | Press the automatic start button 20S1                                                  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10057 | A | Timer 5.0 S                                                                            | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                   | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10059 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                 | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10060 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10061 | A | Remove active cab on TC1                                                               | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10062 | I | Standby mode TC1                                                                       | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10063 | A | Active cab on TC1                                                                      | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10064 | A | Press the automatic start button 20S1                                                  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10065 | A | Remove active Cab on TC1                                                               | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10066 | A | Manually isolate EB on M4 using the<br>pneumatic cock C2.3/1                           | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10067 | A | Press the standby mode button 20S2 and<br>maintain it                                  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10068 | A | Manually isolate EB on TC1 using the<br>pneumatic cock C1.3/1                          | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10069 | R | The pantograph lower and both HSCB<br>open, then the train shuts down<br>automatically | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10070 | A | Normalize the cock on M4                                                               | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                              |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10071 | A | Normalize the cock on TC1                                                    |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10072 | A | Cab Active TC2                                                               |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10073 | A | Insert Driver's Master Key and turn it to ON position                        |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10074 | A | Put the direction selector switch to FORWARD position                        |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10075 | A | Try to put the Driver's master key in OFF position or remove it from the cab |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10076 | R | It is not possible to remove or turn the Driver's master key                 |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10077 | A | Put the direction selector switch to NEUTRAL position                        |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10078 | A | Turn key to non-active cab                                                   |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10079 | A | Open and close the circuit breaker 20Q2                                      |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0            |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey___1 = 0.0            |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey___1 = 0.0            |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2___1 = 1.0           |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1___1 = 1.0           |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 1.0               |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 1.0               |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 1.0            |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 0.0            |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 1.0          |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 1.0          |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 1.0          |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10095 | A | Active cab on TC2                                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 1.0           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelay1__1 = 0.0           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelay3 = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelay2__1 = 0.0           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 0.0          |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 1.0          |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 0.0          |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 0.0          |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                                                      |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_CAB_Tc2CabinActiveR5 = 0.0                                                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                                    |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc10thercabinactive__1<br>= 0.0                                           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc20thercabinactive__1<br>= 1.0                                           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10110 | I | Train Preparation with Automatic Start<br>button TC2                                                                 |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0                                                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10112 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10113 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10114 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10115 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 1.0                                                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10117 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                                               |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10118 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                                                |  | OK | 2 | Sizwe Sibanyoni -<br>484647 | Train |
| 10119 | I | Train De-preparation with Automatic Start<br>button TC2                                                              |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10120 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 0.0                                                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10122 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                                         |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10123 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10124 | I | Double Cabin and cabin change                                                                           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10125 | I | Each cabin must have its own Driver's<br>Master key                                                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10128 | A | Remove active cab on TC2                                                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10129 | A | Open and close the circuit breaker 20Q2                                                                 |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10132 | A | Activate the cab on TC2                                                                                 |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10133 | A | Active cab on TC1                                                                                       |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10134 | R | IOS 064 appears on the Driver's event list<br>to notify the driver a second key has been<br>inserted    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10137 | A | Remove active cab on TC2                                                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10139 | R | IOS 064 disappears on the Driver's event<br>list to notify the driver a second key has<br>been inserted |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10140 | A | Remove active cab from TC1                                                                              |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                        |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0                      |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                      |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10143 | I | Standby mode TC2                                                                       |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10144 | A | Active cab on TC2                                                                      |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10145 | A | Press the automatic start button 20S1                                                  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10146 | A | Remove active Cab on TC2                                                               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10147 | A | Manually isolate EB on M3 using the<br>pneumatic cock C2.3/1                           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10148 | A | Press the standby mode button 20S2 and<br>maintain it                                  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10149 | A | Manually isolate EB on TC2 using the<br>pneumatic cock C1.3/1                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10150 | R | The pantograph lower and both HSCB<br>open, then the train shuts down<br>automatically |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10151 | A | Normalize the cock on M3                                                               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10152 | A | Normalize the cock on TC2                                                              |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10153 | I | End of Test                                                                            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 8 – Energy Distribution 400V AC

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### 8.3 Instructions list

### 8.3.1 014\_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            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10002 | I    | Initial Conditions                                                             |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10003 | I    | TCMS should be working on train                                                |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10004 | I    | No high voltage present on catenary                                            |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10005 | I    | Start of Test                                                                  |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10006 | A    | Activate the Cab on TC2                                                        |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10007 | A    | Close the battery contactor 18S1                                               |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10008 | I    | Wait for the TCMS to successfully initialize, then do the steps below          |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1<br>= 1.0 |      | OK            | 1            | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnection1 =<br>1.0      |      | OK            | 1            | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1<br>= 1.0 |      | OK            | 1            | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnection2 =<br>1.0      |      | OK            | 1            | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10013 | A    | Trip the Circuit Breaker CC(ALS) on TC2 CVS<br>AGATE compartment               |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr1___1<br>= 0.0 |      | OK            | 0            | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1<br>= 0.0 |      | OK            | 0            | Nhlakanipho Masondo<br>- 447208 | Train   |

|       |   |                                                                                   |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10016 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1___1<br>= 0.0        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2___1<br>= 0.0        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10018 | I | Wait for 30s timer in the next step prior to<br>resetting Circuit Breaker CC(ALS) |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10019 | A | Timer 30.0 S                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10020 | A | Reset the Circuit Breaker CC(ALS) on TC2<br>CVS AGATE compartment                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10021 | A | Trip the Circuit Breaker CC(AL) on TC2 CVS<br>AGATE compartment                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1<br>= 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1<br>= 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10024 | I | Wait for 30s timer in the next step prior to<br>resetting Circuit Breaker CC(ALS) |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10025 | A | Timer 30.0 S                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10026 | A | Reset the Circuit Breaker CC(AL) on TC2<br>CVS AGATE compartment                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10027 | A | Activate the Cab on TC1                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10028 | A | Close the battery contactor 18S1                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10029 | I | Wait for the TCMS to successfully initialize,<br>then do the steps below          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1<br>= 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 =<br>1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10032 | R | Read Defined Variable [TT]                                                        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                |  |    |   |                                 |       |
|-------|---|--------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
|       |   | (MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0                                  |  |    |   |                                 |       |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10034 | A | Trip the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr2___1 = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 0.0        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 0.0        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10039 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10040 | A | Timer 30.0 S                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10041 | A | Reset the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10042 | A | Trip the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10045 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10046 | A | Timer 30.0 S                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10047 | A | Reset the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                          |                                                                                     |    |   |                                  |       |
|-------|---|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|----------------------------------|-------|
| 10048 | I | Automatic Train Preparation & Auxiliary Converter Status                                                 |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 0.0                                     |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr2 = 0.0                                     |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10051 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 1.0                                                     |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10052 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 1.0                                                     |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10053 | A | Timer 5.0 S                                                                                              |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                     |                                                                                     | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr2 = 0.0                                     |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 1.0                                     |                                                                                     | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10057 | R | Lamp 18H1 is ON                                                                                          |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10058 | R | The ACU on TC1 and TC2 are not operational, the ACU appears in Grey colour on the DDU maintenance screen |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 0.0                                  |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 0.0                                  |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 0.0                                  |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 0.0                                  |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1 = 1.0                                 |                                                                                     | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                         |                                                                                     |    |   |                                 |       |
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| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 1.0         |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 1.0         |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10067 | A | Switch on 3 kV DC on the catenary                                       |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr1 = 1.0         |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr1 = 1.0         |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10072 | R | Aux with reduced performance, lamp 18H1 is OFF                          |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 0.0    |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10074 | R | Both ACUs are operational                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1__1 = 1.0  |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2__1 = 1.0  |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1__1 = 1.0  |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2__1 = 1.0  |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10079 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr1                        |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                         |  |    |   |                                 |       |
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| 10080 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstart2                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10081 | I | ACU Isolation and Bypass                                                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0                      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0                      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10084 | A | Put the switch 18S3(ACU ISOLATION) to<br>ISOLATION position                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 1.0                     |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 0.0                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0                      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10088 | I | The help contactor closes on M2 car                                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10090 | R | Verify that only one ACU is operational on<br>the DDU, and the help contactor is closed |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10091 | A | Put the switch 18S3 (ACU ISOLATION) to<br>NORMAL position                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10092 | A | Press the button 22S12 to open HSCB                                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10093 | R | Button lamp 22S12 is ON                                                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10094 | A | Press the button 22S11 to close HSCB                                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10095 | R | Button lamp 22S12 is OFF                                                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10096 | R | Both ACUs are operational on DDU Driver's<br>screen                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                      |  |    |   |                                 |       |
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| 10099 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position on TC2                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 1.0                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0                   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 0.0                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10103 | I | The help contactor closes on M2 car                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 1.0                   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10105 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10106 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC2                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10107 | A | Press the button 22S12 to open HSCB                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10108 | A | Press the button 22S11 to close HSCB                                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10109 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 0.0                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 0.0                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10112 | I | ACU Fault simulation                                                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10113 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC1          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10114 | A | Lamp 18H1 is ON in the alarm module                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10115 | A | Timer 20.0 S                                                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10117 | A | Close the ACU AGATE circuit breaker                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                                  |       |
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| 10118 | A | Timer 30.0 S                                                                             |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10119 | A | Open HSCB                                                                                |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)Io_nrg_m2converterhelpr1 = 0.0                       |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10121 | A | Close HSCB                                                                               |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10122 | R | Lamp 18H1 is OFF in the alarm module                                                     |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10123 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC2              |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10124 | A | Lamp 18H1 is ON in the alarm module                                                      |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10125 | A | Timer 20.0 S                                                                             |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10126 | A | Close the ACU AGATE circuit breaker                                                      |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10127 | A | Timer 30.0 S                                                                             |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10128 | A | Open HSCB                                                                                |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10129 | A | Close HSCB                                                                               |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10130 | I | Verifying Aux Converter Output                                                           |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10131 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position on TC1 and TC2                 |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10132 | I | ACU stops working in TC1 and TC2 car                                                     |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)Io_nrg_m2converterhelpr1 = 0.0                       |                                                                                     | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10134 | R | Lamp 18H1 is ON in the alarm module                                                      |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10135 | I | This test is performed to verify that the ACUs can supply all the loads without tripping |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10136 | A | Open the circuit breaker 19Q2 on TC1                                                     |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10137 | A | Open the circuit breaker 57Q1 for all HVAC units                                         |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10138 | A | Open the circuit breaker 19Q2 TC2                                                        |                                                                                     | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |

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| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0         |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0          |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0          |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0          |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0          |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0         |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0        |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0        |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10147 | A | Put the switch 18S3 (ACU ISOLATION) to<br>NORMAL position on TC1 and TC2 |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10148 | I | ACU starts working on TC1 and TC2                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10149 | A | Close the circuit breaker 19Q2 TC1                                       |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10150 | A | Close the circuit breaker 57Q1 for all HVAC<br>units                     |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10151 | I | It is necessary to check on the DDU screen<br>for HVAC status            |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 1.0         |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0          |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0          |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0          |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0          |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

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| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 1.0                                                                                                                    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10158 | A | Close the circuit breaker 19Q2 TC2                                                                                                                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                                   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                                                                                                   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10161 | R | Verify the circuit breaker 18Q2 ACU on TC1<br>and TC2 have not tripped                                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10162 | A | Release [TT]<br>(MPU1)lo_cab_tc1automaticstartr1                                                                                                                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10163 | A | Release [TT]<br>(MPU1)lo_cab_tc1automaticstartr2                                                                                                                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10164 | I | Shore supply 400Vac                                                                                                                                                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10165 | I | This test is to verify if the Aux converters are<br>able to start-up successfully under external<br>power supply and also charge the batteries<br>without 3kV DC from the catenary. |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10166 | I | The shore supply used should be limited to<br>63A at 400Vac, 50Hz, three phase. A neutral<br>on the shore supply is mandatory.                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10167 | A | Press the button 22S12 to open the HSCB                                                                                                                                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10168 | A | Press switch 21S1 to lower both<br>pantographs                                                                                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                                                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                                                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10173 | A | Connect the shore supply on TC1 ACU                                                                                                                                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                         |  |    |   |                                 |       |
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| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10178 | A | Press switch 21S1 to raise both pantographs                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10179 | A | Close HSCB using the button 22S11                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10180 | I | It is not possible to close HSCB with shore supply connected            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpr1 = 0.0        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10182 | A | Remove shore supply from TC1 ACU                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10187 | A | Connect the shore supply on TC2 ACU                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0      |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10191 | R | Read Defined Variable [TT]                                              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

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|       |   | (MPU1)li_nrg_tc2contactopen400r2__1 = 0.0                                                                                                                 |  |    |   |                                  |       |
| 10192 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10193 | I | It is not possible to close HSCB with shore supply connected                                                                                              |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 0.0                                                                                         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10195 | A | Remove shore supply from TC2 ACU                                                                                                                          |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10196 | I | Shore Supply with 3kV present                                                                                                                             |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | 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 |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10198 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 1.0                                                                                         |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10202 | A | Connect the shore supply on TC1 ACU                                                                                                                       |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10207 | A | Force [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0                                                                                                        |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                         |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10210 | R | The HSCBs open                                                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10211 | A | Release [TT]<br>(MPU1)li_nrg_tc1shoresupply__1                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10212 | A | Remove shore supply from TC1 ACU                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10215 | A | Close HSCB using the button 22S11                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10218 | A | Connect the shore supply on TC2 ACU                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10223 | A | Force [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                         |  |    |   |                                  |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10226 | R | The HSCBs open                                                          |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10227 | A | Release [TT]<br>(MPU1)li_nrg_tc2shoresupply__1                          |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10228 | A | Remove shore supply from TC2 ACU                                        |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10231 | A | Close HSCB                                                              |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10232 | R | Both ACUs are operational                                               |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10233 | I | ACU reverse mode                                                        |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10234 | A | Open HSCB                                                               |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10235 | R | Verify on the DDU that the HSCB is open on M1 and M2                    |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10236 | R | Verify on the DDU that all HVACs are only operating in Ventilation mode |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10237 | R | Verify on the DDU that both CVS are operating in reverse mode           |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10238 | R | Verify on the DDU that both MASU are not running                        |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10239 | A | Switch ON the 3kV DC on the catenary                                    |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10240 | A | Close HSCB using button 22S11                                           |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10241 | R | Line voltage indicator shows at least 2.7kV DC                          |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10242 | R | Verify on the DDU that the HSCB is closed on M1 and M2                  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10243 | R | Verify on the DDU that all HVACs are operating under normal condition   |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                            |  |    |   |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10244 | I | Automatic Train De-preparation & Auxiliary Converter status TC2                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10245 | A | Press the Automatic start button 20S1 on the Driver's Desk or Virtual button on DDU screen |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10248 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10249 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10250 | R | Train is in LV ready                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10251 | I | Automatic train preparation and de-preparation on TC2                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10252 | A | Insert the Driver's master key on TC2 and turn it to ON position                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10253 | A | Close the battery contactor 18S1                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10254 | A | After the TCMS successful initialization, press the automatic start button 20S1            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10255 | R | Train is prepared in high voltage                                                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10256 | A | Press the automatic start button 20S1 to de-prepare the train                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10257 | R | Train is in LV ready                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10258 | A | Open the battery contactor 18S1 to shut down the train                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10259 | R | After few seconds, the train is successfully shutdown                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10260 | A | Close the battery contactor 18S1                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10261 | A | Wait for the TCMS to successfully initialize                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10262 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                      |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
|       |   | following:                                                                                           |  |    |   |                                 |       |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr1___1 = 1.0                                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr2___1 = 1.0                                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10265 | A | Release battery contactor 18S1                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10266 | A | Once the PACIS has successfully initialized,<br>Open the battery contactor 18S1.                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10267 | A | Insert the Driver's master key on TC1 and<br>turn it to ON position                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10268 | A | Close the battery contactor 18S1                                                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10269 | A | Wait for the TCMS to successfully initialize                                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10270 | R | Train is in LV ready                                                                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10271 | A | Open the battery contactor 18S1 to shut<br>down the train                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10272 | A | Close the battery contactor 18S1                                                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10273 | A | Wait for the TCMS to successfully initialize                                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10274 | A | Before the PACIS initialize, open, and HOLD<br>the battery contactor 18S1 and read the<br>following: |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr1___1 = 1.0                                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr2___1 = 1.0                                 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10277 | A | Release battery contactor 18S1                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10278 | A | Once the PACIS has successfully initialized,<br>Open the battery contactor 18S1.                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10279 | I | End of test                                                                                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |



Serial Tests Report  
TS217 – TFS  
RTR Train Functional Static Test Report

Document Reference  
GIB0000006339  
Version: A0

Emission date  
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## Section 9 – Internal Lighting

### 9.3 Instructions list

#### 9.3.1 052\_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            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10003 | I    | Train should be off                                                                                |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10004 | I    | Main lighting                                                                                      |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                         |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10006 | I    | Main lighting is 100% brightness                                                                   |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10007 | R    | Main lighting is (ON) on TC1, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10008 | R    | Main lighting is (ON) on M4, verify the left and right LEDs are ON in each row in 100% brightness. |      | OK            |              | Sinazo Mkhwa -<br>529940              | Train   |
| 10009 | R    | Main lighting is (ON) on M1, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10010 | R    | Main lighting is (ON) on M2, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10011 | R    | Main lighting is (ON) on M3, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10012 | R    | Main lighting is (ON) on TC2, verify the left and right LEDs are ON in each row in                 |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |

|       |   |                                                                       |  |    |  |                                    |       |
|-------|---|-----------------------------------------------------------------------|--|----|--|------------------------------------|-------|
|       |   | 100% brightness                                                       |  |    |  |                                    |       |
| 10013 | A | Force [TT] (MPU1)lo_lgt_tc1mainlgtcmd = 0.0                           |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10014 | A | Force [TT] (MPU1)lo_lgt_tc2mainlgtcmd = 0.0                           |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10015 | R | Emergency lighting is (ON) on TC2, brightness has been reduced to low |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10016 | R | Emergency lighting is (ON) on M3, brightness has been reduced to low  |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10017 | R | Emergency lighting is (ON) on M2, brightness has been reduced to low  |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10018 | R | Emergency lighting is (ON) on M1, brightness has been reduced to low  |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10019 | R | Emergency lighting is (ON) on M4, brightness has been reduced to low  |  | OK |  | Sinazo Mkhwa - 529940              | Train |
| 10020 | R | Emergency lighting is (ON) on TC1, brightness has been reduced to low |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10021 | A | Release [TT] (MPU1)lo_lgt_tc1mainlgtcmd                               |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10022 | A | Release [TT] (MPU1)lo_lgt_tc2mainlgtcmd                               |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10023 | I | End of Test                                                           |  | OK |  | Hlawulani Nick Mabundzane - 418320 | Train |

## Section 10 – Air Production

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### 10.3 Instructions list

### 10.3.1 019\_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            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10002 | I    | Initial Conditions                                                               |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10003 | A    | Put the train in LV ready (No High Voltage/No Shore Supply) on TC1 as active cab |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10004 | A    | Drain the air on TC1 main pipe using the cock F2.1/1                             |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10005 | R    | The pressure gauge of the main pipe is 0 bar                                     |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10006 | A    | Normalise the cock                                                               |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10007 | I    | Start of Test                                                                    |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0               |      | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                 |      | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10010 | A    | Open circuit breaker 19Q3 on TC1                                                 |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 0.0                    |      | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10012 | A    | Close circuit breaker 19Q3                                                       |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                    |      | OK            | 1            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10014 | A    | Open circuit breaker 19Q3 on TC2                                                 |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 0.0                    |      | OK            | 0            | Hlawulani Nick<br>Mabundzane - 418320 | Train   |
| 10016 | A    | Close circuit breaker 19Q3 on TC2                                                |      | OK            |              | Hlawulani Nick<br>Mabundzane - 418320 | Train   |

|       |   |                                                                                                      |  |    |   |                                       |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                                        |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10020 | I | Main Compressor operation                                                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10021 | A | Press the automatic start button 20S1                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10022 | I | Both main air compressors start up                                                                   |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                   |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                   |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10029 | I | It is necessary to check main pipe pressure<br>on the pneumatic gauge of TC1 and TC2<br>individually |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10030 | A | Wait for 10 minutes, then read the<br>variables below                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                               |  |    |   |                                       |       |
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| 10035 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0                                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10037 | A | Force [TT] NET_TrainTimeEvenDay = 1.0                                                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10038 | A | Drain the air in the main pipe from TC1<br>side using cock F2.1/1 until the pressure<br>reaches below 8.5 bar |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                                              |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                              |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10041 | A | Normalise the cock F2.1/1 and let the<br>compressor runs until it stops                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10042 | A | Force [TT] NET_TrainTimeEvenDay = 0.0                                                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10043 | A | Drain the air in the main pipe from TC1<br>side using cock F2.1/1 until the pressure<br>reaches below 8.5 bar |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                              |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                                              |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10046 | I | Compressor Manual Isolation TC1                                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10047 | A | Normalise the cock F2.1/1 and let the<br>compressor runs until it stops                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10048 | A | Put the pneumatic switch 19S1 to<br>ISOLATION position                                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr1 = 1.0                                               |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 1.0                                               |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                 |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                                           |                                                                                     |    |        |                                       |       |
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| 10052 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                                                                                                          |                                                                                     | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10053 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                                                                                                                       |                                                                                     | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr1 = 0.0                                                                                                           |                                                                                     | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 0.0                                                                                                           |                                                                                     | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                                                                                                          |                                                                                     | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                     | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10058 | R |                                                                                                                                                                           |                                                                                     | OK | 983.34 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10059 | I | Compressor stops when it reaches 10 bar                                                                                                                                   |                                                                                     | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                     | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10061 | R | Verify that the pressure gauge indicates<br>the correct pressure values, according to<br>the DDU<br>BC: Brake cylinder(yellow indicator)<br>MRP: Main Pipe(Red indicator) |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10062 | I | Compressor Remote Isolation TC1                                                                                                                                           |                                                                                     | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                                                                                          |                                                                                     | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                     | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0                                                                                                              |                                                                                     | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10066 | I | It is important to make sure the main pipe<br>pressure is always below 10 bar for the<br>purpose of this test                                                             |                                                                                     | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10067 | A | Release the air in the main pipe until it<br>reaches below 8.5 bar                                                                                                        |                                                                                     | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10068 | A | Open circuit breaker 19Q3                                                                                                                                                 |                                                                                     | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                    |  |    |   |                                       |       |
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| 10069 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10070 | A | Press the button 19S2 and hold                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10074 | A | Release the button 19S2                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10078 | A | Open circuit breaker 19Q2 in the LVB                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0  |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10080 | A | Press and hold the button 19S2                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10082 | A | Release the button 19S2                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1remotecb = 0.0       |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10084 | A | Close circuit breaker 19Q3                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10085 | A | Press 19S2 and RELEASE in less than a second                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10088 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10089 | I | Compressor Manual Isolation TC2                                    |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10090 | A | Put the pneumatic switch 19S1 to<br>ISOLATION position             |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 1.0    |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 1.0    |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0 |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10094 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                   |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10098 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 0.0    |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 0.0    |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0 |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10104 | I | Compressor stops when it reaches 10 bar                            |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10105 | R |                                                                    |  | OK | 980.18 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10106 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                      |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10107 | A | Remove active cab on TC1                                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                                           |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10109 | A | Active cab on TC2                                                                                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                        |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10111 | I | Compressor Remote Isolation TC2                                                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                            |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | 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 |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10115 | A | Release the air in the main pipe until it reaches below 8.5 bar                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                      |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10117 | A | Open circuit breaker 19Q3                                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10118 | A | Press and hold the button 19S2                                                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10121 | A | Release the button 19S2                                                                                 |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                            |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10124 | A | Open circuit breaker 19Q2 in LVB                                                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                                                                           |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10126 | A | Press and hold the button 19S2                                                                                                              |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                                                                |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10128 | A | Release the button 19S2                                                                                                                     |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10129 | A | Close circuit breaker 19Q3                                                                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2remotecb = 0.0                                                                                |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10131 | A | Press 19S2 and RELEASE in less than a second                                                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                                                           |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                                                          |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                                                |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10135 | I | Air tightness of Main pipe and other pneumatic systems on train                                                                             |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10136 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                                                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10137 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                                                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10138 | A | Empty the main pipe pressure using draining cock A5/1 until it reaches below 7.5 bar                                                        |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10139 | I | Put both compressors in service by closing circuit breaker 19Q2 and also ensure isolation switch 19S1 is in NORMAL position on both TC cars |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                                                                |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

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| 10142 | I | Only one compressor starts when the pressure reaches below 8.5 bar. At 10bar +/- 0.2 bar the compressor stops.                                                                                       |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10143 | I | After 10 minutes, the air in the main pipe should not be less than 9.3 bar                                                                                                                           |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10144 | R | Read Undefined Variable [TT] (MPU1)air_bcu1mrpres                                                                                                                                                    |  | OK | 923.29 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10145 | I | Air tightness of main reservoirs and associated devices combined with other pneumatic equipment's                                                                                                    |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10146 | A | Isolate the Service and Emergency Brake circuit of each car by turning the isolation cocks C1.3/1 and C.2.3/1 towards the isolation position                                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10147 | A | Reset the air in the main pipe to 10 bar+/- 0.2 bar                                                                                                                                                  |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10148 | I | If necessary drain the air in the main pipe until at least one compressor starts to reset the pressure to 10 bar                                                                                     |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | 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 |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10150 | R |                                                                                                                                                                                                      |  | OK | 1000   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10151 | A | NORMALISE the isolation cocks C1.3/1 and C2.3/1                                                                                                                                                      |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10152 | I | Air tightness of brake cylinders and auxiliary reservoirs                                                                                                                                            |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10153 | R | The pressure on the pneumatic indicator is 10 bar +/-0.2 bar                                                                                                                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10154 | A | Select driving direction to FORWARD position                                                                                                                                                         |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10155 | A | Put Master Controller in 100% Service brake position                                                                                                                                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10156 | A | Using the manometer, check the SB values in each brake panel, in each car the pressure should not decrease more than                                                                                 |  | OK |        | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                                                                                                     |                                                                                   |    |       |                                       |       |
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|       |   | 20kPa in over 12 minutes                                                                                                                                            |                                                                                   |    |       |                                       |       |
| 10157 | R | SB TC1<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                     |                                                                                   | OK | 139.7 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10158 | R | SB M4<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                      |                                                                                   | OK | 136.7 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10159 | R | SB M1<br>Result Min/Max : 137<= x <= 177 (kPa)                                                                                                                      |                                                                                   | OK | 137.9 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10160 | R | SB M2<br>Result Min/Max : 137<= x <= 176 (kPa)                                                                                                                      |                                                                                   | OK | 140.4 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10161 | R | SB M3<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                      |                                                                                   | OK | 139   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10162 | R | SB TC2<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                     |                                                                                   | OK | 136   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10163 | R | Verify that the pressure gauge indicates the correct pressure values, according to the DDU<br>BC: Brake cylinder(yellow indicator)<br>MRP: Main Pipe(Red indicator) |  | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10164 | I | Draining Cock for Intercar                                                                                                                                          |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10165 | I | Air in the main pipe should be 10 bar +/- 0.2 bar                                                                                                                   |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10166 | A | This test is to ensure that the draining cocks are fully functional                                                                                                 |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10167 | A | Isolate all the cocks from M3 to M4                                                                                                                                 |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10168 | A | Drain the air on TC1 car using the cock F2.1/1                                                                                                                      |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10169 | A | Drain the air on M4 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10170 | A | Drain the air on M1 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10171 | A | Drain the air on M2 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10172 | A | Drain the air on M3 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10173 | A | Drain the air on TC2 car using the cock F2.1/1                                                                                                                      |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10174 | A | Normalise all the cocks                                                                                                                                             |                                                                                   | OK |       | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                              |  |    |  |                                       |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|--|---------------------------------------|-------|
| 10175 | A | Use the tool on the top right corner to add the manometer used for this test (serial number) |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10176 | I | End of Test                                                                                  |  | OK |  | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 11 – Monitoring Circuit Breakers

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### 11.3 Instructions list

### 11.3.1 080\_MCB-Monitoring Circuit Brekers

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

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

|       |   |                                                                   |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|----|---|--------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 1.0      | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10019 | A | Open the circuit breaker 40Q4                                     | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 0.0       | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10021 | A | Close the circuit breaker 40Q4                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 1.0       | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10023 | A | Open the circuit breaker 50Q7                                     | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 0.0       | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10025 | A | Close the circuit breaker 50Q7                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 1.0       | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10027 | A | Open the circuit breaker 22Q1                                     | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 0.0      | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10029 | A | Close the circuit breaker 22Q1                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 1.0      | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10031 | A | Open the circuit breaker 44Q1                                     | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 0.0 | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 0.0 | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10034 | A | Close the circuit breaker 44Q1                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 1.0 | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 1.0 | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10037 | A | Open the circuit breaker 72Q2                                     | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                    |  |    |   |                          |       |
|-------|---|--------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10039 | A | Close the circuit breaker 72Q2                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10041 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU2)Li_DDK_Tc1CbTcms1R2 = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10043 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10044 | A | Open the circuit breaker 25Q13                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10046 | A | Close the circuit breaker 25Q13                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r2 = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10049 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10052 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10055 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                    |  |    |   |                          |       |
|-------|---|--------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10058 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10061 | I | M4                                                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10062 | A | Open the circuit breaker 15Q4                                      |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10064 | A | Close the circuit breaker 15Q4                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10066 | A | Open the circuit breaker 13Q1                                      |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10068 | A | Close the circuit breaker 13Q1                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10070 | A | Open the circuit breaker 57Q1                                      |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10072 | A | Close the circuit breaker 57Q1                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10074 | A | Open the circuit breaker 40Q1                                      |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 0.0         |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10076 | A | Close the circuit breaker 40Q1                                     |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                  |    |   |                          |       |
|-------|---|------------------------------------------------------------------|----|---|--------------------------|-------|
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 1.0       | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10078 | A | Open the circuit breaker 50Q4                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 0.0       | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10080 | A | Close the circuit breaker 50Q4                                   | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 1.0       | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10082 | A | Open the circuit breaker 57Q2                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10085 | A | Close the circuit breaker 57Q2                                   | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 1.0        | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10087 | A | Open the circuit breaker 52Q4                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 0.0    | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10089 | A | Close the circuit breaker 52Q4                                   | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 1.0    | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10091 | A | Open the circuit breaker 54Q10                                   | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 0.0        | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10093 | A | Close the circuit breaker 54Q10                                  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 1.0        | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10095 | A | Open the circuit breaker 44Q1                                    | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 0.0 | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10098 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10101 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10103 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10105 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10108 | A | Close the circuit breaker 25Q6                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10111 | A | Open the circuit breaker 25Q10                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10113 | A | Close the circuit breaker 25Q10                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10114 | A | Open the circuit breaker 25Q14                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10116 | A | Close the circuit breaker 25Q14                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                 |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10119 | A | Open the circuit breaker 33Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10121 | A | Close the circuit breaker 33Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10123 | A | Open the circuit breaker 55Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 0.0  |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10125 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 1.0  |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10127 | I | M1                                                              |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10128 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10130 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10132 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10134 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10136 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                 |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10138 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10140 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10142 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10144 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10146 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10148 | A | Open the circuit breaker 21Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10150 | A | Close the circuit breaker 21Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10152 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 0.0       |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10154 | A | Close the circuit breaker 57Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 1.0       |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10156 | A | Open the circuit breaker 52Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                 |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10158 | A | Close the circuit breaker 52Q4                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10160 | A | Open the circuit breaker 54Q10                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 0.0       |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10162 | A | Close the circuit breaker 54Q10                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 1.0       |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10164 | A | Open the circuit breaker 44Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10167 | A | Close the circuit breaker 44Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10170 | A | Open the circuit breaker 13Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10172 | A | Close the circuit breaker 13Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10174 | A | Open the circuit breaker 25Q6                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtms1r1 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10177 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10180 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10182 | A | Close the circuit breaker 25Q10                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10183 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10185 | A | Close the circuit breaker 25Q14                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10188 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 0.0  |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10190 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 1.0  |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10192 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10194 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                 |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10196 | I | M2                                                              |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10197 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10199 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10201 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10203 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10205 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10207 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10209 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10211 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10213 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10215 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                               |  |    |   |                          |       |
|-------|---|---------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10217 | A | Open the circuit breaker 21Q2                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 0.0   |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10219 | A | Close the circuit breaker 21Q2                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10221 | A | Open the circuit breaker 62Q2                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 0.0  |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 0.0  |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10224 | A | Close the circuit breaker 62Q2                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 1.0  |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 1.0  |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10227 | A | Open the circuit breaker 57Q2                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvacc = 0.0    |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10229 | A | Close the circuit breaker 57Q2                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvacc = 1.0    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10231 | A | Open the circuit breaker 52Q4                                 |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10233 | A | Close the circuit breaker 52Q4                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10235 | A | Open the circuit breaker 54Q10                                |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10236 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 0.0        |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10237 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 1.0        |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10239 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10242 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10245 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10247 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10249 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10252 | A | Close the circuit breaker 25Q6                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                 |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10255 | A | Open the circuit breaker 25Q10                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 0.0    |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10257 | A | Close the circuit breaker 25Q10                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10258 | A | Open the circuit breaker 25Q14                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 0.0    |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10260 | A | Close the circuit breaker 25Q14                                 |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10261 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 1.0    |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10262 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 1.0    |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10263 | A | Open the circuit breaker 33Q1                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 0.0   |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10265 | A | Close the circuit breaker 33Q1                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 1.0   |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10267 | A | Open the circuit breaker 55Q2                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 0.0  |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10269 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 1.0  |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10271 | I | M3                                                              |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10272 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10274 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                 |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10276 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10278 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10280 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10282 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10284 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10286 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10288 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10290 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 1.0      |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10292 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvacc = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10294 | A | Close the circuit breaker 57Q2                                  |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |

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

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

|       |   |                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 1.0   |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10336 | I | TC2                                                              |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10337 | A | Open the circuit breaker 15Q4                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10339 | A | Close the circuit breaker 15Q4                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10341 | A | Open the circuit breaker 13Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10343 | A | Close the circuit breaker 13Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10345 | A | Open the circuit breaker 57Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0 |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10347 | A | Close the circuit breaker 57Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 1.0 |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10349 | A | Open the circuit breaker 72Q1                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 0.0     |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |
| 10351 | A | Close the circuit breaker 72Q1                                   |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 1.0     |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10353 | A | Open the circuit breaker 40Q4                                    |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 0.0      |  | OK | 0 | Sinazo Mkhwa -<br>529940 | Train |

|       |   |                                                                   |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10355 | A | Close the circuit breaker 40Q4                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 1.0       |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10357 | A | Open the circuit breaker 50Q7                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 0.0       |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10359 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 1.0       |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10361 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10363 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10365 | A | Open the circuit breaker 44Q1.                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10368 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10371 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 0.0     |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10373 | A | Close the circuit breaker 72Q2                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 1.0     |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                    |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10375 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10377 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10378 | A | Open the circuit breaker 25Q15                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10380 | A | Close the circuit breaker 25Q15                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10383 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 0.0      |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10386 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 1.0      |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |
| 10389 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 0.0 |  | OK | 0 | Sinazo Mkhwa - 529940 | Train |
| 10392 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Sinazo Mkhwa - 529940 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 1.0 |  | OK | 1 | Sinazo Mkhwa - 529940 | Train |

|       |   |                                                                                       |  |    |   |                          |       |
|-------|---|---------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 1.0                    |  | OK | 1 | Sinazo Mkhwa -<br>529940 | Train |
| 10395 | R | On the Driver's event list, check there are<br>no IOS recorded about circuit breakers |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |
| 10396 | I | End of Test                                                                           |  | OK |   | Sinazo Mkhwa -<br>529940 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

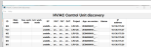
## Section 12 – HVAC Air Conditioning

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### 12.3 Instructions list

### 12.3.1 057\_HVAC-HVAC Air Conditioning

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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | HVAC panel key switch should be in AUTO position for all cars                                                                                                                                                                                                                                 |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Train Prepared in High voltage with active cab on TC1                                                                                                                                                                                                                                         |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Please note that HVAC has protection against too low and too high temperatures. Normally the event that HVAC will be report is BLP when the temperature is too cold, or it will report high duct temperature if the temperature is too hot. It is important to note that this is not a fault. |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | The HVAC parameters are set on the DDU maintenance screen                                                                                                                                                                                                                                     |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Cabin TC1                                                                                                                                                                                                                                                                                     |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | I    | Use the temperature sensor to verify the temperature of the cabin                                                                                                                                                                                                                             |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | I    | Open the Program HCU_finder.exe click on the IP address of a specific car, check the picture attached                                                                                                                                                                                         |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | I    | Check the Steps below and compare with Maintenance software                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | A    | Turn Key 30A1.S1 to Active Cabin Position on TC1                                                                                                                                                                                                                                              |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Select the switch 57S1 to Low-Speed Ventilation                                                                                                                                                                                                                                               |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | A    | Select the switch '57S2' to position 1                                                                                                                                                                                                                                                        |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Temperature is set to 20°C                                                                                                                                                                                                                                                                    |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | A    | Select the switch '57S2' to position 2                                                                                                                                                                                                                                                        |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                                                                         |  |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10015 | R | Temperature is set to 22°C                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10016 | A | Select the switch '57S2' to position 3                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10017 | R | Temperature is set to 24°C                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10018 | A | Select the switch '57S2' to position 4                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10019 | R | Temperature is set to 26°C                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10020 | A | Now select the switch '57S1' to High Ventilation                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10021 | A | Select the switch '57S2' to position 1                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10022 | R | Temperature is set to 20°C                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10023 | A | Select the switch '57S2' to position 2                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10024 | R | Temperature is set to 22°C                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10025 | A | Select the switch '57S2' to position 3                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10026 | R | Temperature is set to 24°C                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10027 | A | Select the switch '57S2' to position 4                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10028 | R | Temperature is set to 26°C                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10029 | I | Cabin HVAC Fault on TC1                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10030 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10031 | A | Trip the Circuit-Breaker F120 to simulate the fault. Located in HVAC Control Panel                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10032 | A | Turn on the cabin HVAC by switch '57S1' and verify on HCU Finder if the operation is according to the selected position |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10033 | R | Operation speed selection is working properly                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10034 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10035 | A | Normalize the Circuit Breaker F120                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                        |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10036 | A | Turn on the cabin HVAC by switch '57S1' and check its behaviour.                                                       |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10037 | I | Cabin Footrest Heater Test on TC1                                                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0                                                   |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10039 | R | Foot Heater is Off                                                                                                     |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10040 | A | Simulate a failure of the heater by opening circuit breaker 57Q2                                                       |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10041 | A | Press the button 57S3                                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10042 | R | Foot Heater is Off                                                                                                     |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 1.0                                                   |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10044 | A | Release '57S3' pushbutton                                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10045 | A | Close circuit breaker 57Q2                                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10046 | A | Press the button 57S3 to activate the foot heater                                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0                                                   |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10048 | R | Foot Heater is ON                                                                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10049 | I | HVAC Saloon TC1                                                                                                        |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10050 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for TC1                                |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10051 | A | On the maintenance software web-browser, clear all the alarms and events for TC1 car                                   |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10052 | A | Launch the HVAC test for TC1 car on the DDU maintenance screen                                                         |  | OK |   | Celiwe Sokhela - 491462 | 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 |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
|       |   | minutes the HVAC mode should change between Ventilation, Heating and Cooling                                                                                                                            |  |    |  |                         |       |
| 10054 | R | After 9 to 12 minutes, the TC1 saloon HVAC test has passed.                                                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10055 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10056 | A | Launch the HVAC test for the TC1 Cab                                                                                                                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10057 | 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 |  | Celiwe Sokhela - 491462 | Train |
| 10058 | R | After 9 to 12 minutes, the TC1 cab HVAC test has passed.                                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10059 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10060 | I | HVAC Saloon M4                                                                                                                                                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10061 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M4                                                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10062 | A | On the maintenance software web-browser, clear all the alarms and events for M4 car                                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10063 | A | Launch the HVAC test for M4 car on the DDU maintenance screen                                                                                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10064 | A | On the maintenance software, check that the HVAC mode for M4 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10065 | R | After 9 to 12 minutes, the M4 saloon HVAC test has passed.                                                                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10066 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                                                                    |  |    |  |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
|       |   | finding.                                                                                                                                                                                           |  |    |  |                         |       |
| 10067 | I | HVAC Saloon M1                                                                                                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10068 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M1                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10069 | A | On the maintenance software web-browser, clear all the alarms and events for M1 car                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10070 | A | Launch the HVAC test for M1 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10071 | 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 |  | Celiwe Sokhela - 491462 | Train |
| 10072 | R | After 9 to 12 minutes, the M1 saloon HVAC test has passed.                                                                                                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10073 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10074 | I | HVAC Saloon M2                                                                                                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10075 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M2                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10076 | A | On the maintenance software web-browser, clear all the alarms and events for M2 car                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10077 | A | Launch the HVAC test for M2 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10078 | 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 |  | Celiwe Sokhela - 491462 | Train |
| 10079 | R | After 9 to 12 minutes, the M2 saloon HVAC test has passed.                                                                                                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10080 | I | If the test has not passed, use the maintenance software to check the alarms                                                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                                                                     |  |    |  |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
|       |   | recorded during testing to help with fault finding.                                                                                                                                                 |  |    |  |                         |       |
| 10081 | I | HVAC Saloon M3                                                                                                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10082 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M3                                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10083 | A | On the maintenance software web-browser, clear all the alarms and events for M3 car                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10084 | A | Launch the HVAC test for M3 car on the DDU maintenance screen                                                                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10085 | 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 |  | Celiwe Sokhela - 491462 | Train |
| 10086 | R | After 9 to 12 minutes, the M3 saloon HVAC test has passed.                                                                                                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10087 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10088 | I | HVAC Saloon TC2                                                                                                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10089 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for TC2                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10090 | A | On the maintenance software web-browser, clear all the alarms and events for TC2 car                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10091 | A | Launch the HVAC test for TC2 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10092 | 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 |  | Celiwe Sokhela - 491462 | Train |
| 10093 | R | After 9 to 12 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10094 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10095 | A | Launch the HVAC test for the TC2 Cab                                                                                                                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10096 | 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 |  | Celiwe Sokhela - 491462 | Train |
| 10097 | R | After 9 to 12 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10098 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10099 | I | Cabin HVAC on TC2                                                                                                                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10100 | I | Use the temperature sensor to verify the temperature of the cabin                                                                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10101 | A | Switch Active cab to TC2                                                                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10102 | I | Check the Steps below and compare with Maintenance software                                                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10103 | A | Select the switch 57S1 to Low-Speed Ventilation                                                                                                                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10104 | A | Select the switch 57S2 to position 1                                                                                                                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10105 | R | Temperature is set to 20°C                                                                                                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10106 | A | Select the switch 57S2 to position 2                                                                                                                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10107 | R | Temperature is set to 22°C                                                                                                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10108 | A | Select the switch 57S2 to position 3                                                                                                                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10109 | R | Temperature is set to 24°C                                                                                                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10110 | A | Select the switch 57S2 to position 4                                                                                                                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                         |  |    |   |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10111 | R | Temperature is set to 26°C                                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10112 | A | Now select the switch '57S1' to High Ventilation                                                                        |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10113 | A | Select the switch '57S2' to position 1                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10114 | R | Temperature is set to 20°C                                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10115 | A | Select the switch '57S2' to position 2                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10116 | R | Temperature is set to 22°C                                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10117 | A | Select the switch '57S2' to position 3                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10118 | R | Temperature is set to 24°C                                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10119 | A | Select the switch '57S2' to position 4                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10120 | R | Temperature is set to 26°C                                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10121 | I | Cabin HVAC Fault on TC2                                                                                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10122 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10123 | A | Trip the Circuit-Breaker F120 to simulate the fault. Located in HVAC Control Panel                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10124 | A | Turn on the cabin HVAC by switch '57S1' and verify on HCU Finder if the operation is according to the selected position |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10125 | R | Operation speed selection is working properly                                                                           |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10126 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10127 | A | Normalize the Circuit Breaker F120                                                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10128 | A | Turn on the cabin HVAC by switch '57S1' and check its behaviour.                                                        |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10129 | I | Cabin Footrest Heater Test on TC2                                                                                       |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 0.0                                                     |  | OK | 0 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                    |                                                                                     |    |   |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10131 | R | Foot Heater is Off                                                                                                 |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10132 | A | Simulate a failure of the heater by opening circuit breaker 57Q2                                                   |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10133 | A | Command '57S3' pushbutton                                                                                          |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 1.0                                                |                                                                                     | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10135 | R | Foot Heater is Off                                                                                                 |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10136 | A | Release '57S3' pushbutton                                                                                          |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10137 | A | Close 57Q2                                                                                                         |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10138 | A | Command '57S3' pushbutton                                                                                          |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 0.0                                                |                                                                                     | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10140 | R | Foot Heater is ON                                                                                                  |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10141 | I | Emergency Ventilation Mode                                                                                         |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10142 | R | All HVACs are working in NORMAL condition                                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10143 | A | Switch off the catenary voltage 3kV                                                                                |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10144 | R | Both Auxiliary Converter stop to work                                                                              |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10145 | R | 400 V AC is not present on train                                                                                   |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10146 | R | No high voltage power is available on HVAC unit to operate Ventilation and Cooling or Heating.                     |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10147 | R | All HVAC units and Cab HVAC units stop                                                                             |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10148 | R | After about 45 seconds without 400V, Auxiliary Converter will generate 400V from Train Batteries with an inverter. |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10149 | R | After this time about (45s) All HVAC units will operate in "Emergency Ventilation"                                 |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                    |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10150 | A | Switch on the 3kV on the catenary                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10151 | R | Now, 400V AC is available by Auxiliary Converter                                                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10152 | R | All HVAC units and Cab HVAC units only operate Ventilation with maximum fresh airflow, Air Extractor are switch ON |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10153 | I | End of Test                                                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |



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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 13 – Pantograph

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### 13.3 Instructions list

### 13.3.1 021\_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            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions                                                                     |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | Main pipe should be 10bar                                                              |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | HSCB is open on M1 and M2 and both pantographs are low                                 |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | Auxiliary Compressor test must be completed in car level prior to performing this test |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | I    | Mechanical pantograph test must be completed prior to performing this test             |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | I    | EARTHING SWITCH T1 is in NORMAL Position on M1                                         |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | I    | EARTHING SWITCH T1 is in NORMAL Position on M2                                         |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | I    | HVB1 valve is in NORMAL position on M1                                                 |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | I    | HVB1 valve is in NORMAL position on M2                                                 |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10011 | I    | Start of Test                                                                          |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | A    | Active Cab on TC1                                                                      |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10013 | I    | Main Tank pressure switch                                                              |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | I    | Make sure the HSCB is open                                                             |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10015 | A    | Empty the main pipe using the cock F2.1/1                                              |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10016 | A    | Connect a manometer on valve K2.8 in M1 and measure the pressure                       |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10017 | A    | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M1              |      | OK            |              | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                                                                                 |  |    |   |                           |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10018 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10019 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10020 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10021 | A | Connect a manometer on valve K2.8 in M2 and measure the pressure                                                                |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10022 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M2 car                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10023 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10024 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10025 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10026 | A | Normalize the main pipe                                                                                                         |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10027 | A | Close the HSCB                                                                                                                  |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10028 | A | Remove the manometer                                                                                                            |  | OK |   | Mphato Mphahlele - 480716 | 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 |   | Mphato Mphahlele - 480716 | Train |
| 10030 | A | Close the circuit breaker 21Q1 in M2                                                                                            |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10031 | R | Auxiliary compressor starts working                                                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr1 = 0.0                                                          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr2 = 0.0                                                          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr1 = 1.0                                                          |  | OK | 1 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr2 =<br>1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10036 | A | Remove the manometer nozzle on M2                                         |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10037 | A | Put HVB1 valve in NORMAL position on<br>M2                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10038 | A | Put the earthing switch in NORMAL<br>position on M2                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10039 | A | Put HVB1 valve in NORMAL position on<br>M1                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10040 | A | Put the earthing switch in NORMAL<br>position on M1                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10041 | I | End of Test                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 14 – Driving Command

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### 14.3 Instructions list

### 14.3.1 030\_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            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10002 | I    | Initial Conditions                                            |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10003 | I    | Train should be prepared with High voltage                    |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10004 | I    | Deadman override switch 60S1 must be in OVERRIDE position     |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10005 | I    | Driving command TC1 side                                      |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10006 | I    | Direction Selector Switch TC1                                 |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10007 | A    | Put the Direction selector switch 30A1.S2 in NEUTRAL position |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10008 | R    | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10009 | R    | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10010 | R    | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10011 | R    | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10012 | R    | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10013 | R    | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10014 | R    | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10015 | R    | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10016 | R    | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 0.0   |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |

|       |   |                                                                  |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10018 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10029 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0                           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0                           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0                           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0                           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10040 | I | Reduced Power Test TC1                                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10041 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10042 | I | Driving mode switch in SPEED CONTROL<br>mode                                    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10045 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10046 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0               |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10049 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10050 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                              |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10053 | A | Put the driving mode switch to EFFORT mode                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10054 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10057 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10060 | I | It not possible to activate reduced power in depot or coupling mode          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10061 | A | Put the driving mode switch to DEPOT mode                                    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10062 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10065 | A | Release the button 30S2                                                      |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10066 | A | Put the driving mode switch to COUPLING mode                                 |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10067 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                             |  |    |   |                             |       |
|-------|---|-----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0          |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10070 | A | Release the button 30S2                                                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10071 | I | Master Controller / No Brake                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10072 | I | The direction selector switch 30A1.S2<br>must be in NEUTRAL position        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10073 | I | The Master controller of Traction/Brake<br>should be on OFF position        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10075 | I | The Traction Interlock Override Switch<br>31S1 should be in NORMAL position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10076 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10077 | R | LED 31H1 is OFF on the alarm module                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10078 | R | LED 44H4 is "ON" on the alarm module                                        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                      |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                      |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                      |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                      |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                           |  |    |      |                             |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|-----------------------------|-------|
| 10087 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10091 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369  |  | OK | 6032 | Sizwe Sibanyoni -<br>484647 | Train |
| 10092 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369  |  | OK | 5936 | Sizwe Sibanyoni -<br>484647 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0           |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0           |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0 |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10101 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position          |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                      |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                          |  |    |      |                          |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|--------------------------|-------|
| 10103 | R | LED 44H4 is OFF on the alarm module                                      |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10104 | R | LED 31H1 is "ON" on the alarm module                                     |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                    |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                    |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10117 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 6032 | Sizwe Sibanyoni - 484647 | Train |
| 10118 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5936 | Sizwe Sibanyoni - 484647 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mtractionr1 = 0.0          |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                                              |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10127 | I | For safety purposes ENSURE that NO one is working NEAR, OUTSIDE or on the DOORS of the Train |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10128 | A | Press Automatic Start Button to Drop the Pantographs                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10129 | A | Timer 15.0 S                                                                                 |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10134 | A | Put the Master controller of Traction/Brake in 100% TRACTION position                        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                                        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                             |  |    |       |                             |       |
|-------|---|-----------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 1.0                       |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(BCU1)LI_noBrake = 1.0                        |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)LI_noBrake = 1.0                        |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                       |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                       |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                       |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                       |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10147 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoositionch1 :<br>29183<= x <= 31102 |  | OK | 30944 | Sizwe Sibanyoni -<br>484647 | Train |
| 10148 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoositionch2 :<br>29183<= x <= 31102 |  | OK | 30816 | Sizwe Sibanyoni -<br>484647 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractio1 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractio2 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0               |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0               |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                           |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10157 | A | Put the Master controller of<br>Traction/Brake in OFF position            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                      |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                      |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                           |  |    |      |                             |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|-----------------------------|-------|
| 10170 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369  |  | OK | 6032 | Sizwe Sibanyoni -<br>484647 | Train |
| 10171 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369  |  | OK | 5936 | Sizwe Sibanyoni -<br>484647 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0           |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0           |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10179 | A | Put the direction selector switch in<br>REVERSE position                  |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10180 | A | Put the Master controller of<br>Traction/Brake in 100% BRAKE position     |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                            |  |    |       |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10186 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10193 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30768 | Sizwe Sibanyoni -<br>484647 | Train |
| 10194 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30816 | Sizwe Sibanyoni -<br>484647 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0            |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0            |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0  |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10202 | R | Read Defined Variable [TT]                                                 |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                         |  |    |       |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|-------|--------------------------|-------|
|       |   | (MPU1)li_drc_tc1mcemergencybraker2 = 0.0                                |  |    |       |                          |       |
| 10203 | A | Put the Master controller of Traction/Brake in EMERGENCY BRAKE position |  | OK |       | Sizwe Sibanyoni - 484647 | Train |
| 10204 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0                      |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10205 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0                      |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10206 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10207 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10208 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10209 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10210 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10211 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10212 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10213 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10214 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10215 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |
| 10216 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch1 : 29183<= x <= 31102    |  | OK | 30944 | Sizwe Sibanyoni - 484647 | Train |
| 10217 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch2 : 29183<= x <= 31102    |  | OK | 30816 | Sizwe Sibanyoni - 484647 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractonr1 = 0.0            |  | OK | 0     | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                           |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10226 | I | Driving command TC2 side                                                  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10227 | I | Direction Selector Switch TC2                                             |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10228 | A | Switch active cab to TC2                                                  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10229 | A | Press 21S1 to raise the Pantographs                                       |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10230 | A | Press 22S11 to close the HSCB                                             |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10231 | A | Put the Direction selector switch 30A1.S2<br>in NEUTRAL position          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                  |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10237 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10240 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10249 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0            |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10254 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0                           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0                           |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0                           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10258 | A | Put Master Controller in OFF position                                           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10259 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10260 | I | Reduced Power Test TC2                                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10261 | A | Put the driving mode switch in SPEED<br>CONTROL mode                            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10262 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlamp1 = 1.0                |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10265 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10266 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10267 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlamp1 = 0.0                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10270 | A | Put the driving mode switch to EFFORT<br>mode                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10271 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0               |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10274 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10276 | I | It not possible to activate reduced power<br>in depot or coupling mode          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10277 | A | Put the driving mode switch to DEPOT<br>mode                                    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10278 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10281 | A | Release the button 30S2                                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10282 | A | Put the driving mode switch to COUPLING<br>mode                                 |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10283 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10286 | A | Release the button 30S2                                                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10287 | I | Master Controller/ No Brake                                                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10288 | I | The direction selector switch 30A1.S2<br>must be in NEUTRAL position            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10289 | I | The Master controller of Traction/Brake<br>should be on OFF position            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                          |  |    |      |                          |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|--------------------------|-------|
| 10290 | I | Emergency Brake must be applied                                          |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10291 | I | All doors should be closed                                               |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10292 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10293 | R | LED 31H1 is OFF on the alarm module                                      |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10294 | R | LED 44H4 is "ON" on the alarm module                                     |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                    |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                    |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10307 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5920 | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                           |  |    |      |                             |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|-----------------------------|-------|
| 10308 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369  |  | OK | 5968 | Sizwe Sibanyoni -<br>484647 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractionr1 = 0.0          |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractionr2 = 0.0          |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0             |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0 |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0 |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10317 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position          |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10318 | I | No emergency brake is applied                                             |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10319 | R | LED 44H4 is OFF on the alarm module                                       |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10320 | R | LED 31H1 is "ON" on the alarm module                                      |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10321 | R | Relay 31K1 and 31K2 are energized                                         |  | OK |      | Sizwe Sibanyoni -<br>484647 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                          |  |    |      |                             |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|-----------------------------|-------|
| 10325 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sizwe Sibanyoni -<br>484647 | Train |
| 10334 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5920 | Sizwe Sibanyoni -<br>484647 | Train |
| 10335 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5968 | Sizwe Sibanyoni -<br>484647 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0          |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0          |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0            |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0            |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0            |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0            |  | OK | 0    | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                              |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0                       |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0                       |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10344 | I | For safety purposes ENSURE that NO one is working NEAR, OUTSIDE or on the DOORS of the Train |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10345 | A | Press Automatic Start Button to Drop the Pantographs                                         |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10346 | A | Timer 15.0 S                                                                                 |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10349 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                              |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10351 | A | Put the Master controller of Traction/Brake in 100% TRACTION position                        |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                                        |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                                        |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                                       |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                                       |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                                       |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                                       |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                            |  |    |       |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10358 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                       |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                       |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10361 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10364 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30832 | Sizwe Sibanyoni -<br>484647 | Train |
| 10365 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30896 | Sizwe Sibanyoni -<br>484647 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 1.0            |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 1.0            |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0              |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0              |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0  |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0  |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                   |  |    |      |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|------|--------------------------|-------|
| 10374 | A | Put the Master controller of Traction/Brake in OFF position       |  | OK |      | Sizwe Sibanyoni - 484647 | Train |
| 10375 | R | Read Defined Variable [TT] (BCU1) Li_Traction = 0.0               |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10376 | R | Read Defined Variable [TT] (BCU2) Li_Traction = 0.0               |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10377 | R | Read Defined Variable [TT] (TBCU1) LI_TRACTION = 0.0              |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10378 | R | Read Defined Variable [TT] (TBCU2) LI_TRACTION = 0.0              |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10379 | R | Read Defined Variable [TT] (TBCU3) LI_TRACTION = 0.0              |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10380 | R | Read Defined Variable [TT] (TBCU4) LI_TRACTION = 0.0              |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10381 | R | Read Defined Variable [TT] (BCU1) Li_noBrake = 1.0                |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10382 | R | Read Defined Variable [TT] (BCU2) Li_noBrake = 1.0                |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10383 | R | Read Defined Variable [TT] (TBCU1) LI_NOBRAKE = 1.0               |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10384 | R | Read Defined Variable [TT] (TBCU2) LI_NOBRAKE = 1.0               |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10385 | R | Read Defined Variable [TT] (TBCU3) LI_NOBRAKE = 1.0               |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10386 | R | Read Defined Variable [TT] (TBCU4) LI_NOBRAKE = 1.0               |  | OK | 1    | Sizwe Sibanyoni - 484647 | Train |
| 10387 | R | Read Min/Max [TT] (MPU1) ai_drc_tc2mcpotionch1 : 5479<= x <= 6369 |  | OK | 5920 | Sizwe Sibanyoni - 484647 | Train |
| 10388 | R | Read Min/Max [TT] (MPU1) ai_drc_tc2mcpotionch2 : 5479<= x <= 6369 |  | OK | 5968 | Sizwe Sibanyoni - 484647 | Train |
| 10389 | R | Read Defined Variable [TT] (MPU1) li_drc_tc2mctractonr1 = 0.0     |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |
| 10390 | R | Read Defined Variable [TT] (MPU1) li_drc_tc2mctractonr2 = 0.0     |  | OK | 0    | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0          |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0          |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0          |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0          |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10397 | A | Put the Master controller of<br>Traction/Brake in 100% BRAKE position  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                               |  |    |       |                             |       |
|-------|---|-------------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10408 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10409 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                         |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10410 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102    |  | OK | 30832 | Sizwe Sibanyoni -<br>484647 | Train |
| 10411 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102    |  | OK | 30896 | Sizwe Sibanyoni -<br>484647 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0               |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0               |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0                 |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0                 |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0                 |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0                 |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0     |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0     |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10420 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |       | Sizwe Sibanyoni -<br>484647 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                            |  |    |       |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10424 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10428 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10429 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10430 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10431 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10432 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10433 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30848 | Sizwe Sibanyoni -<br>484647 | Train |
| 10434 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30896 | Sizwe Sibanyoni -<br>484647 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0            |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0            |  | OK | 0     | Sizwe Sibanyoni -<br>484647 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10438 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0              |  | OK | 1     | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                           |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10443 | A | Put the Master controller of<br>Traction/Brake in OFF position            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10444 | A | Put the direction switch to NEUTRAL<br>position                           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10445 | A | Close HSCB using button 22S11                                             |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10446 | I | End of Test                                                               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 15 – Holding and Parking Brake

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### 15.3 Instructions list

### 15.3.1 045\_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            |              | Mphato Mphahlele - 480716    | Train   |
| 10002 | I    | Initial Conditions                                                                       |      | OK            |              | Mphato Mphahlele - 480716    | Train   |
| 10003 | I    | Train must be properly scotched with sufficient scotch blocked to prevent it from moving |      | OK            |              | Nhlakanipho Masondo - 447208 | Train   |
| 10004 | I    | Automatic parking brake application                                                      |      | OK            |              | Nhlakanipho Masondo - 447208 | Train   |
| 10005 | I    | Train in LV ready with active cab on TC1                                                 |      | OK            |              | Nhlakanipho Masondo - 447208 | Train   |
| 10006 | A    | Release parking brake using the switch 45S1                                              |      | OK            |              | Nhlakanipho Masondo - 447208 | Train   |
| 10007 | R    | Verify on the DDU that all cars have parking brake released                              |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10008 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10009 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10010 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10011 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                         |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10012 | A    | Drain the air from the main pipe until it reaches 0bar                                   |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10013 | R    | Main pipe pressure is 0bar on the Pneumatic indicator                                    |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10014 | R    | Verify on the DDU that all cars have parking brake applied                               |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10015 | R    | Lamp 45H2 is "ON" on the alarm module                                                    |      | OK            |              | Celiwe Sokhela - 491462      | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                         |      | OK            | 0            | Celiwe Sokhela - 491462      | Train   |

|       |   |                                                                   |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakerelease = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeRelease = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakerelease = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1__li__pbrake__stat = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__li__pbrake__stat = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__li__pbrake__stat = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__li__pbrake__stat = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeIsolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakeisolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakeisolDC = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(BCU1)LI__PARK__BR__DC = 0.0        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(BCU2)LI__PARK__BR__DC = 0.0        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                               |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_RELEASE = 0.0                                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10038 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10039 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10040 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10041 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10042 | A | Press the automatic start button 20S1                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10045 | R | After 10 minutes, the air in the main pipe<br>is 10bar +/-0.2bar                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10046 | A | Turn the switch 45S1 to release parking<br>brake                                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10047 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10048 | I | Parking brake is released in all cars                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10049 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10050 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                   |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakerelease = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakerelease = 1.0  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeRelease = 1.0  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakerelease = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakerelease = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1__li__pbrake__stat = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__li__pbrake__stat = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__li__pbrake__stat = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__li__pbrake__stat = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeIsolDC = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakeisoldc = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(BCU1)LI__PARK__BR__DC = 0.0        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(BCU2)LI__PARK__BR__DC = 0.0        |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                           |  |    |       |                            |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10069 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10073 | I | Remote parking brake application TC1                                                                                      |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10074 | A | Turn the switch 45S1 to parking brake<br>release                                                                          |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10075 | R | Lamp 45H2 is OFF on the alarm module                                                                                      |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10076 | R | Measure the pressure of the test point<br>C1.11 on TC1, test point must be set to 6<br>bar<br>Read Undefined Value : x () |  | OK | 5.927 | Celiwe Sokhela -<br>491462 | Train |
| 10077 | R | Measure the pressure of the test point<br>C2.11 on M4, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 6.038 | Celiwe Sokhela -<br>491462 | Train |
| 10078 | R | Measure the pressure of the test point<br>C2.11 on M1, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 5.755 | Celiwe Sokhela -<br>491462 | Train |
| 10079 | R | Measure the pressure of the test point<br>C2.11 on M2, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 5.827 | Celiwe Sokhela -<br>491462 | Train |
| 10080 | R | Measure the pressure of the test point<br>C2.11 on M3, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 6.17  | Celiwe Sokhela -<br>491462 | Train |
| 10081 | R | Measure the pressure of the test point<br>C1.11 on TC2, test point must be set to 6<br>bar<br>Read Undefined Value : x () |  | OK | 5.972 | Celiwe Sokhela -<br>491462 | Train |
| 10082 | A | Turn the switch 45S1 to apply parking<br>brake                                                                            |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10083 | R | Lamp 45H2 is ON on the alarm module                                                                                       |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10084 | R | Measure the pressure of the test point<br>C1.11 on TC1, test point must below 4.8<br>bar<br>Result Max : x <= 5 (Bar)     |  | OK | 1.75  | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                 |  |    |       |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------|--|----|-------|---------------------------|-------|
| 10085 | R | Measure the pressure of the test point C1.11 on M4, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)  |  | OK | 1.894 | Celiwe Sokhela - 491462   | Train |
| 10086 | R | Measure the pressure of the test point C2.11 on M1, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)  |  | OK | 1.994 | Celiwe Sokhela - 491462   | Train |
| 10087 | R | Measure the pressure of the test point C2.11 on M2, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)  |  | OK | 2.199 | Celiwe Sokhela - 491462   | Train |
| 10088 | R | Measure the pressure of the test point C2.11 on M3, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)  |  | OK | 1.997 | Simphiwe Mkhonto - 463555 | Train |
| 10089 | R | Measure the pressure of the test point C1.11 on TC2, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar) |  | OK | 1.855 | Celiwe Sokhela - 491462   | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                                                |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                                                |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0                                                 |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0                                                 |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0                                                |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0                                                |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0                                                  |  | OK | 0     | Celiwe Sokhela - 491462   | Train |

|       |   |                                                                   |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0   |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0           |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10112 | I | Parking brake manual isolation                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10113 | I | TC1                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10114 | A | Put the switch C1.3.2 in ISOLATION<br>position on TC1             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 1.0    |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 1.0           |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                             |  |    |   |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10119 | A | Put the switch C1.3.2 in NORMAL position on TC1                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10120 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_RELEASE = 0.0                                                                   |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10121 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working) |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc1parkbrakeisdc = 0.0                                                              |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisoldc = 0.0                                                                 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10124 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_DC = 0.0                                                                        |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10125 | I | M4                                                                                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10126 | A | Put the switch C2.3.2 for in ISOLATION position                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10127 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                  |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)li_pbk_m4parkbrakeisdc = 1.0                                                               |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisoldc = 1.0                                                                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10130 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_DC = 1.0                                                                       |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10131 | A | Put the switch C2.3.2 in NORMAL position on M4                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10132 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                  |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10133 | R | Verify on the DDU that parking brake is still released                                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10134 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working) |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)li_pbk_m4parkbrakeisdc = 0.0                                                               |  | OK | 0 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                  |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10138 | I | M1                                                                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10139 | A | Put the switch C2.3.2 for in ISOLATION<br>position                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10143 | A | Put the switch C2.3.2 in NORMAL<br>position on M1                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10144 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 0.0                                                                 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10148 | I | M2                                                                                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10149 | A | Put the switch C2.3.2 in ISOLATION<br>position on M2                                                                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 1.0                                                                 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                            |  |    |   |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10153 | A | Put the cock C2.3.2 for in NORMAL position on M2                                                                           |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10154 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 0.0                                                           |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                                                            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                   |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10158 | I | M3                                                                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10159 | A | Put the switch C2.3.2 in ISOLATION position on M3                                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 1.0                                                           |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 1.0                                                            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 1.0                                                                   |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10163 | A | Put the cock C2.3.2 for in NORMAL position on M3                                                                           |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10164 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 0.0                                                           |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0                                                            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10167 | I | TC2                                                                                                                        |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10168 | A | Put the switch C1.3.2 in ISOLATION position on TC2                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                                                   |  | OK | 0 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                   |  |    |       |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 1.0                                                                    |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc2parkbrakeisol = 1.0                                                                 |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 1.0                                                                           |  | OK | 1     | Celiwe Sokhela -<br>491462 | Train |
| 10173 | A | Put the switch C1.3.2 in NORMAL<br>position on TC2                                                                                |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_RELEASE = 0.0                                                                      |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10175 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working) |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0                                                                    |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc2parkbrakeisol = 0.0                                                                 |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10178 | I | Remote parking brake application TC2                                                                                              |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0                                                                           |  | OK | 0     | Celiwe Sokhela -<br>491462 | Train |
| 10180 | A | Switch active cab to TC2                                                                                                          |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10181 | A | Turn the switch 45S1 to apply parking<br>brake                                                                                    |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10182 | R | Lamp 45H2 is ON on the alarm module                                                                                               |  | OK |       | Celiwe Sokhela -<br>491462 | Train |
| 10183 | R | Measure the pressure of the test point<br>C1.11 on TC1, test point must be set to<br>4.8 bar<br>Read Undefined Value : x (Bar)    |  | OK | 1.75  | Celiwe Sokhela -<br>491462 | Train |
| 10184 | R | Measure the pressure of the test point<br>C2.11 on M4, test point must be set to 4.8<br>bar<br>Read Undefined Value : x (Bar)     |  | OK | 1.894 | Celiwe Sokhela -<br>491462 | Train |
| 10185 | R | Measure the pressure of the test point<br>C2.11 on M1, test point must be set to 4.8<br>bar<br>Read Undefined Value : x (Bar)     |  | OK | 1.994 | Celiwe Sokhela -<br>491462 | Train |
| 10186 | R | Measure the pressure of the test point<br>C2.11 on M2, test point must be set to 4.8<br>bar<br>Read Undefined Value : x (Bar)     |  | OK | 2.199 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                          |  |    |       |                           |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------|--|----|-------|---------------------------|-------|
| 10187 | R | Measure the pressure of the test point C2.11 on M3, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 1.997 | Simphiwe Mkhonto - 463555 | 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 | 1.855 | Celiwe Sokhela - 491462   | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                                                         |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                                                         |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0                                                          |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0                                                          |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0                                                         |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0                                                         |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Celiwe Sokhela - 491462   | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0                                                           |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                                                          |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                                                          |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0                                                           |  | OK | 0     | Celiwe Sokhela - 491462   | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0                                                          |  | OK | 0     | Celiwe Sokhela - 491462   | Train |

|       |   |                                                                                               |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0                               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10205 | A | Turn the switch 45S1 to release parking<br>brake                                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10206 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10207 | I | Parking brake is released in all cars                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10208 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                               |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                               |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0                              |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0                                |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                               |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakeisoldc = 0.0  |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakeisoldc = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakeisoldc = 0.0 |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10225 | I | End of Test                                                      |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 16 – Fire Detection

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### 16.3 Instructions list

### 16.3.1 067\_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            |              | Nqobile Chirwa - 484648            | Train   |
| 10002 | I    | Start of Test                                                              |      | OK            |              | Nqobile Chirwa - 484648            | Train   |
| 10003 | A    | Turn the key to Active cab                                                 |      | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10004 | A    | Close the battery contactor 18S1                                           |      | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage |      | OK            |              | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                     |      | OK            | 1            | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10007 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                      |      | OK            | 2            | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)NET_FDCUPresCIP = 1.0                  |      | OK            | 1            | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireSystemOk = 1.0                 |      | OK            | 1            | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireLocation = 1.0                 |      | OK            | 1            | Hlawulani Nick Mabundzane - 418320 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                       |      | OK            | 0            | Nqobile Chirwa - 484648            | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data2 = 0.0                       |      | OK            | 0            | Nqobile Chirwa - 484648            | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data3 = 0.0                       |      | OK            | 0            | Nqobile Chirwa - 484648            | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_DiagData = 0.0                    |      | OK            | 0            | Nqobile Chirwa - 484648            | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                     |      | OK            | 17           | Nqobile Chirwa - 484648            | Train   |
| 10016 | I    | Fire Detection Simulation test in Saloon                                   |      | OK            |              | Nqobile Chirwa - 484648            | Train   |

|       |   |                                                                                                                               |                                                                                   |    |    |                                    |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----|------------------------------------|-------|
| 10017 | I | In order to see the CCTV footage where fire was simulated, navigate through the ISO event.                                    |                                                                                   | OK |    | Hlawulani Nick Mabundzane - 418320 | Train |
| 10018 | I | Both cameras will be activated when a fire is detected in the saloon                                                          |                                                                                   | OK |    | Hlawulani Nick Mabundzane - 418320 | Train |
| 10019 | I | All HVACs are operational                                                                                                     |  | OK |    | Hlawulani Nick Mabundzane - 418320 | Train |
| 10020 | I | TC1                                                                                                                           |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10021 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC1 cab for at least 1s                                |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10022 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10023 | R | HVAC stops working in the cab and TC1 saloon                                                                                  |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                                                           |                                                                                   | OK | 49 | Nqobile Chirwa - 484648            | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1.0                                                                             |                                                                                   | OK | 1  | Nqobile Chirwa - 484648            | Train |
| 10026 | A | Reset the fire detection loop on the DDU                                                                                      |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10027 | R | 67H1 turns OFF on the Alarm Module and NO fire detected on the DDU                                                            |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10028 | R | The HVAC of TC1 Cab and Saloon starts working in normal condition                                                             |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                                                             |                                                                                   | OK | 0  | Hlawulani Nick Mabundzane - 418320 | 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 |    | Nqobile Chirwa - 484648            | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                                                           |                                                                                   | OK | 17 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10032 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC1 car for at least 1s                                |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |
| 10033 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on                                                   |                                                                                   | OK |    | Nqobile Chirwa - 484648            | Train |

|       |   |                                                                                                |  |    |    |                                    |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|----|------------------------------------|-------|
|       |   | the DDU                                                                                        |  |    |    |                                    |       |
| 10034 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                 |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10035 | R | HVAC stop working in TC1 saloon.                                                               |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                            |  | OK | 49 | Nqobile Chirwa - 484648            | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2.0                                              |  | OK | 2  | Nqobile Chirwa - 484648            | Train |
| 10038 | A | Reset the fire detection loop on the DDU                                                       |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10039 | R | HVAC starts working in TC1 saloon                                                              |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10040 | R | Camera footage disappears from the DDU screen                                                  |  | OK |    | Hlawulani Nick Mabundzane - 418320 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                              |  | OK | 0  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                            |  | OK | 17 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10043 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC1 car for at least 1s |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10044 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU            |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10045 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                 |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10046 | R | HVAC stop working in TC1 saloon                                                                |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                            |  | OK | 49 | Nqobile Chirwa - 484648            | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4.0                                              |  | OK | 4  | Nqobile Chirwa - 484648            | Train |
| 10049 | A | Reset the fire detection loop on the DDU                                                       |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10050 | R | HVAC starts working in TC1 saloon                                                              |  | OK |    | Nqobile Chirwa - 484648            | Train |

|       |   |                                                                                               |  |    |    |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|----|------------------------------------|-------|
| 10051 | R | Camera footage disappears from the DDU screen                                                 |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10053 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10054 | I | M4 car Test                                                                                   |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10055 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M4 car for at least 1s |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10056 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10057 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10058 | R | HVAC unit stop in M4 saloon.                                                                  |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49 | Nqobile Chirwa - 484648            | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32.0                                            |  | OK | 32 | Nqobile Chirwa - 484648            | Train |
| 10061 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10062 | R | HVAC starts working in the saloon                                                             |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10063 | R | Camera footage disappears from the DDU screen                                                 |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10066 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M4 car for at least 1s |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10067 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Nqobile Chirwa - 484648            | Train |

|       |   |                                                                                               |  |    |     |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|-----|------------------------------------|-------|
| 10068 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10069 | R | HVAC stop working in the saloon                                                               |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49  | Nqobile Chirwa - 484648            | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 64.0                                            |  | OK | 64  | Nqobile Chirwa - 484648            | Train |
| 10072 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10073 | R | HVAC starts working in M4 saloon                                                              |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10074 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10077 | I | M1 car                                                                                        |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10078 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M1 car for at least 1s |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10079 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10080 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10081 | R | HVAC stop working on M1                                                                       |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49  | Nqobile Chirwa - 484648            | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 256.0                                           |  | OK | 256 | Nqobile Chirwa - 484648            | Train |
| 10084 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10085 | R | HVAC starts working in M1 saloon                                                              |  | OK |     | Nqobile Chirwa - 484648            | Train |

|       |   |                                                                                               |  |    |     |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|-----|------------------------------------|-------|
| 10086 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10089 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M1 car for at least 1s |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10090 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10091 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10092 | R | HVAC stop working in M1 saloon.                                                               |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49  | Nqobile Chirwa - 484648            | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 512.0                                           |  | OK | 512 | Nqobile Chirwa - 484648            | Train |
| 10095 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10096 | R | HVAC starts working in M1 saloon                                                              |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10097 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10100 | I | M2 car Test                                                                                   |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10101 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M2 for at least 1s     |  | OK |     | Nqobile Chirwa - 484648            | Train |
| 10102 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU            |  | OK |     | Nqobile Chirwa - 484648            | Train |

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|-------|---|-------------------------------------------------------------------------------------------|--|----|------|------------------------------------|-------|
| 10103 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10104 | R | HVAC stop working in M2                                                                   |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Nqobile Chirwa - 484648            | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4096.0                                      |  | OK | 4096 | Nqobile Chirwa - 484648            | Train |
| 10107 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10108 | R | HVAC starts working in M2                                                                 |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10109 | R | Camera footage disappears from DDU screen                                                 |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0    | Hlawulani Nick Mabundzane - 418320 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Hlawulani Nick Mabundzane - 418320 | Train |
| 10112 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M2 for at least 1s |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10113 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10114 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10115 | R | HVAC stop working                                                                         |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Nqobile Chirwa - 484648            | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2048.0                                      |  | OK | 2048 | Nqobile Chirwa - 484648            | Train |
| 10118 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10119 | R | HVAC starts working in M2                                                                 |  | OK |      | Nqobile Chirwa - 484648            | Train |
| 10120 | R | Camera footage disappears from the DDU screen                                             |  | OK |      | Nqobile Chirwa - 484648            | Train |

|       |   |                                                                                                 |  |    |       |                                       |       |
|-------|---|-------------------------------------------------------------------------------------------------|--|----|-------|---------------------------------------|-------|
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                            |  | OK | 0     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                          |  | OK | 17    | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10123 | I | M3 car Test                                                                                     |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10124 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A3 on M3 for at least<br>1s |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10125 | R | The CCTV footage showing M3 saloon<br>where the fire was detected is shown on<br>the DDU        |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10126 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location               |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10127 | R | HVAC stop working in M3                                                                         |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                          |  | OK | 49    | Nqobile Chirwa -<br>484648            | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 32768.0                                        |  | OK | 32768 | Nqobile Chirwa -<br>484648            | Train |
| 10130 | A | Reset the fire detection loop on the DDU                                                        |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10131 | R | HVAC starts working in M3                                                                       |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10132 | R | Camera footage disappears from the DDU<br>screen                                                |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                            |  | OK | 0     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                          |  | OK | 17    | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10135 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on M3 for at least<br>1s |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10136 | R | The CCTV footage showing M3 saloon<br>where the fire was detected is shown on<br>the DDU        |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10137 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location               |  | OK |       | Nqobile Chirwa -<br>484648            | Train |

|       |   |                                                                                            |  |    |        |                                    |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|------------------------------------|-------|
| 10138 | R | HVAC stop working in M3                                                                    |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                     |  | OK | 49     | Nqobile Chirwa - 484648            | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16384.0                                   |  | OK | 16384  | Nqobile Chirwa - 484648            | Train |
| 10141 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10142 | R | HVAC starts working in M3                                                                  |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10143 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                       |  | OK | 0      | Hlawulani Nick Mabundzane - 418320 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                     |  | OK | 17     | Hlawulani Nick Mabundzane - 418320 | Train |
| 10146 | I | TC2                                                                                        |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10147 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC2 for at least 1s |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10148 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10149 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10150 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                     |  | OK | 49     | Nqobile Chirwa - 484648            | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 524288.0                                  |  | OK | 524288 | Nqobile Chirwa - 484648            | Train |
| 10153 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10154 | R | HVAC starts working in TC2                                                                 |  | OK |        | Nqobile Chirwa - 484648            | Train |
| 10155 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Nqobile Chirwa - 484648            | Train |

|       |   |                                                                                                      |  |    |        |                                       |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|--------|---------------------------------------|-------|
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10158 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on TC2 for at<br>least 1s     |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10159 | R | The CCTV footage showing TC2 saloon<br>where the fire was detected is shown on<br>the DDU            |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10160 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10161 | R | HVAC stops working in TC2 saloon                                                                     |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49     | Nqobile Chirwa -<br>484648            | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 262144.0                                            |  | OK | 262144 | Nqobile Chirwa -<br>484648            | Train |
| 10164 | A | Reset the fire detection loop on the DDU                                                             |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10165 | R | HVAC starts working in TC2                                                                           |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10166 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10169 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A4 on TC2 cab for at<br>least 1s |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10170 | R | 67H1 becomes "ON" on the Alarm Module<br>of TC2 and TC1, and the DDU also shows<br>the fire location |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10171 | R | HVAC stops working in TC2 saloon                                                                     |  | OK |        | Nqobile Chirwa -<br>484648            | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49     | Nqobile Chirwa -<br>484648            | Train |

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|-------|---|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---------|---------------------------------------|-------|
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 131072.0                         |                                                                                   | OK | 131072  | Nqobile Chirwa -<br>484648            | Train |
| 10174 | A | Reset the fire detection loop on the DDU                                          |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10175 | R | HVAC starts working in TC2                                                        |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |                                                                                   | OK | 0       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |                                                                                   | OK | 17      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10178 | I | Fire Detection Simulation Underframe                                              |  | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10179 | I | TC2 ACU Test                                                                      |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10180 | A | Toggle the switch to activate a fire in the<br>ACU                                |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10181 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10182 | R | Read Undefined Variable [TT]<br>(MPU1)FDCU_Data1                                  |                                                                                   | OK | 2097152 | Nqobile Chirwa -<br>484648            | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0                     |                                                                                   | OK | 0       | Nqobile Chirwa -<br>484648            | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                     |                                                                                   | OK | 1       | Nqobile Chirwa -<br>484648            | Train |
| 10185 | A | Remove the switch and put back the cover                                          |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10186 | A | Reset the fire detection loop from the<br>DDU                                     |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |                                                                                   | OK | 0       | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |                                                                                   | OK | 17      | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10189 | I | M3 car propulsion box                                                             |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10190 | A | Toggle the switch to activate a fire in M3<br>propulsion box                      |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |
| 10191 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |                                                                                   | OK |         | Nqobile Chirwa -<br>484648            | Train |

|       |   |                                                                                   |  |    |       |                                       |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|-------|---------------------------------------|-------|
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 65536.0                          |  | OK | 65536 | Nqobile Chirwa -<br>484648            | Train |
| 10193 | R | Confirm that the value above is 65536                                             |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10194 | A | Remove the switch and put back the cover                                          |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10195 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10198 | I | M2 car propulsion box                                                             |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10199 | A | Toggle the switch to activate a fire in M2<br>propulsion box                      |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10200 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 8192.0                           |  | OK | 8192  | Nqobile Chirwa -<br>484648            | Train |
| 10202 | A | Remove the switch and put back the cover                                          |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10203 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10206 | I | M1 car propulsion box                                                             |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10207 | A | Toggle the switch to activate a fire in M1<br>propulsion box                      |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10208 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Nqobile Chirwa -<br>484648            | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 1024.0                           |  | OK | 1024  | Nqobile Chirwa -<br>484648            | Train |

|       |   |                                                                                   |  |    |     |                                       |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|-----|---------------------------------------|-------|
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                     |  | OK | 1   | Nqobile Chirwa -<br>484648            | Train |
| 10211 | A | Remove the switch and put back the cover                                          |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10212 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10215 | I | M4 Propulsion box                                                                 |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10216 | A | Toggle the switch to activate a fire in M4<br>Propulsion box                      |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10217 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 128.0                            |  | OK | 128 | Nqobile Chirwa -<br>484648            | Train |
| 10219 | A | Remove the switch and put back the cover                                          |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10220 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17  | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10223 | I | TC1 ACU Test                                                                      |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10224 | A | Toggle the switch in TC1 to activate a fire<br>in the ACU                         |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10225 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |     | Nqobile Chirwa -<br>484648            | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16.0                             |  | OK | 16  | Nqobile Chirwa -<br>484648            | Train |
| 10227 | A | Remove the switch and put back the cover                                          |  | OK |     | Nqobile Chirwa -<br>484648            | Train |

|       |   |                                                               |  |    |    |                                    |       |
|-------|---|---------------------------------------------------------------|--|----|----|------------------------------------|-------|
| 10228 | A | Reset the fire detection loop from the DDU                    |  | OK |    | Nqobile Chirwa - 484648            | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0          |  | OK | 0  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0        |  | OK | 17 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10231 | A | Close the HSCB                                                |  | OK |    | Hlawulani Nick Mabundzane - 418320 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0 |  | OK | 0  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0 |  | OK | 0  | Hlawulani Nick Mabundzane - 418320 | Train |
| 10234 | I | End of Test                                                   |  | OK |    | Hlawulani Nick Mabundzane - 418320 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 17 – Service Brake

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### 17.3 Instructions list

### 17.3.2 040\_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            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions                                                                         |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | Car suspension is not isolated in all cars                                                 |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | Air in main pipe is 10 bar                                                                 |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | TC1                                                                                        |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 312.7        | Mphato Mphahlele - 480716 | Train   |
| 10007 | R    | Read Min/Max [TT]<br>(MPU1)bcu1_bcususppress : 311<= x <= 371                              |      | OK            | 311          | Mphato Mphahlele - 480716 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspisodc = 0.0                                   |      | OK            | 0            | Mphato Mphahlele - 480716 | Train   |
| 10009 | A    | Close the isolation cock C1.10                                                             |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspisodc = 1.0                                   |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10011 | R    | Check Pressure on test point C1.11.2 = 0bar<br>Read Undefined Value : x ()                 |      | OK            | 0.02         | Mphato Mphahlele - 480716 | Train   |
| 10012 | A    | Open the isolation cock C1.10                                                              |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10013 | A    | Check all test point covers have been put back in place in the brake panel and suspension. |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | I    | M4                                                                                         |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10015 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 268.7        | Mphato Mphahlele - 480716 | Train   |
| 10016 | R    | Read Min/Max [TT]<br>(MPU1)tbcu4_bcususppress : 260<= x <= 320                             |      | OK            | 270          | Mphato Mphahlele - 480716 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspisodc = 0.0                                  |      | OK            | 0            | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                                            |  |    |       |                           |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|-------|---------------------------|-------|
| 10018 | A | Close the isolation cock C2.10                                                             |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10019 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0.02  | Mphato Mphahlele - 480716 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 1.0                                   |  | OK | 1     | Mphato Mphahlele - 480716 | Train |
| 10021 | A | Open the isolation cock C2.10                                                              |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10022 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10023 | I | M1                                                                                         |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10024 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 293.3 | Mphato Mphahlele - 480716 | Train |
| 10025 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcususppress : 271<= x <= 331                             |  | OK | 295   | Mphato Mphahlele - 480716 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 0.0                                   |  | OK | 0     | Mphato Mphahlele - 480716 | Train |
| 10027 | A | Close the isolation cock C2.10                                                             |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10028 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0.02  | Mphato Mphahlele - 480716 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 1.0                                   |  | OK | 1     | Mphato Mphahlele - 480716 | Train |
| 10030 | A | Open the isolation cock C2.10                                                              |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10031 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10032 | I | M2                                                                                         |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10033 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 283.6 | Mphato Mphahlele - 480716 | Train |
| 10034 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcususppress : 271<= x <= 331                             |  | OK | 285   | Mphato Mphahlele - 480716 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 0.0                                   |  | OK | 0     | Mphato Mphahlele - 480716 | Train |
| 10036 | A | Close the isolation cock C2.10                                                             |  | OK |       | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                            |  |    |       |                           |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|-------|---------------------------|-------|
| 10037 | R | Check Pressure on test point C2.11.2 = 0bar<br>Read Undefined Value : x ()                 |  | OK | 0.02  | Mphato Mphahlele - 480716 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 1.0                                   |  | OK | 1     | Mphato Mphahlele - 480716 | Train |
| 10039 | A | Open the isolation cock C2.10                                                              |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10040 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10041 | I | M3                                                                                         |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10042 | A | Check the pressure on test point LPTP.                                                     |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10043 | R | LPTP                                                                                       |  | OK | 261.8 | Mphato Mphahlele - 480716 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcususppress : 260<= x <= 320                             |  | OK | 262   | Mphato Mphahlele - 480716 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 0.0                                   |  | OK | 0     | Mphato Mphahlele - 480716 | Train |
| 10046 | A | Close the isolation cock C2.10                                                             |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10047 | R | Check Pressure on test point C2.11.2 = 0bar<br>Read Undefined Value : x ()                 |  | OK | 0.01  | Mphato Mphahlele - 480716 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 1.0                                   |  | OK | 1     | Mphato Mphahlele - 480716 | Train |
| 10049 | A | Open the isolation cock C2.10                                                              |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10050 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10051 | I | TC2                                                                                        |  | OK |       | Mphato Mphahlele - 480716 | Train |
| 10052 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 328.9 | Mphato Mphahlele - 480716 | Train |
| 10053 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuSuspPress : 311<= x <= 371                              |  | OK | 330   | Mphato Mphahlele - 480716 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SuspIsoDC = 0.0                                   |  | OK | 0     | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                            |  |    |      |                           |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|------|---------------------------|-------|
| 10055 | A | Close the isolation cock C1.10                                                             |  | OK |      | Mphato Mphahlele - 480716 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SusplsoDC = 1.0                                   |  | OK | 1    | Mphato Mphahlele - 480716 | Train |
| 10057 | R | Check Pressure on test point C1.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0.01 | Mphato Mphahlele - 480716 | Train |
| 10058 | A | Open the isolation cock C1.10                                                              |  | OK |      | Mphato Mphahlele - 480716 | Train |
| 10059 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |      | Mphato Mphahlele - 480716 | Train |
| 10060 | I | End of Test                                                                                |  | OK |      | Mphato Mphahlele - 480716 | Train |

### 17.3.1 040\_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            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10002 | I    | Initial Conditions                                                                                                    |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10003 | I    | Emergency brake button 44S1 is released in both TC1 and TC2                                                           |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10004 | I    | Pressure on the main pipe should be higher than 7 bar                                                                 |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10005 | I    | The ERTMS switch 62S1 is in ISOLATION position in both TC1 and TC2                                                    |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10006 | I    | The Deadman switch 60S1 is in OVERRIDE position in both TC1 and TC2                                                   |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10007 | I    | Driving mode should be selected as COUPLE/WASH in both TC1 and TC2                                                    |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10008 | I    | Train has sufficient scotch blocks to prevent it from moving                                                          |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10009 | I    | Ensure that the propulsion system is inhibited to prevent movement when the master controller is in TRACTION position |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10010 | I    | Start of Test                                                                                                         |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10011 | I    | Brake application / release                                                                                           |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10012 | A    | Activate the cab on TC1                                                                                               |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10013 | I    | To begin test, the EPC life signal must be live                                                                       |      | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(BCU1)LI_REGULATOR_STAT = 1.0                                                           |      | OK            | 1            | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(BCU2)LI_REGULATOR_STAT = 1.0                                                           |      | OK            | 1            | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_REGULATOR_STAT = 1.0                                                          |      | OK            | 1            | Nhlakanipho Masondo<br>- 447208 | Train   |

|       |   |                                                                                                                                                                                                                                                                                                                                    |  |    |      |                                  |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------|----------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10020 | A | Put the direction selector switch in<br>FORWARD position                                                                                                                                                                                                                                                                           |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10021 | R | Emergency brake is released                                                                                                                                                                                                                                                                                                        |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10022 | R | LED 40H1 is OFF on the alarm module                                                                                                                                                                                                                                                                                                |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | 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 |      | Nhlakanipho Maseondo<br>- 447208 | 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 |      | Nhlakanipho Maseondo<br>- 447208 | 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 |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10026 | R | SBTP TC1<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                                                                                                                                                                                                                                |  | OK | 1.4  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10027 | R | Brake discs apply pressure on car TC1                                                                                                                                                                                                                                                                                              |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10028 | R | SBTP M4<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.36 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10029 | R | Brake discs apply pressure on car M4                                                                                                                                                                                                                                                                                               |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10030 | R | SBTP M1<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.37 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10031 | R | Brake discs apply pressure on car M1                                                                                                                                                                                                                                                                                               |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10032 | R | SBTP M2<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.4  | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                                              |  |    |      |                                  |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------|--|----|------|----------------------------------|-------|
| 10033 | R | Brake discs apply pressure on car M2                                                                                         |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10034 | R | SBTP M3<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                           |  | OK | 1.39 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10035 | R | Brake discs apply pressure on car M3                                                                                         |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10036 | R | SBTP TC2<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                          |  | OK | 1.36 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10037 | R | Brake discs apply pressure on car TC2                                                                                        |  | OK |      | Nhlakanipho Maseondo<br>- 447208 | 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 |      | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10039 | R | Read Min/Max [TT]<br>(MPU1)bcu1_bcuBpipepress : 127<= x <= 167                                                               |  | OK | 147  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10040 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuBPipePress : 127<= x <= 167                                                               |  | OK | 139  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10041 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 143  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10042 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 141  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 143  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu4_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 138  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                  |  | OK | 0    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                  |  | OK | 0    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                  |  | OK | 0    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                  |  | OK | 0    | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                                                                                                                                  |  |    |      |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------|---------------------------------|-------|
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                                                                                       |  | OK | 0    | Nhlakanipho Masondo<br>- 447208 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                                                                                       |  | OK | 0    | Nhlakanipho Masondo<br>- 447208 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                                                                                                                   |  | OK | 0    | Nhlakanipho Masondo<br>- 447208 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                                                                                   |  | OK | 0    | Nhlakanipho Masondo<br>- 447208 | Train |
| 10053 | R | Check the pressure on the brake pressure<br>gauge on TC1<br>Read Undefined Value : x ()                                                                                                                          |  | OK | 9.98 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10054 | R | Check the pressure on the brake pressure<br>gauge on TC2<br>Read Undefined Value : x ()                                                                                                                          |  | OK | 10   | Nhlakanipho Masondo<br>- 447208 | 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 |      | Nhlakanipho Masondo<br>- 447208 | 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 |      | Nhlakanipho Masondo<br>- 447208 | Train |
| 10057 | I | There must not have sudden release of<br>pressure while the master controller is<br>slowly moved to OFF position.                                                                                                |  | OK |      | Nhlakanipho Masondo<br>- 447208 | Train |
| 10058 | R | Pressure on BCTP (Car TC) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                                  |  | OK | 0.01 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10059 | R | Pressure on SBTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0.02 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10060 | R | Pressure on BCTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0.01 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10061 | R | Pressure on SBTP all TC cars = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                               |  | OK | 0.02 | Nhlakanipho Masondo<br>- 447208 | 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 |      | Nhlakanipho Masondo<br>- 447208 | Train |
| 10063 | R | Brake discs do not apply pressure on car<br>TC1                                                                                                                                                                  |  | OK |      | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                             |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10064 | R | Brake discs do not apply pressure on car M4                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10065 | R | Brake discs do not apply pressure on car M1                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10066 | R | Brake discs do not apply pressure on car M2                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10067 | R | Brake discs do not apply pressure on car M3                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10068 | R | Brake discs do not apply pressure on car TC2                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10069 | I | Holding Brake                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10070 | A | Put the master controller on 100% BRAKE position            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                             |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10083 | A | Put the master controller on OFF position                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 0.0    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 0.0   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 0.0   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 0.0   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 0.0   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10096 | A | Put the driving mode switch 30S1 to<br>EFFORT position      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10097 | A | Put the master controller on 100% BRAKE<br>position         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                             |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10110 | A | Position the master controller on OFF position              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                             |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10123 | A | Position the driving mode switch 30S1 to<br>DEPOT position  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10124 | A | Position the master controller on 100%<br>BRAKE position    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                 |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10137 | A | Position the master controller on OFF<br>position               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0       |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                 |  |    |   |                                  |       |
|-------|---|-----------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10150 | A | Return the driving mode switch 30S1 to COUPLE / WASH position   |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10151 | A | Position the master controller in 100% BRAKE position           |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10152 | I | Brake isolation through the isolation cock                      |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10153 | I | TC1 service brake manual isolation                              |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10154 | A | Close the isolation cock C1.3.1                                 |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10155 | R | Lamp 40H2 is ON on the alarm mode for EB reduced                |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0  |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10157 | A | Put the manometer test point to BCTP                            |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10158 | R | Pressure on BCTP decreases slowly until it reaches +/- 0.2 bar  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10159 | R | Brake discs are not in contact with wheels on TC1 bogies        |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 1.0  |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0  |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                    |  |    |   |                                  |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 1.0 |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0         |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10184 | A | Open the isolation cock C1.3.1                                     |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10185 | R | Lamp 40H2 is OFF on the alarm mode for<br>EB reduced               |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                                                                           |  |    |   |                                  |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10186 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                                                            |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | 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 |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10188 | R | Brake discs are in contact with wheels on<br>TC1 bogies                                                                                                   |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                            |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                            |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                                         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                                        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                               |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                               |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |

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| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10207 | A | Remove manometer on TC1 BCTP point                                                                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10208 | I | M4 service brake manual isolation                                                                                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10209 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10211 | R | Lamp 40H2 is "ON" on the alarm mode<br>for EB reduced                                                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10212 | A | Put manometer on M4 BCTP point                                                                                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10213 | R | Pressure measured on test point BCTP<br>decreases slowly until 0 bar (+/-0,2bar)                                                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10214 | R | Brake discs are not in contact with wheels<br>on M4 bogies                                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                               |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                               |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 1.0                                                                              |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                                            |  |    |   |                                 |       |
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| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 1.0                                                                          |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0                                                                                |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10233 | A | Open the isolation cock C2.3.1                                                                                                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10234 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10236 | R | Brake discs are in contact with wheels on M4 bogies                                                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                    |  |    |   |                                  |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisolDC = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisolDC = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisolDC = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisolDC = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10249 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10255 | A | Remove manometer on M4 BCTP point                                  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                                                     |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10256 | I | M1 service brake manual isolation                                                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10257 | A | Close the isolation cock C2.3.1                                                                                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10258 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 883: "Mechanical Brake manually isolated on M1" |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10259 | R | Lamp 40H2 is ON for EB reduced on the alarm module                                                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10260 | A | Put manometer on M1 BCTP point                                                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10261 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar)                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10262 | R | Brake discs are not in contact with wheels on M1 bogies                                                                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 1.0                                                                     |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 1.0                                                                   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                                            |  |    |   |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10274 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0                                                                                |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10281 | A | Open the isolation cock C2.3.1                                                                                                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10282 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10284 | R | Brake discs are in contact with wheels on M1 bogies                                                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10286 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                             |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10288 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                    |  |    |   |                                  |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10304 | A | Remove manometer on M1 BCTP point                                  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10305 | I | M2 service brake manual isolation                                  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10306 | A | Close the isolation cock C2.3.1                                    |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10307 | R | Lamp 40H2 is ON for EB reduced on the alarm module                 |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                          |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10308 | A | Put manometer on M2 BCTP point                                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10309 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar) |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 1.0                                          |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10311 | R | Brake discs are not in contact with wheels on M2 bogies                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 1.0                                        |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                        |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0                                              |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                                                     |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10325 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                         |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10329 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10330 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10332 | R | Brake discs are in contact with wheels on<br>M2 bogies                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                                              |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10348 | A | Remove manometer on M2 BCTP point                                                                                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10349 | I | M3 Service brake manual isolation                                                                                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10350 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10352 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module                                                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10353 | A | Put the manometer on the BCTP test point<br>of M3                                                                                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10354 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until 0bar (+/-0,2bar)                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10355 | R | Brake discs are not in contact with wheels<br>on M3 bogies                                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                               |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                               |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                              |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                    |  |    |   |                                  |       |
|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 1.0    |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10361 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 1.0  |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0        |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                                                                     |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10376 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 1.0                                                                                     |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10380 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10381 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10383 | R | Brake discs are in contact with wheels on<br>M3 bogies                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                                   |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                                       |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                     |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                    |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10397 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                            |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                            |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10402 | A | Remove the manometer from the BCTP test point                                                                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10403 | I | TC2 Service brake manual isolation                                                                                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10404 | A | Close the isolation cock C1.3.1                                                                                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10405 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 882 : "Mechanical Brake manually isolated on TC2" |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10406 | R | Lamp 40H2 is ON for EB reduced on the alarm module                                                                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10407 | A | Put manometer on BCTP test point                                                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10408 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar)                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10409 | R | Brake discs are not in contact with wheels on TC2 bogies                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

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|-------|---|--------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 1.0     |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10420 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 1.0 |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0         |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |

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| 10427 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10428 | A | Open the isolation cock C1.3.1                                                                                                                      |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10429 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10430 | A | Put the manometer on the BCTP point in<br>TC2                                                                                                       |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10431 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in TC car reaches<br>1,47bar (+/-0,2bar) |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10432 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10433 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10434 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10438 | R | Brake discs are in contact with wheels on<br>TC2 bogies                                                                                             |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10443 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                     |  | OK | 0 | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                                                  |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10444 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10445 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                               |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10447 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10448 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10449 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                               |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10450 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10451 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10452 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10453 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10454 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10455 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10456 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10457 | A | Remove the manometer from the BCTP<br>point of TC2                                                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10458 | I | BCU Fault Test                                                                                                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10459 | I | Emergency brake must be applied to force<br>the variables mentioned.<br>After forcing the variables, release<br>emergency brake. |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10460 | A | Position the master controller on OFF<br>position                                                                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                              |  |    |   |                                 |       |
|-------|---|--------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10461 | A | Put the direction selector switch in Neutral position        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10462 | A | Force [TT] (BCU1)LO_BRK_FLT = 0.0                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10463 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10464 | A | Release [TT] (BCU1)LO_BRK_FLT                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10465 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10466 | A | Force [TT] (TBCU4)LO_BRK_FLT = 0.0                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10467 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10468 | A | Release [TT] (TBCU4)LO_BRK_FLT                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10469 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10470 | A | Force [TT] (TBCU2)LO_BRK_FLT = 0.0                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10471 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2bcufault = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10472 | A | Release [TT] (TBCU2)LO_BRK_FLT                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10473 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2bcufault = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10474 | A | Force [TT] (TBCU1)LO_BRK_FLT = 0.0                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10475 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1bcufault = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10476 | A | Release [TT] (TBCU1)LO_BRK_FLT                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10477 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1bcufault = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10478 | A | Force [TT] (TBCU3)LO_BRK_FLT = 0.0                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10479 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3bcufault = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10480 | A | Release [TT] (TBCU3)LO_BRK_FLT                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                                                                               |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10481 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3bcufault = 1.0                                                                                                                   |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10482 | A | Force [TT] (BCU2)LO_BRK_FLT = 0.0                                                                                                                                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10483 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2bcufault = 0.0                                                                                                                  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10484 | A | Release [TT] (BCU2)LO_BRK_FLT                                                                                                                                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10485 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2bcufault = 1.0                                                                                                                  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10486 | I | Wheel Slide test                                                                                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10487 | A | On DDU from TC1 car, request the WSP<br>test on test screen and perform the<br>actions shown on DDU.                                                                          |  | OK |   | Alleta Sekgololo -<br>417407    | Train |
| 10488 | I | To request the WSP test, go to test screen<br>and request the brake test. Perform the<br>Parking brake test. After the parking brake<br>test, the WSP test will be available. |  | OK |   | Alleta Sekgololo -<br>417407    | Train |
| 10489 | I | Safety requirement: [Prasa1-56]                                                                                                                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10490 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BcuTstOk = 0.0                                                                                                                       |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10491 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_BcuTstOk = 0.0                                                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10492 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_BcuTstOk = 0.0                                                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10493 | R | Read Defined Variable [TT]<br>(MPU1)TBCU3_BcuTstOk = 0.0                                                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10494 | R | Read Defined Variable [TT]<br>(MPU1)TBCU4_BcuTstOk = 0.0                                                                                                                      |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10495 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                                                                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10496 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                                                                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10497 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.                                                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                   |  |    |  |                                 |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|--|---------------------------------|-------|
| 10498 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10499 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10500 | R | The visual indication of wheel slide detection (41H1) on the alarm module is ON.  |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10501 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10502 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10503 | R | The visual indication of wheel slide detection (41H1) on the alarm module is ON.  |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10504 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10505 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10506 | R | The visual indication of wheel slide detection (41H1) on the alarm module is OFF. |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10507 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1                                   |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10508 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2                                   |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10509 | I | End of Test                                                                       |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 18 – Emergency Brake Interlock

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### 18.3 Instructions list

### 18.3.1 044\_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            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10002 | I    | Emergency Brake Cylinder Pressure                                              |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10003 | I    | Pressure in the main pipe should be 10 bar +/- 0.2bar                          |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10004 | I    | The direction selector switch is in Neutral position                           |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10005 | I    | Emergency brake is applied                                                     |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10006 | A    | Measure the pressure of the BCTP point in all cars with a calibrated manometer |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10007 | R    | BCTP TC1<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 163.8        | Simphiwe Mkhonto - 463555 | Train   |
| 10008 | R    | BCTP M4<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 191.9        | Simphiwe Mkhonto - 463555 | Train   |
| 10009 | R    | BCTP M1<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 193.9        | Simphiwe Mkhonto - 463555 | Train   |
| 10010 | R    | BCTP M2<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 211.1        | Simphiwe Mkhonto - 463555 | Train   |
| 10011 | R    | BCTP M3<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 197.3        | Simphiwe Mkhonto - 463555 | Train   |
| 10012 | R    | BCTP TC2<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 184.9        | Simphiwe Mkhonto - 463555 | Train   |
| 10013 | I    | Emergency brake TC1                                                            |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10014 | I    | Emergency brake by Direction Switch TC1                                        |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10015 | I    | Direction selector switch is in NEUTRAL position                               |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10016 | A    | Active cab on TC1                                                              |      | OK            |              | Simphiwe Mkhonto - 463555 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>UBK_EmgcyBrkApd = 1.0                            |      | OK            | 1            | Simphiwe Mkhonto - 463555 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                           |      | OK            | 0            | Simphiwe Mkhonto - 463555 | Train   |

|       |   |                                                          |  |    |   |                              |       |
|-------|---|----------------------------------------------------------|--|----|---|------------------------------|-------|
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0      |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10025 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10032 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10033 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |

|       |   |                                                                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10040 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10041 | I | Emergency Brake Button TC1                                                                                                |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10042 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10043 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10044 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10045 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10046 | A | Release the button 44S1                                                                                                   |  | OK |   | Simphiwe Mkhonto -<br>463555 | 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 |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10048 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10049 | A | On the non-active cab TC2, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10050 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10051 | A | Release the button 44S1                                                                                                   |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10052 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |

|       |   |                                                          |  |    |   |                              |       |
|-------|---|----------------------------------------------------------|--|----|---|------------------------------|-------|
| 10053 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10054 | I | Emergency Brake by Master controller<br>TC1              |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10055 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10056 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10057 | A | Put the master controller in EMERGENCY<br>BRAKE position |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10058 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10059 | A | Put the master controller in OFF position                |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10060 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10061 | I | PEA override TC1                                         |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10062 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10063 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10064 | R | Lamp 44H5 is OFF                                         |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10065 | A | Pull any PEA on train                                    |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10066 | R | Lamp 44H5 is ON                                          |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10067 | A | Press the PEA override button 44S5                       |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10068 | A | Reset the PEA by switch 44S6                             |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10069 | R | Lamp 44H5 is OFF                                         |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10070 | A | Press the button 44S5 to normalize PEA<br>override       |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10071 | I | Emergency brake TC2                                      |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10072 | I | Emergency brake by Direction Switch TC2                  |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |

|       |   |                                                       |  |    |   |                           |       |
|-------|---|-------------------------------------------------------|--|----|---|---------------------------|-------|
| 10073 | I | Direction selector switch is in NEUTRAL position      |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10074 | A | Switch active cab to TC2                              |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10075 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0  |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_tIneb = 0.0  |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tIneb = 0.0  |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tIneb = 0.0 |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tIneb = 0.0 |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tIneb = 0.0 |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tIneb = 0.0 |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10082 | A | Put the direction selector switch in FORWARD position |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10083 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0  |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_tIneb = 1.0  |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tIneb = 1.0  |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tIneb = 1.0 |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tIneb = 1.0 |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tIneb = 1.0 |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tIneb = 1.0 |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10090 | A | Put the direction selector switch in REVERSE position |  | OK |   | Simphiwe Mkhonto - 463555 | Train |

|       |   |                                                                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10091 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_tINeb = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tIneb = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tIneb = 1.0                                                                     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tIneb = 1.0                                                                     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tIneb = 1.0                                                                     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tIneb = 1.0                                                                     |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10098 | I | Emergency Brake Button TC2                                                                                                |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10099 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10100 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10101 | A | Release the button 44S1                                                                                                   |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | 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 |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10104 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Simphiwe Mkhonto -<br>463555 | Train |
| 10105 | A | On the non-active can TC1, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |
| 10106 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Simphiwe Mkhonto -<br>463555 | Train |
| 10107 | A | Release the button 44S1                                                                                                   |  | OK |   | Simphiwe Mkhonto -<br>463555 | Train |

|       |   |                                                                                                                  |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10108 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10109 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                                                |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10110 | A | Put the direction selector switch in NEUTRAL position                                                            |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10111 | I | Emergency Brake by Master controller TC2                                                                         |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10112 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10113 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                                                |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10114 | A | Put the master controller in EMERGENCY BRAKE position                                                            |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10115 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0                                                                |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10116 | A | Put the master controller in OFF position                                                                        |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10117 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0                                                                |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10118 | I | PEA override TC2                                                                                                 |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10119 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                                                |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10120 | A | Pull any PEA on train                                                                                            |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10121 | R | Lamp 44H5 is ON                                                                                                  |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10122 | A | Press the PEA override button 44S5                                                                               |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10123 | A | Reset the PEA by switch 44S6                                                                                     |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10124 | R | Lamp 44H5 is OFF                                                                                                 |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10125 | A | Press the button 44S5 to normalize PEA override                                                                  |  | OK |   | Simphiwe Mkhonto - 463555 | Train |

|       |   |                                                                                                          |  |    |   |                           |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10126 | A | Put the direction selector switch in Neutral and FORWARD position                                        |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10127 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                     |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10128 | I | Low Pressure                                                                                             |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10129 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                                         |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10130 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                                         |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10131 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                                         |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10132 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                                         |  | OK |   | Simphiwe Mkhonto - 463555 | 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 |   | Simphiwe Mkhonto - 463555 | Train |
| 10134 | R | On DDU screen, emergency brake due to low pressure appears                                               |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10137 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                     |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10138 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                             |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10139 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                             |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                             |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                             |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10142 | I | The pressure in the main pipe should be at least 7 bar for emergency brake to be released                |  | OK |   | Simphiwe Mkhonto - 463555 | Train |

|       |   |                                                                                     |  |    |   |                           |       |
|-------|---|-------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10143 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position |  | OK |   | Simphiwe Mkhonto - 463555 | Train |
| 10144 | R | Read Defined Variable [TT] (BCU1)li_mp_ps_ok = 1.0                                  |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10145 | R | Read Defined Variable [TT] (BCU2)li_mp_ps_ok = 1.0                                  |  | OK | 1 | Simphiwe Mkhonto - 463555 | Train |
| 10146 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                   |  | OK | 0 | Simphiwe Mkhonto - 463555 | Train |
| 10147 | I | End of Test                                                                         |  | OK |   | Simphiwe Mkhonto - 463555 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 19 – Passenger Doors

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### 19.3 Instructions list

### 19.3.1 050\_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            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10002 | I    | Initial Conditions                                                |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10003 | I    | All doors should be closed                                        |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10004 | I    | Speed less than 3km/h relay 61K3 is energized                     |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10005 | I    | Start of Test                                                     |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10006 | I    | Uploading procedure:                                              |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10007 | I    | Follow the below instructions to upload software on all the doors |  | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10008 | I    | Doors functional Test TC1 Cab                                     |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10009 | I    | Door authorization not possible in non-active cab                 |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10010 | A    | Remove active cab on TC1                                          |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10011 | A    | Put the door authorization switch 50S7 to DRIVER mode             |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10012 | A    | Press the AUTH LEFT button 50S5                                   |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10013 | R    | Door AUTH LEFT not possible, Lamp 50S5 is OFF                     |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10014 | A    | Press the OPEN LEFT button 50S1                                   |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10015 | R    | OPEN LEFT door not possible, Lamp 50S1 is OFF                     |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10016 | A    | Press the AUTH RIGHT button 50S6                                  |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |
| 10017 | R    | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                    |                                                                                    | OK            |              | Nhlakanipho Masondo<br>- 447208 | Train   |

|       |   |                                                                           |                                                                                     |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------------|-------|
| 10018 | A | Press the OPEN RIGHT button 50S2                                          |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10019 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                            |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10020 | I | Door authorization with active cab                                        |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10021 | A | Activate cab on TC1                                                       |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0      |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10023 | A | Press and hold the AUTH LEFT button 50S5                                  |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 0.0       |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10025 | A | Press and hold the OPEN LEFT button 50S1                                  |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0          |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 1.0       |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10028 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10029 | R | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10030 | A | Press and hold the CLOSE LEFT button 50S3                                 |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpleftr1 = 1.0      |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10033 | R | Lamp 51H1 is OFF                                                          |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10034 | R | Check on the DDU screen that all left doors are closed and in blue colour |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10035 | A | Press and hold the AUTH RIGHT button 50S6                                 |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                       |                                                                                    |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----|---|---------------------------------|-------|
| 10036 | R | Lamp 50S6 is ON                                                                                                       |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1authdoorpbright = 1.0                                                   |                                                                                    | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpbright1 = 0.0                                                  |                                                                                    | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10039 | A | Press and hold the OPEN RIGHT button 50S2                                                                             |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                     |                                                                                    | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                     |                                                                                    | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10042 | R | Check on DDU screen that all right doors are OPEN                                                                     |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10043 | R | Door safety loop is OPEN, lamp 51H1 is ON                                                                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10044 | A | Press and hold the button 50S4 to close all right doors                                                               |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpbright1 = 1.0                                                 |                                                                                    | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlinelight = 1.0                                                |                                                                                    | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10047 | R | Lamp 51H1 is OFF                                                                                                      |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10048 | R | Check on the DDU screen that all right doors are closed and in blue colour                                            |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10049 | A | Press the AUTH LEFT button 50S5                                                                                       |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10050 | A | Press the OPEN LEFT button 50S1                                                                                       |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10051 | A | Press the AUTH RIGHT button 50S6                                                                                      |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10052 | A | Press the OPEN RIGHT button 50S2                                                                                      |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | 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 |                                                                                    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                            |  |    |  |                                 |       |
|-------|---|--------------------------------------------|--|----|--|---------------------------------|-------|
|       |   | is open                                    |  |    |  |                                 |       |
| 10054 | A | Press the CLOSE LEFT button 50S3           |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10055 | A | Press the CLOSE RIGHT button 50S4          |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10056 | R | All doors are closed on the DDU screen     |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10057 | I | Train speed more than 3km/h TC1            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10058 | A | Open 61Q1 to switch OFF the OTDR           |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10059 | A | Press the AUTH LEFT button 50S5            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10060 | A | Press the OPEN LEFT button 50S1            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10061 | A | Press the AUTH RIGHT button 50S6           |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10062 | A | Press the OPEN RIGHT button 50S2           |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10063 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1<br>= 0.0 |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10064 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1<br>= 0.0 |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10065 | R | All left doors are closed                  |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10066 | R | All right doors are closed                 |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10067 | A | Press the AUTH LEFT button 50S5            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10068 | A | Press the OPEN LEFT button 50S1            |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10069 | A | Press the AUTH RIGHT button 50S6           |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10070 | A | Press the OPEN RIGHT button 50S2           |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10071 | R | All doors remain closed                    |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10072 | A | Release [TT]<br>(BCU1)LO_SPEED_THRSLD1     |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10073 | A | Release [TT]<br>(BCU2)LO_SPEED_THRSLD1     |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10074 | I | Doors functional Test TC2 Cab              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                      |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10075 | I | Door authorization not possible in non-active cab                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10076 | A | Press the AUTH LEFT button 50S5                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10077 | R | Door AUTH LEFT not possible, Lamp 50S5 is OFF                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10078 | A | Press the OPEN LEFT button 50S1                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10079 | R | OPEN LEFT door is not possible, Lamp 50S1 is OFF                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10080 | A | Press the AUTH RIGHT button 50S6                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10081 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10082 | A | Press the OPEN RIGHT button 50S2                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10083 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10084 | I | Door authorization with active cab                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10085 | A | Activate cab on TC2                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10086 | A | Set the door authorization switch 50S7 to DRIVER mode in LV1         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10088 | A | Press and hold the AUTH LEFT button 50S5                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpleft = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 0.0  |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10091 | A | Press and hold the OPEN LEFT button 50S1                             |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorpleft = 1.0    |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                           |                                                                                     |    |   |                                 |       |
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| 10094 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10095 | I | Door safety loop is OPEN, lamp 51H1 is ON                                 |    | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10096 | A | Press and hold the CLOSE LEFT button 50S3                                 |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpleftr1 = 1.0      |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10099 | R | Lamp 51H1 is OFF                                                          |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10100 | R | Check on the DDU screen that all left doors are closed and in blue colour |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10101 | A | Press and hold and hold the AUTH RIGHT button 50S6                        |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpbright = 1.0       |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 0.0      |                                                                                     | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10104 | A | Press and hold the OPEN RIGHT button 50S2                                 |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 1.0      |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10106 | R | Check on DDU screen that all right doors are OPEN                         |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10107 | I | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10108 | R | Press the CLOSE RIGHT button 50S4                                         |                                                                                     | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpbright1 = 1.0     |                                                                                     | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                               |  |    |  |                                 |       |
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| 10111 | R | Lamp 51H1 is OFF                                                                                                              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10112 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10113 | A | Press the AUTH LEFT button 50S5                                                                                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10114 | A | Press the OPEN LEFT button 50S1                                                                                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10115 | A | Press the AUTH RIGHT button 50S6                                                                                              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10116 | A | Press the OPEN RIGHT button 50S2                                                                                              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | 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 |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10118 | A | Press the CLOSE LEFT button 50S3                                                                                              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10119 | A | Press the CLOSE RIGHT button 50S4                                                                                             |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10120 | R | All doors are closed on the DDU screen                                                                                        |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10121 | I | Train speed more than 3km/h TC2                                                                                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10122 | A | Open 61Q1 to switch OFF the OTDR                                                                                              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10123 | A | Press the AUTH LEFT button 50S5                                                                                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10124 | A | Press the OPEN LEFT button 50S1                                                                                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10125 | A | Press the AUTH RIGHT button 50S6                                                                                              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10126 | A | Press the OPEN RIGHT button 50S2                                                                                              |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10127 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0                                                                                       |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10128 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0                                                                                       |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10129 | R | All left doors are closed                                                                                                     |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10130 | R | All right doors are closed                                                                                                    |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10131 | A | Press the AUTH LEFT button 50S5                                                                                               |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                                                                   |                                                                                     |    |  |                                  |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|----------------------------------|-------|
| 10132 | A | Press the OPEN LEFT button 50S1                                                                                   |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10133 | A | Press the AUTH RIGHT button 50S6                                                                                  |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10134 | A | Press the OPEN RIGHT button 50S2                                                                                  |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10135 | R | All doors remain closed                                                                                           |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10136 | A | Release [TT]<br>(BCU1)LO_SPEED_THRSLD1                                                                            |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10137 | A | Release [TT]<br>(BCU2)LO_SPEED_THRSLD1                                                                            |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10138 | A | Close 61Q1 circuit breaker                                                                                        |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10139 | I | Door Obstacle Detection                                                                                           |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10140 | I | This test is to verify if the CCTV footage<br>will display on the DDU when an obstacle<br>is detected at any door |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10141 | A | Press the DOOR AUTH left button 50S5                                                                              |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10142 | A | Press the button 50S1 to open left doors                                                                          |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10143 | A | Place an obstacle at the centre of any of<br>the open doors                                                       |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10144 | A | Close the left doors                                                                                              |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10145 | I | The door with an obstacle will attempt to<br>close 3 times                                                        |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10146 | R | The door with an obstacle appears in<br>white colour on the DDU screen                                            |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10147 | A | Remove the obstacle                                                                                               |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10148 | A | Open and close left doors                                                                                         |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10149 | R | The door which had the obstacle appears<br>closed on the DDU and it's in blue colour                              |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10150 | I | Door Manual Opening                                                                                               |  | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10151 | A | All doors should be closed including the<br>door covers in each saloon                                            |                                                                                     | OK |  | Nhlakanipho Maseondo<br>- 447208 | Train |

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|-------|---|--------------------------------------------------------------------------|--|----|-----|----------------------------------|-------|
| 10152 | I | TC1                                                                      |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10153 | A | Put the switch 50S7 in DRIVER mode                                       |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10154 | A | Try to manually open ALL TC1 DOORS                                       |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10155 | R | It is not possible to manually open any of the doors                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10156 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10157 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 96  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10158 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 110 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10159 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 93  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10160 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 88  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10161 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 102 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10162 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 113 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10163 | A | Manually open the doors                                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10164 | R | Doors opens freely                                                       |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10165 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10166 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10167 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10168 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0        |  | OK | 1   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0         |  | OK | 1   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10171 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10172 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10173 | R | The TC1 doors remains open                                               |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                     |  |    |  |                              |       |
|-------|---|-----------------------------------------------------|--|----|--|------------------------------|-------|
| 10174 | A | Press the button 54S3 to acknowledge PEAs           |  | OK |  | Amanda Ntuli - 526239        | Train |
| 10175 | A | Reset the PEA using switch 44S6                     |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10176 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10177 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10178 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10179 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10180 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10181 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10182 | R | The TC1 doors closes                                |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10183 | A | Activate the lockout device on ALL TC1 Doors        |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10184 | R | Doors of TC1 appear as OUT OF SERVICE on DDU screen |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10185 | A | Try to manually open the doors                      |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10186 | R | It is not possible to open any of the doors         |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10187 | A | Pull the PEAs                                       |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10188 | A | Try to manually open the doors                      |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10189 | R | It is not possible to open any of the doors         |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10190 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10191 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10192 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10193 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10194 | R | All Train doors are open except for TC1 doors       |  | OK |  | Nhlakanipho Masondo - 447208 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA            |  | OK |  | Amanda Ntuli - 526239        | Train |

|       |   |                                                                          |  |    |     |                                  |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|----------------------------------|-------|
| 10196 | A | Release the lockout devices                                              |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10197 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10198 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10199 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10200 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10202 | I | M4 car                                                                   |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10203 | A | Try to manually open ALL M4 DOORS                                        |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10204 | R | It is not possible to manually open any of the doors                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10205 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10206 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 64  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10207 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 90  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10208 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 112 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10209 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 73  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10210 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 96  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10211 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 113 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10212 | A | Manually open the doors                                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10213 | R | Doors opens freely                                                       |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10214 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10215 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10216 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10217 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                  |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorright = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorleft = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10220 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10221 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10222 | R | The M4 doors remains open                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10223 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10224 | A | Reset the PEA using switch 44S6                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10225 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10226 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10227 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10228 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10229 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10230 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10231 | R | The M4 doors closes                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10232 | A | Activate the lockout device on ALL M4<br>Doors                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10233 | R | Doors of M4 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10234 | A | Try to manually open the doors                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10235 | R | It is not possible to open any of the doors                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10236 | A | Pull the PEAs                                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10237 | A | Try to manually open the doors                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10238 | R | It is not possible to open any of the doors                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10239 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                          |  |    |     |                                  |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|----------------------------------|-------|
| 10240 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10241 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10242 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10243 | R | All Train doors are open except for M4 doors                             |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10244 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |     | Amanda Ntuli - 526239            | Train |
| 10245 | A | Release the lockout devices                                              |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10246 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10247 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10248 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10249 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10251 | I | M1 car                                                                   |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10252 | A | Try to manually open ALL M1 DOORS                                        |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10253 | R | It is not possible to manually open any of the doors                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10254 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10255 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 110 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10256 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 113 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10257 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 90  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10258 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 67  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10259 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 87  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10260 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 70  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10261 | A | Manually open the doors                                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                  |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10262 | R | Doors opens freely                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10263 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10264 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10265 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10266 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m1opendoorright = 1.0 |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10269 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10270 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10271 | R | The M1 doors remains open                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10272 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10273 | A | Reset the PEA using switch 44S6                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10274 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10275 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10276 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10277 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10278 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10279 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10280 | R | The M1 doors closes                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10281 | A | Activate the lockout device on ALL M1<br>Doors                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10282 | R | Doors of M1 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10283 | A | Try to manually open the doors                                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                          |  |    |    |                                  |       |
|-------|---|--------------------------------------------------------------------------|--|----|----|----------------------------------|-------|
| 10284 | R | It is not possible to open any of the doors                              |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10285 | A | Pull the PEAs                                                            |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10286 | A | Try to manually open the doors                                           |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10287 | R | It is not possible to open any of the doors                              |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10288 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10289 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10290 | A | Press the OPEN LEFT button 50S1                                          |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10291 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10292 | R | All Train doors are open except for M1 doors                             |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10293 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |    | Amanda Ntuli - 526239            | Train |
| 10294 | A | Release the lockout devices                                              |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10295 | A | Reset the PEAs using the switch 44S6                                     |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10296 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10297 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10298 | R | Doors appears as Closed on the DDU screen                                |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10300 | I | M2 car                                                                   |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10301 | A | Try to manually open ALL M2 DOORS                                        |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10302 | R | It is not possible to manually open any of the doors                     |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10303 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10304 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 95 | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                  |  |    |     |                                  |       |
|-------|---|------------------------------------------------------------------|--|----|-----|----------------------------------|-------|
| 10305 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 92  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10306 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 86  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10307 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 99  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10308 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 102 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10309 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 112 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10310 | A | Manually open the doors                                          |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10311 | R | Doors opens freely                                               |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10312 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10313 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10314 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10315 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorright = 1.0 |  | OK | 1   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10318 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10319 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10320 | R | The M2 doors remains open                                        |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10321 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |     | Amanda Ntuli - 526239            | Train |
| 10322 | A | Reset the PEA using switch 44S6                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10323 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10324 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10325 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10326 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10327 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                      |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10328 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10329 | R | The M2 doors closes                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10330 | A | Activate the lockout device on ALL M2 Doors                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10331 | R | Doors of M2 appear as OUT OF SERVICE on DDU screen                   |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10332 | A | Try to manually open the doors                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10333 | R | It is not possible to open any of the doors                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10334 | A | Pull the PEAs                                                        |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10335 | A | Try to manually open the doors                                       |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10336 | R | It is not possible to open any of the doors                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10337 | A | Press AUTH LEFT BUTTON 50S5                                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10338 | A | Press AUTH RIGHT BUTTON 50S6                                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10339 | A | Press the OPEN LEFT button 50S1                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10340 | A | Press the OPEN RIGHT button 50S2                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10341 | R | All Train doors are open except for M2 doors                         |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10342 | A | Press the button 54S3 to acknowledge PEA                             |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10343 | A | Release the lockout devices                                          |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10344 | A | Reset the PEAs using the switch 44S6                                 |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10345 | A | Press the CLOSE LEFT button 50S3                                     |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10346 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10347 | R | Doors appears as Closed on the DDU screen                            |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                          |  |    |     |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|---------------------------------|-------|
| 10349 | I | M3 car                                                                   |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10350 | A | Try to manually open ALL M3 DOORS                                        |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10351 | R | It is not possible to manually open any of the doors                     |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10352 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10353 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 112 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10354 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 104 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10355 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 99  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10356 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 89  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10357 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 76  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10358 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 89  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10359 | A | Manually open the doors                                                  |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10360 | R | Doors opens freely                                                       |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10361 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10362 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10363 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10364 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorright = 1.0         |  | OK | 1   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorleft = 1.0          |  | OK | 1   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10367 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10368 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10369 | R | The M3 doors remains open                                                |  | OK |     | Nhlakanipho Masondo<br>- 447208 | Train |
| 10370 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |     | Amanda Ntuli - 526239           | Train |

|       |   |                                                    |  |    |  |                                 |       |
|-------|---|----------------------------------------------------|--|----|--|---------------------------------|-------|
| 10371 | A | Reset the PEA using switch 44S6                    |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10372 | A | Press AUTH LEFT BUTTON 50S5                        |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10373 | A | Press AUTH RIGHT BUTTON 50S6                       |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10374 | A | Press the OPEN LEFT button 50S1                    |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10375 | A | Press the OPEN RIGHT button 50S2                   |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10376 | A | Press the CLOSE LEFT button 50S3                   |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10377 | A | Press the CLOSE RIGHT button 50S4                  |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10378 | R | The M3 doors closes                                |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10379 | A | Activate the lockout device on ALL M3 Doors        |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10380 | R | Doors of M3 appear as OUT OF SERVICE on DDU screen |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10381 | A | Try to manually open the doors                     |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10382 | R | It is not possible to open any of the doors        |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10383 | A | Pull the PEAs                                      |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10384 | A | Try to manually open the doors                     |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10385 | R | It is not possible to open any of the doors        |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10386 | A | Press AUTH LEFT BUTTON 50S5                        |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10387 | A | Press AUTH RIGHT BUTTON 50S6                       |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10388 | A | Press the OPEN LEFT button 50S1                    |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10389 | A | Press the OPEN RIGHT button 50S2                   |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10390 | R | All Train doors are open except for M3 doors       |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |
| 10391 | A | Press the button 54S3 to acknowledge PEA           |  | OK |  | Amanda Ntuli - 526239           | Train |
| 10392 | A | Release the lockout devices                        |  | OK |  | Nhlakanipho Masondo<br>- 447208 | Train |

|       |   |                                                                          |  |    |     |                                  |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|----------------------------------|-------|
| 10393 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10394 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10395 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10396 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10397 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10398 | I | TC2 car                                                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10399 | A | Try to manually open ALL TC2 DOORS                                       |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10400 | R | It is not possible to manually open any of the doors                     |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10401 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10402 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 98  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10403 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 89  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10404 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 67  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10405 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 78  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10406 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 90  | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10407 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 112 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10408 | A | Manually open the doors                                                  |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10409 | R | Doors opens freely                                                       |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10410 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10411 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10412 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10413 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorright = 1.0        |  | OK | 1   | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                  |  |    |   |                                  |       |
|-------|---|------------------------------------------------------------------|--|----|---|----------------------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0 |  | OK | 1 | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10416 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10417 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10418 | R | The TC2 doors remains open                                       |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10419 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |   | Amanda Ntuli - 526239            | Train |
| 10420 | A | Reset the PEA using switch 44S6                                  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10421 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10422 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10423 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10424 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10425 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10426 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10427 | R | The TC2 doors closes                                             |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10428 | A | Activate the lockout device on ALL TC2<br>Doors                  |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10429 | R | Doors of TC2 appear as OUT OF SERVICE<br>on DDU screen           |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10430 | A | Try to manually open the doors                                   |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10431 | R | It is not possible to open any of the doors                      |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10432 | A | Pull the PEAs                                                    |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10433 | A | Try to manually open the doors                                   |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10434 | R | It is not possible to open any of the doors                      |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10435 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |
| 10436 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Nhlakanipho Maseondo<br>- 447208 | Train |

|       |   |                                                                                                                                                |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10437 | A | Press the OPEN LEFT button 50S1                                                                                                                |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10438 | A | Press the OPEN RIGHT button 50S2                                                                                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10439 | R | All Train doors are open except for TC2 doors                                                                                                  |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA                                                                                                       |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10441 | A | Release the lockout devices                                                                                                                    |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10442 | A | Reset the PEAs using the switch 44S6                                                                                                           |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10443 | A | Press the CLOSE LEFT button 50S3                                                                                                               |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10444 | A | Press the CLOSE RIGHT button 50S4                                                                                                              |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10445 | R | Doors appears as Closed on the DDU screen                                                                                                      |  | OK |   | Nhlakanipho Masondo<br>- 447208 | Train |
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0                                                                           |  | OK | 0 | Nhlakanipho Masondo<br>- 447208 | Train |
| 10447 | I | Door cycle test                                                                                                                                |  | OK |   | Amanda Ntuli - 526239           | 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 |   | Amanda Ntuli - 526239           | Train |
| 10449 | A | Check all the doors beep when opening and closing                                                                                              |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10450 | A | Check door lights are green when open for all doors                                                                                            |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10451 | A | Check door lights are red when closing from all doors                                                                                          |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10452 | A | Launch the door cycle test from the DDU                                                                                                        |  | OK |   | Amanda Ntuli - 526239           | 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 |   | Amanda Ntuli - 526239           | Train |
| 10454 | R | Door cycle test is successful                                                                                                                  |  | OK |   | Amanda Ntuli - 526239           | Train |
| 10455 | I | End Test                                                                                                                                       |  | OK |   | Amanda Ntuli - 526239           | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 20 – Traction Interlock

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### 20.3 Instructions list

### 20.3.1 031\_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            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10002 | I    | Initial Conditions                                                   |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10003 | I    | The direction selector switch 30A1.S2 should be in NEUTRAL position  |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10004 | I    | All doors should be closed                                           |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10005 | I    | Emergency brake should be applied                                    |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10006 | I    | PEA override switch should be in NORMAL position                     |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10007 | I    | Traction Interlock override switch 31S1 should be in NORMAL position |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10008 | I    | Backup mode switch 27S1 should be in NORMAL position                 |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10009 | I    | Start of Test                                                        |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10010 | I    | Traction Interlock TC1                                               |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10011 | A    | Active cab on TC1                                                    |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10012 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                   |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10013 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                   |      | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0            |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0           |      | OK            | 0            | Sizwe Sibanyoni - 484647 | Train   |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10024 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10025 | I | Emergency brake is released                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10036 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10037 | I | Emergency brake is released                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10048 | I | Traction interlock with Doors TC1                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10049 | A | Manually open any door                                                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10050 | R | LED 51H1 is "ON" on alarm module                                           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10061 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10062 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10063 | R | The opened door will automatically close                               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10074 | A | Activate any PEA                                                       |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10075 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10076 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10077 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10088 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10099 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10100 | A | Activate any PEA                                                       |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10101 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10112 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10113 | A | Close the door opened above manually                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10114 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10125 | A | Press the red button 44S1 to make an emergency brake                                                             |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10126 | R | Contactor of 44K12 and 44K11 are de-energized                                                                    |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                                        |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                                        |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                             |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                             |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                           |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                           |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10137 | A | Release the red button 44S1 for emergency brake                                                                  |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10138 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                                        |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                                        |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                                       |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10149 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10150 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10161 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10162 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10173 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10174 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10175 | A | Put the direction selector switch in<br>NEUTRAL Position               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                                                  |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                                        |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                                        |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                                       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                           |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10186 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                                                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10187 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                                                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10188 | I | Traction Interlock Override TC1                                                                                  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10189 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position                                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | 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 |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                                        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                                        |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tInotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tInotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tInotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10201 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tInotInhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_tINotInhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tINotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tInotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tInotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tInotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10212 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                             |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10213 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                             |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10214 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10215 | A | Remove active cab on TC1                                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10216 | I | Traction Interlock TC2                                                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10217 | A | Active Cab on TC2                                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10218 | I | The direction selector switch 30A1.S2<br>should be in NEUTRAL position     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10219 | I | All doors should be closed                                                 |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10220 | I | Emergency brake should be applied                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10221 | I | PEA override switch should be in<br>NORMAL position                        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10222 | I | Traction Interlock override switch 31S1<br>should be in NORMAL position    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10223 | I | Backup mode switch 27S1 should be in<br>NORMAL position                    |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10224 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10225 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0                   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10236 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10237 | I | Emergency brake is released                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10248 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10249 | I | Emergency brake is released                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10258 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10260 | I | Traction Interlock with Doors TC2                                          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10261 | A | Manually open any door                                                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10262 | R | LED 51H1 is "ON" on alarm module                                           |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10273 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10274 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10275 | R | The opened door will automatically close                               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0               |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10282 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10286 | A | Activate any PEA                                                       |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10287 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10288 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10289 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10300 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni - 484647 | Train |
| 10307 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10311 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10312 | A | Activate any PEA                                                       |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10313 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Sizwe Sibanyoni - 484647 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10324 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10325 | A | Close the door opened above manually                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10326 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                                           |  |    |   |                             |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10337 | A | Press the red button 44S1 to make an<br>emergency brake                                   |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0                      |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0                      |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10348 | A | Release the red button 44S1 for<br>emergency brake                                        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10349 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10351 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10353 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10360 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10361 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10372 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10373 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10380 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10384 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10385 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10386 | A | Put the direction selector switch in<br>NEUTRAL position               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10397 | I | Traction Interlock Override TC2                                        |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10398 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position         |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 1.0 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |

|       |   |                                                                            |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10405 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10409 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position               |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Sizwe Sibanyoni -<br>484647 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Sizwe Sibanyoni -<br>484647 | Train |
| 10420 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |
| 10421 | I | End of Test                                                                |  | OK |   | Sizwe Sibanyoni -<br>484647 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 21 – Deadman

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### 21.3 Instructions list

### 21.3.1 060\_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<br>switch 30A1.S4 and hold while reading<br>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<br>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<br>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 =<br>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_tlnb = 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                                                                              | DM | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 1.0                            |    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | 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                                               | DM | 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]                                                                   |    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                    |    |    |   |                                       |       |
|-------|---|------------------------------------------------------------------------------------|----|----|---|---------------------------------------|-------|
|       |   | (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 1.0                                             |    |    |   |                                       |       |
| 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 FORWARD again to reset the emergency 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<br>Mabundzane - 418320 | Train |
| 10059 | I | After 45s, emergency brake is applied                                              | DM | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10060 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON             |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0               |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10062 | A | Release the Master controller                                                      |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10063 | A | Select the driving direction to NEUTRAL position                                   |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10065 | A | Remove active cab on TC1                                                           |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10066 | I | Deadman Override TC2                                                               |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10067 | A | Active cab on TC2                                                                  |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10068 | I | Deadman override switch 60S1 must be in NORMAL position                            |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 0.0               |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10070 | A | Put the Deadman override switch 60S1 to OVERRIDE position                          | DM | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10071 | R | Verify on the DDU that the Deadman override indication is ON                       |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                          |  |    |   |                                       |       |
|-------|---|------------------------------------------------------------------------------------------|--|----|---|---------------------------------------|-------|
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 1.0                     |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10073 | R | Lamp 60H2 is ON                                                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10074 | A | Put the override switch 60S1 in NORMAL position                                          |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 0.0                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10076 | R | Lamp 60H2 is OFF                                                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10077 | I | Deadman by Master Controller TC2                                                         |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10079 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 1.0                            |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10081 | A | Release the master controller                                                            |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10083 | I | Deadman by button 60S3 TC2                                                               |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10085 | A | Press the button 60S3 and hold it while reading the variable below                       |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 1.0                            |  | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10087 | A | Release the button 60S3                                                                  |  | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0                     |  | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                              |    |    |   |                                       |       |
|-------|---|----------------------------------------------------------------------------------------------|----|----|---|---------------------------------------|-------|
| 10090 | I | Deadman functional test TC2                                                                  |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 0.0                               |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 0.0                            |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10093 | A | Select Driving Direction to FORWARD                                                          |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                         |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10095 | I | After 2.5 seconds buzzer starts beeping                                                      |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10096 | R | lamp 60H1 is ON                                                                              | DM | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10097 | R | Verify on the DDU screen that the<br>Deadman active indication is ON                         |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 1.0                            |    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 1.0                               |    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10100 | 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 |
| 10101 | A | Press and hold down the master controller<br>for about 2s                                    |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10102 | R | Lamp 60H1 is OFF                                                                             |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10103 | R | No sound from buzzer                                                                         |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10104 | A | Release the master controller                                                                |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                         |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10106 | R | After 2.5 seconds buzzer starts beeping                                                      |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10107 | R | After 5 seconds, emergency brake is<br>applied                                               | DM | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10108 | R | Verify on the DDU screen that the<br>emergency brake applied by Deadman<br>indication is ON  |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |

|       |   |                                                                                    |    |    |   |                                       |       |
|-------|---|------------------------------------------------------------------------------------|----|----|---|---------------------------------------|-------|
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 1.0               |    | OK | 1 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10110 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                               |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10112 | A | Press down the Master controller and hold                                          |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10113 | R | After 45s, emergency brake is applied                                              | DM | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10114 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON             |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0               |    | OK | 0 | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10116 | A | Release the Master controller                                                      |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10117 | A | Select the driving direction to NEUTRAL position                                   |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |
| 10118 | I | End of test                                                                        |    | OK |   | Hlawulani Nick<br>Mabundzane - 418320 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 22 – Rescue Mode and Emergency Disconnection

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### 22.3 Instructions list

### 22.3.1 027\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                                  |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Train in Normal mode with LV ready                                                  |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Emergency brake is applied due to no direction selected on Train                    |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | The Blue button 27S5 must be released in TC1 and TC2                                |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Start of Test                                                                       |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | I    | Back-up Mode TC1                                                                    |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | A    | Put the switch 27S1 in BACKUP position                                              |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | The TCMS is not available on the DDU screen                                         |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | Lamp 27H2 is ON                                                                     |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Timer 60.0 S                                                                        |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | Both pantographs are raised                                                         |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Both HSCBs are closed                                                               |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | R    | Both ACUs are operational, sound can be heard from outside the train                |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | All four traction units are in operation, sound can be heard from outside the train |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | R    | There is a gradual increase in the main pipe pressure                               |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | R    | HVAC units are operational in all cars                                              |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                               |  |    |  |                         |       |
|-------|---|---------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10018 | R | Emergency lighting is ON in all cars                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10019 | I | Emergency Disconnection TC1                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10020 | A | Push the button 27S5 to disconnect pantographs and open HSCBs |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10021 | R | Both pantographs are lower and HSCBs are open                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10022 | A | Release the button 27S5                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10023 | I | Traction authorization TC1                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10025 | R | TA is authorized                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10026 | R | Lamp 31H1 is ON on the alarm module                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10027 | A | Put the direction selector switch in NEUTRAL position         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10028 | R | TA is not authorized                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10029 | R | Lamp 31H1 is OFF on the alarm module                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10030 | I | Doors Operation TC1                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10031 | A | Press the auth button 50S5 to open left doors                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10032 | R | Check visually that all left doors are open                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10033 | A | Press the auth button 50S6 to open right doors                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10034 | R | Check visually that all right doors are open                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10035 | A | Press the button 50S3 to close all the left doors             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10036 | R | Check visually that all left doors are closed                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10037 | A | Press the button 50S4 to close all right doors                |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                  |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10038 | R | Check visually that all right doors are closed                                                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10039 | I | Emergency Brake TC1                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10040 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10041 | A | Apply emergency brake using the red button 44S1                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10042 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10043 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10044 | A | Release the emergency brake button 44S1                                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10045 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10046 | A | Apply emergency brake using by putting the Master Controller in Emergency brake position                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10047 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10048 | A | Put the Master controller in OFF position                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10049 | A | Put the direction selector switch in NEUTRAL position                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10050 | A | Switch OFF the train by putting the switch 18S1 in OFF position                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10051 | A | Remove active cab on TC1                                                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10052 | I | Back-up Mode TC2                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10053 | R | Train is OFF                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10054 | A | Active Cab on TC2                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10055 | A | Switch ON the train using battery contactor 18S1                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                     |                                                                                   |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10056 | R | Train start-up in Normal mode, the TCMS is available on the DDU screen              |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10057 | A | Put the backup mode switch 27S1 in BACKUP position                                  |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10058 | R | The TCMS is no longer available on the DDU screen                                   |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10059 | R | Lamp 27H2 is ON                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10060 | A | Timer 60.0 S                                                                        |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10061 | R | Both pantographs are raised                                                         |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10062 | R | Both HSCBs are closed                                                               |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10063 | R | Both ACUs are operational, sound can be heard from outside the train                |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10064 | R | All four traction units are in operation, sound can be heard from outside the train |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10065 | R | There is a gradual increase in the main pipe pressure                               |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10066 | R | HVAC units are operational in all cars                                              |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10067 | R | Emergency lighting is ON in all cars                                                |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10068 | I | Traction authorization TC2                                                          |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10069 | A | Put the direction selector switch in FORWARD position                               |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10070 | R | TA is authorized                                                                    |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10071 | R | Lamp 31H1 is "ON" on the alarm module                                               |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10072 | R | Relay 31K1 and 31K2 are energized                                                   |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10073 | A | Put the direction selector switch in NEUTRAL position                               |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10074 | R | TA is not authorized                                                                |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10075 | R | Lamp 31H1 is OFF on the alarm module                                                |                                                                                   | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                         |  |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10076 | R | Relay 31K1 and 31K2 are de-energized                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10077 | I | Doors Operation TC2                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10078 | A | Press the auth button 50S5 to open left doors                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10079 | R | Check visually that all left doors are open                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10080 | A | Press the auth button 50S6 to open right doors                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10081 | R | Check visually that all right doors are open                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10082 | A | Press the button 50S3 to close all the left doors                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10083 | A | Put the direction selector switch in FORWARD position                                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10084 | R | Check visually that all left doors are closed                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10085 | A | Press the button 50S4 to close all right doors                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10086 | R | Check visually that all right doors are closed                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10087 | I | Emergency Brake TC2                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10088 | A | Put the direction selector switch in NEUTRAL and again in FORWARD position to reset the emergency brake |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10089 | A | Apply emergency brake using the red button 44S1                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10090 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10091 | R | Release the emergency brake button 44S1                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10092 | A | Apply emergency brake using by putting the Master controller in Emergency brake position                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10093 | R | Emergency brake is applied, lamp 44H4 is ON                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                  |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10094 | A | Put the Master controller in OFF position                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10095 | R | Emergency brake is applied                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10096 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10097 | I | Emergency Disconnection TC2                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10098 | A | Push the button 27S5 to disconnect pantographs and open HSCBs                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10099 | R | Both pantographs are lower and HSCBs are open                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10100 | A | Release the button 27S5                                                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10101 | A | Put the direction selector switch in NEUTRAL position                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10102 | A | Switch OFF the train by putting the switch 18S1 in OFF position                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10103 | R | Train is OFF                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10104 | A | Restart the train in Normal mode                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10105 | I | End of Test                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 23 – ERTMS

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### 23.3 Instructions list

### 23.3.1 062\_ERTMS-ERTMS

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

| N°    | Type | Instruction                                                                                                       | File                                                                                | Result status | Result value         | Operator                  | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|----------------------|---------------------------|---------|
| 10001 | I    | ERTMS SPP=062                                                                                                     |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10002 | I    | Safety Precautions                                                                                                |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10003 | R    | The ERTMS Warning Signs are attached in both ends underneath                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10004 | I    | No one should go near the Eurobalise Antennas during the test                                                     |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10005 | I    | ERTMS sim cards installation                                                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10006 | A    | Record the serial number of the sim card and install the sim cards on MT1 and MT2 cards respectively              |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10007 | R    | Serial number for sim card installed on MT1<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 8926042160520004290  | Amanda Ntuli - 526239     | Train   |
| 10008 | R    | Serial number for sim card installed on MT2<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520004289 | Amanda Ntuli - 526239     | Train   |
| 10009 | I    | ERTMS Complete Test                                                                                               |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10010 | I    | Perform the complete static test using the following procedure:                                                   |  | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10011 | R    | Static Test is complete                                                                                           |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10012 | I    | ERTMS Functional Test                                                                                             |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10013 | I    | The functional test should only be performed once ALL the software has been loaded and the Complete Test is done. |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10014 | I    | ERTMS Bypass                                                                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10015 | A    | Activate cab TC1                                                                                                  |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10016 | A    | Put the ERTMS isolation switch 62S1 in ISOLATION position                                                         |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |

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

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10035 | R | ERTMS HMI is ON in TC1                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10036 | I | ERTMS Fault Monitoring (SPP M 62/13)                                         |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10037 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10038 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10039 | A | Remove -62XP1_X06 connector                                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10040 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsdc = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmstemp = 0.0                 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsfan = 0.0                  |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10045 | I | TEMPERATURE + FAN                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10046 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10047 | A | Apply a shunt between pins 42 and 60, pin 78 and 96 on -62XP1_X06 connector. |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10048 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmstemp = 1.0                 |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsfan = 1.0                  |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10051 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10052 | A | Remove all jumpers and put back the connector -62XP1_X06                     |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10053 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10054 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10055 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcddc = 1.0                   |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10057 | I | 110v/24v converters                                                          |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10058 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10059 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10060 | A | Remove one DC/DC power supply                                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10061 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10062 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcddc = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10064 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10065 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10066 | A | Put back the DC/DC power supply                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10067 | I | INTERNAL CIRCUIT BREAKERS                                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10068 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10069 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10070 | A | Open circuit breaker F01 and close all other circuit breakers from F02 - F20 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscbb = 0.0                     |  | OK | 0 | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                        |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10072 | A | Close circuit breaker F01 on ERTMS - 62A1 module                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 1.0                |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10074 | A | Open circuit breaker S01 on ERTMS - 62A1 module                        |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10075 | R | ERTMS EVC unit is OFF                                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10076 | A | Normalize everything inside LV4 and leave all circuit breakers closed. |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10077 | I | End of Test                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 24 – On-board train data recorder

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### 24.3 Instructions list

### 24.3.1 061\_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            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10003 | I    | Software must be updated in the OTDR with the latest baseline following below procedure            |  | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10004 | I    | Software must be updated in the CPM according to the latest baseline following the below procedure |  | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10005 | I    | Train should be OFF                                                                                |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10006 | I    | Start of Test                                                                                      |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10007 | A    | Prepare the train with active cabin on TC1                                                         |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                             |                                                                                   | OK            | 1            | Sizwe Sibanyoni - 484647 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                              |                                                                                   | OK            | 2            | Sizwe Sibanyoni - 484647 | Train   |
| 10010 | I    | Speedometer Test TC1                                                                               |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10011 | A    | Remove Active Cabin on TC1 and activate it again                                                   |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10012 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10013 | R    | Speedometer lamp is ON                                                                             |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10014 | A    | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0                                                   |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10015 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |
| 10016 | A    | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest                                                       |                                                                                   | OK            |              | Sizwe Sibanyoni - 484647 | Train   |

|       |   |                                                                             |  |    |  |                          |       |
|-------|---|-----------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10017 | I | OTDR Reset                                                                  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10018 | I | When OTDR is resetting, the power supply LED will go OFF and ON             |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10019 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr1 = 1.0                                  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10020 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr2 = 1.0                                  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10021 | R | OTDR is OFF                                                                 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10022 | I | During OTDR reset, the driver receives a warning about a loss in the OTDR.  |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10023 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr1                                      |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10024 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr2                                      |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10025 | I | OTDR is ON and reset                                                        |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10026 | I | Data Recording                                                              |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10027 | I | Please note the time one the DDU screen before performing the actions below |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10028 | A | Put the Traction Interlock Switch 31S1 in OVERRIDE position                 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10029 | A | Put the Traction Interlock Switch 31S1 in NORMAL position                   |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10030 | A | Pull any PEA on train                                                       |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10031 | A | Acknowledge the PEA using the button 54S3                                   |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10032 | A | Reset PEA using Switch 44S6                                                 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10033 | A | Put the emergency brake loop override switch 44S2 in BYPASS position        |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10034 | A | Put the emergency brake loop override switch 44S2 in NORMAL position        |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10035 | A | Open HSCB using 22S12                                                       |  | OK |  | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                                                       |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10036 | A | Put the Direction Selector Switch in FORWARD position                                                 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10037 | A | Put the Direction Selector Switch in NEUTRAL position                                                 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10038 | A | Put the Direction Selector Switch in REVERSE position                                                 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10039 | A | Put the Driving Mode Switch to COUPLE/WASH mode                                                       |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10040 | A | Before the next step verify that the HSCB is OPEN on the DDU - There is a risk of train movement      |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10041 | A | Put the Master Controller in TRACTION position                                                        |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10042 | A | Put the Master Controller in BRAKE position                                                           |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10043 | A | Put the Master Controller in OFF position                                                             |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10044 | A | Put the Direction Selector Switch in NEUTRAL position                                                 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10045 | A | Push the RED Emergency brake button 44S1                                                              |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10046 | A | Release Emergency brake button                                                                        |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10047 | A | Put the Door authorization Selector Switch 50S7 in DRIVER position                                    |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10048 | A | Press the right door authorization button 50S6                                                        |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10049 | A | Press the right door open button 50S2 again and then close the door the right doors using button 50S4 |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10050 | A | Press the left door authorization button 50S5                                                         |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10051 | A | Press the left door open button 50S1 again and then close the door the left doors using button 50S3   |  | OK |  | Sizwe Sibanyoni - 484647 | Train |
| 10052 | A | Put the Door authorization Selector Switch 50S7 in ERTMS position                                     |  | OK |  | Sizwe Sibanyoni - 484647 | Train |

|       |   |                                                                                                                                                                                                               |                                                                                     |    |  |                               |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------------|-------|
| 10053 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position                                                                                                                                                     |                                                                                     | OK |  | Sizwe Sibanyoni - 484647      | Train |
| 10054 | A | Put the ERTMS isolation switch 62S1 in NORMAL position                                                                                                                                                        |                                                                                     | OK |  | Sizwe Sibanyoni - 484647      | Train |
| 10055 | A | Note the time on the DDU                                                                                                                                                                                      |                                                                                     | OK |  | Sizwe Sibanyoni - 484647      | 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 specific trainset folder. |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 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 |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 25 – Train Ground Communication

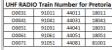
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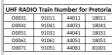
### 25.3 Instructions list

### 25.3.1 063\_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            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10002 | I    | GSMR - Functional Test TC1                                                                                                   |      | OK            |                      | Mpumelelo Sithole - 529980 | 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            | 89260420160520003652 | Mpumelelo Sithole - 529980 | Train   |
| 10004 | A    | Insert the SIM card into the GSMR Radio                                                                                      |      | OK            |                      | Mpumelelo Sithole - 529980 | 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            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10006 | A    | On the GSMR HMI, verify radio is not faulty                                                                                  |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10007 | A    | Active cab in TC1                                                                                                            |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10008 | I    | DDU-HMI Connection                                                                                                           |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10009 | A    | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                           |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10010 | R    | The time is the same (allowable difference of <10s)                                                                          |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10011 | I    | PACIS-HMI Connection                                                                                                         |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10012 | A    | Lift the GSMR handset                                                                                                        |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10013 | A    | Press the PA button on the GSMR HMI                                                                                          |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10014 | R    | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |
| 10015 | R    | The PA indication alarm sounds in all cars                                                                                   |      | OK            |                      | Mpumelelo Sithole - 529980 | Train   |

|       |   |                                                                                                                                                |                                                                                   |    |                      |                            |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----------------------|----------------------------|-------|
| 10016 | A | Press the PTT on the handset and speak into the handset microphone                                                                             |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10017 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10018 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10019 | I | UHF Radio Test TC1                                                                                                                             |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10020 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10021 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | 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 |                      | Mpumelelo Sithole - 529980 | Train |
| 10023 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10024 | I | GSMR - Functional Test TC2                                                                                                                     |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10025 | A | Active Cab in TC2                                                                                                                              |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | 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 | 89260420160520003653 | Mpumelelo Sithole - 529980 | Train |
| 10027 | A | Insert the SIM card into the GSMR Radio                                                                                                        |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | 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 |                      | Mpumelelo Sithole - 529980 | Train |
| 10029 | A | On the GSMR HMI, verify radio is not faulty                                                                                                    |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10030 | I | DDU-HMI Connection                                                                                                                             |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |
| 10031 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                                             |                                                                                   | OK |                      | Mpumelelo Sithole - 529980 | Train |

|       |   |                                                                                                                                                |                                                                                     |    |  |                            |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|----------------------------|-------|
| 10032 | R | The time is the same (allowable difference of <10s)                                                                                            |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10033 | I | PACIS-HMI Connection                                                                                                                           |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10034 | A | Lift the GSMR handset                                                                                                                          |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10035 | A | Press the PA button on the GSMR HMI                                                                                                            |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10036 | R | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                                  |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10037 | R | The PA indication alarm sounds in all cars                                                                                                     |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10038 | A | Press the PTT on the handset and speak into the handset microphone                                                                             |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10039 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10040 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10041 | I | UHF Radio Test TC2                                                                                                                             |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10042 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |  | Mpumelelo Sithole - 529980 | Train |
| 10043 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | 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 |  | Mpumelelo Sithole - 529980 | Train |
| 10045 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                     | OK |  | Mpumelelo Sithole - 529980 | Train |

### 25.3.2 064\_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            |              | Mpumelelo Sithole - 529980    | Train   |
| 10002 | I    | Software upload                                                                                                                                                                                                                                                              |                                                                                     | OK            |              | Mpumelelo Sithole - 529980    | Train   |
| 10003 | I    | Use the below procedure to install the software on the Netbox(M1)                                                                                                                                                                                                            |                                                                                     | OK            |              | Mpumelelo Sithole - 529980    | Train   |
| 10004 | A    | -Open the NBX (64Q1) circuit breaker<br>-Insert the programmed USB into the slot<br>-Close the NBX (64Q1) circuit breaker<br>-Device is on and software upload begins<br><br>Upload is complete when all LEDs on rows A and C are steady, on and green as the image attached |    | OK            |              | Mpumelelo Sithole - 529980    | Train   |
| 10005 | I    | Netbox configuration check                                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Mpumelelo Sithole - 529980    | Train   |
| 10006 | A    | Perform the attached procedure to configure the Netbox (M1)                                                                                                                                                                                                                  |  | OK            |              | Mpumelelo Sithole - 529980    | Train   |
| 10007 | R    | The Netbox is configured correctly                                                                                                                                                                                                                                           |                                                                                     | OK            |              | Mpumelelo Sithole - 529980    | 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

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### 26.3 Instructions list

### 26.3.1 033\_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            |              | Nqobile Chirwa - 484648 | Train   |
| 10002 | I    | Initial Conditions                                                                                |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10003 | I    | Train is prepared with High voltage                                                               |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10004 | I    | Master controller is in OFF position                                                              |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10005 | I    | All traction units are in black colour on the DDU maintenance screen                              |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10006 | I    | Start of Test                                                                                     |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10007 | A    | Put the driving selector switch in FORWARD position                                               |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10008 | R    | Check on the DDU that all traction units are in FWD position                                      |  | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10009 | A    | Put the driving selector switch in REVERSE position                                               |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10010 | R    | Check on the DDU that all traction units are in REV position                                      |  | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10011 | A    | Put the driving selector switch in NEUTRAL position                                               |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10012 | I    | Traction Fault and reset                                                                          |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10013 | A    | Open HSCB using button 22S12                                                                      |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10014 | A    | Open the circuit breaker 33Q3 in M4 car                                                           |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10015 | R    | Traction unit of M4 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10016 | A    | Close the circuit breaker 33Q3                                                                    |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10017 | A    | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK            |              | Nqobile Chirwa - 484648 | Train   |

|       |   |                                                                                                   |                                                                                     |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10018 | R | Traction unit for M4 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10019 | A | Open the circuit breaker 33Q3 in M1 car                                                           |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10020 | R | Traction unit of M1 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Nqobile Chirwa - 484648 | Train |
| 10021 | A | Close circuit breaker 33Q3 in M1 car                                                              |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10022 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10023 | R | Traction unit for M1 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10024 | A | Open the circuit breaker 33Q3 in M2 car                                                           |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10025 | R | Traction unit of M2 appear in fault on the DDU and an IOS is generated about loss of traction 25% |   | OK |  | Nqobile Chirwa - 484648 | Train |
| 10026 | A | Close the circuit breaker 33Q3 in M2 car                                                          |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10027 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10028 | R | Traction unit for M2 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10029 | A | Open the circuit breaker 33Q3 in M3 car                                                           |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10030 | R | Traction unit of M3 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK |  | Nqobile Chirwa - 484648 | Train |
| 10031 | A | Close the circuit breaker 33Q3 in M3 car                                                          |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10032 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |
| 10033 | R | Traction unit for M3 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Nqobile Chirwa - 484648 | Train |

|       |   |                                |  |    |  |                            |       |
|-------|---|--------------------------------|--|----|--|----------------------------|-------|
| 10034 | A | Close HSCBs using button 22S11 |  | OK |  | Nqobile Chirwa -<br>484648 | Train |
| 10035 | I | End of Test                    |  | OK |  | Nqobile Chirwa -<br>484648 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 27 – External lights and Signaling

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### 27.3 Instructions list

### 27.3.1 072\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                        |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | The air in the main should be at least 7.5bar                             |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Start of Test                                                             |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Windscreen wiper TC1                                                      |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | A    | Active cab on TC1                                                         |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | A    | Load the software on the TC1 wiper                                        |   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | I    | Washer tank is empty                                                      |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | The IOS for low level on water tank appears on the Driver's event list    |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 0.0              |                                                                                     | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Fill up the washer tank with clean water                                  |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 1.0              |                                                                                     | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | No IOS regarding low water level on Driver's event list                   |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | I    | This test is to verify that the Wiper is centred                          |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | A    | Put the wiper switch on Wash position                                     |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | R    | Water is spraying on the windscreen; the wiper is cleaning the windscreen |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | A    | Put the wiper switch to intermittent position                             |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                                                                                         |                                                                                   |    |   |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10018 | R | The wiper is operating properly on intermittent position                                                                                |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10019 | A | Put the wiper switch to low speed position                                                                                              |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10020 | R | The wiper is operating properly on low speed                                                                                            |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10021 | A | Put the wiper switch to high speed position                                                                                             |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10022 | R | Verify that the wiper does not lie too much on the left or right                                                                        |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10023 | A | Verify that the area wiped is at least as shown in the image attached                                                                   |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10024 | A | Put the swiper switch on OFF position                                                                                                   |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10025 | R | Wiper stops, no water is spraying on windscreen                                                                                         |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10026 | I | Mirrors TC1                                                                                                                             |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10027 | A | Login as a Maintainer ID: 70979080                                                                                                      |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10028 | I | It is necessary to open and close each mirror several times to ensure that it is working properly                                       |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10029 | A | Press the DOOR AUTH left button 50S5                                                                                                    |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10030 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1LeftMirror = 1.0                                                                             |                                                                                   | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                            |                                                                                   | OK | 0 | Celiwe Sokhela - 491462 | 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 |   | Celiwe Sokhela - 491462 | Train |
| 10034 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |
| 10035 | A | Press 50S3 left door close button                                                                                                       |                                                                                   | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                         |  |    |   |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10036 | R | The mirror is properly closed                                                                                                           |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10039 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10040 | A | Turn the switch 70S10 to the right to open the right mirror                                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela - 491462   | 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 |   | Alleta Sekgololo - 417407 | Train |
| 10044 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10045 | A | Press 50S4 right door close button                                                                                                      |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10046 | R | The mirror is properly closed                                                                                                           |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10049 | A | Press the DOOR AUTH left button 50S5                                                                                                    |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10050 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 1.0                                                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10051 | R | Left mirror is open                                                                                                                     |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10052 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 0.0                                                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10053 | R | Left mirror closes                                                                                                                      |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10054 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Celiwe Sokhela - 491462   | Train |

|       |   |                                                                                |                                                                                     |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10055 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 1.0                                   |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10056 | R | Right mirror opens                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10057 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 0.0                                   |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10058 | R | Right mirror closes                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10059 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10060 | A | Release [TT] (MPU1)lo_sgl_tc1leftmirror                                        |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10061 | A | Release [TT] (MPU1)lo_sgl_tc1rightmirror                                       |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10062 | A | Isolate the valve H1.5/1 and H1.5/2                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10063 | R | Check that the left and right mirrors can be folded manually                   |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10064 | A | Normalise the valve H1.5/1 and H1.5/2                                          |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10065 | A | Login on the DDU screen using the driver's code 70787878                       |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10066 | A | Go to Command Screen                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10067 | A | Authorise OPEN DOOR LEFT and RIGHT using the button 50S5 and 50S6 respectively |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10068 | A | On the DDU Command screen, open the left mirror using the virtual button       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10069 | R | Left mirror opens                                                              |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10070 | A | Press virtual button to open right mirror                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10071 | R | Right mirror opens                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10072 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10073 | R | Both mirrors close                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10074 | A | Remove active cab on TC1                                                       |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                           |                                                                                     |    |   |                         |       |
|-------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10075 | I | External visibility TC2                                                   |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10076 | I | Windscreen wiper TC2                                                      |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10077 | A | Active cab on TC2                                                         |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10078 | I | Load the software on the TC2 wiper                                        |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10079 | I | Washer tank is empty                                                      |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10080 | R | The IOS for low level on water tank appears on the Driver's event list    |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2WasherLevel = 0.0           |                                                                                     | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10082 | A | Fill up the washer tank with clean water                                  |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2WasherLevel = 1.0           |                                                                                     | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10084 | R | No IOS regarding low water level on Driver's event list                   |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10085 | I | This test is to verify that the Wiper is centred                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10086 | A | Put the swiper switch on Wash position                                    |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10087 | R | Water is spraying on the windscreen, the wiper is cleaning the windscreen |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10088 | A | Put the wiper switch to intermittent position                             |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10089 | R | The wiper is operating properly on intermittent position                  |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10090 | A | Put the wiper switch to low speed position                                |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10091 | R | The wiper is operating properly on low speed                              |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10092 | A | Put the wiper switch to high speed position                               |                                                                                     | OK |   | Celiwe Sokhela - 491462 | Train |
| 10093 | A | Verify that the wiper does not lie too much on the left or right          |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                         |  |    |   |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10094 | R | Verify that the area wiped is at least as shown in the image above                                                                      |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10095 | A | Put the wiper switch on OFF position                                                                                                    |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10096 | R | Wiper stops, no water is spraying on windscreen                                                                                         |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10097 | I | Mirrors TC2                                                                                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10098 | A | Login as a Driver. ID:70787878                                                                                                          |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10099 | I | It is necessary to open and close each mirror several times to ensure that it is working properly                                       |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10100 | A | Press the DOOR AUTH left button 50S5                                                                                                    |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10101 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 1.0                                                                          |  | OK | 1 | Celiwe Sokhela - 491462   | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela - 491462   | 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 |   | Alleta Sekgololo - 417407 | Train |
| 10105 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10106 | A | Press 50S3 left door close button                                                                                                       |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10107 | R | The mirror is properly closed                                                                                                           |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10110 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Celiwe Sokhela - 491462   | Train |
| 10111 | A | Turn the switch 70S10 to the right to open the right mirror                                                                             |  | OK |   | Celiwe Sokhela - 491462   | Train |

|       |   |                                                                                                                                         |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 1.0                                                                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | 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 |   | Celiwe Sokhela -<br>491462 | Train |
| 10115 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10116 | A | Press 50S4 right door close button                                                                                                      |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10117 | R | The mirror is properly closed                                                                                                           |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10120 | A | Press the DOOR AUTH left button 50S5                                                                                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 28 – CCTV Video Information

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### 28.3 Instructions list

### 28.3.1 055\_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            |              | Amanda Ntuli - 526239 | Train   |
| 10002 | I    | Front camera footage TC1                                          |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10003 | A    | Active Cab on TC1 and Login as Driver:<br>70787878                |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10004 | A    | Press and hold the FRONT EVENT<br>BUTTON 66S1 on TC1              |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10005 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 1.0 |                                                                                     | OK            | 1            | Amanda Ntuli - 526239 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 1.0 |                                                                                     | OK            | 1            | Amanda Ntuli - 526239 | Train   |
| 10007 | R    | The FRONT EVENT button lamp 66S1 is<br>ON                         |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10008 | A    | Release the button 66S1                                           |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK            | 0            | Amanda Ntuli - 526239 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK            | 0            | Amanda Ntuli - 526239 | Train   |
| 10011 | R    | The FRONT EVENT button lamp 66S1 is<br>OFF                        |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10012 | A    | On the DDU screen, check if the Camera is<br>correctly adjusted   |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10013 | A    | The picture on the DDU should be as the<br>picture attached.      |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10014 | I    | Reverse direction front camera functional<br>test TC1             |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10015 | A    | Put the direction selector switch in<br>REVERSE position          |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |

|       |   |                                                                   |                                                                                     |    |   |                       |       |
|-------|---|-------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10016 | R | CCTV footage of TC2 front camera appears on the DDU               |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10017 | A | Put the direction selector switch in NEUTRAL position             |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10018 | R | CCTV footage of TC2 front camera does not appear on the DDU       |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10019 | A | Remove active cab on TC1                                          |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10020 | I | Front camera footage TC2                                          |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10021 | A | Active cab on TC2 and Login as Driver: 70787878                   |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10022 | A | Press and hold the FRONT EVENT BUTTON 66S1 on TC2                 |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc2CctvEventPbR1 = 1.0 |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc2CctvEventPbR2 = 1.0 |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10025 | R | The FRONT EVENT button lamp 66S1 is ON                            |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10026 | A | Release the button 66S1                                           |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10029 | R | The FRONT EVENT button lamp 66S1 is OFF                           |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10030 | A | On the DDU screen, check if the Camera is correctly adjusted      |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10031 | A | The picture on the DDU should be as the picture attached.         |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10032 | I | Reverse direction front camera functional test TC2                |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10033 | A | Put the direction selector switch in REVERSE position             |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                                                                                                                                  |                                                                                     |    |  |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-----------------------|-------|
| 10034 | R | CCTV footage of TC1 front camera appears on the DDU                                                                                                                                                                                              |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10035 | A | Put the direction selector switch in NEUTRAL position                                                                                                                                                                                            |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10036 | R | CCTV footage of TC1 front camera does not appear on the DDU                                                                                                                                                                                      |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10037 | I | NVR Recording                                                                                                                                                                                                                                    |                                                                                     | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10039 | R | The TC1 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10040 | R | The TC2 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10041 | A | Using the procedure attached, confirm that both NVRs are recording video data                                                                                                                                                                    |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10042 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR1                                                                                                                                                   |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10043 | R | save the screenshot as TSXX_NVR1                                                                                                                                                                                                                 |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10044 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR2                                                                                                                                                   |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10045 | R | Save the screenshot as TSXX_NVR2                                                                                                                                                                                                                 |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 29 – PACIS

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### 29.3 Instructions list

### 29.3.1 054\_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            |              | Tebogo Mtombeni - 529938 | Train   |
| 10002 | I    | Software Upload                                                                                                                                                                         |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10003 | A    |                                                                                                                                                                                         |    | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10004 | A    |                                                                                                                                                                                         |    | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10005 | A    |                                                                                                                                                                                         |    | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10006 | R    | Verify on the DDU, referring to the baseline spreadsheet, that all Pacis devices are updated with the latest software versions                                                          |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10007 | I    | Camera Orientation                                                                                                                                                                      |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | 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            |              | Tebogo Mtombeni - 529938 | 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            |              | Tebogo Mtombeni - 529938 | Train   |
| 10010 | A    | Please note any cameras showing green strips or unclear images should be updated settings using the attached procedure                                                                  |  | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10011 | R    | The Saloon cameras on TC1 have been adjusted according to image above.                                                                                                                  |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10012 | R    | The Saloon cameras on M4 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10013 | R    | The Saloon cameras on M1 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |

|       |   |                                                                                         |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10014 | R | The Saloon cameras on M2 have been adjusted according to image above.                   |  | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10015 | R | The Saloon cameras on M3 have been adjusted according to image above.                   |  | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10016 | R | The Saloon cameras on TC2 have been adjusted according to image above.                  |  | NE |   |                          | Train |
| 10017 | I | Mission Number Display                                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10018 | A | Active Cab in TC1                                                                       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10019 | A | Login as a driver, ID: 70787878                                                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10020 | A | Enter the mission 8100                                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10021 | R | Check that the TC1 and TC2 front external displays are showing the mission number 8100. |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10022 | I | Public Announcements TC1                                                                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                              |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                              |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10025 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10026 | R | Green lamp 54H2 is ON                                                                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10027 | R | A beep sound can be heard in all saloon speakers                                        |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10028 | R | On Driver's screen (Home Page), PA activation message is displayed                      |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10029 | A | Press the button 54S4 and hold it while talking via the microphone                      |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10030 | I | It is necessary to go to each and every speaker to verify sound is coming out           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10031 | R | Announcement can be heard in saloon speakers of TC1                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                                                |                                                                                     |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10032 | R | Announcement can be heard in saloon speakers of M4                                                                                                             |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10033 | R | Announcement can be heard in saloon speakers of M1                                                                                                             |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10034 | R | Announcement can be heard in saloon speakers of M2                                                                                                             |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10035 | R | Announcement can be heard in saloon speakers of M3                                                                                                             |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10036 | R | Announcement can be heard in saloon speakers of TC2                                                                                                            |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10037 | A | Release the button 54S4                                                                                                                                        |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10038 | A | Talk on the microphone                                                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10039 | R | No sound can be heard in all cars                                                                                                                              |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10040 | A | Pulse the switch 54S1 to the right to deactivate PA announcement                                                                                               |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10041 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | 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 |   | Tebogo Mtombeni - 529938 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 1.0                                                                                                     |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 1.0                                                                                                     |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10045 | R | Green lamp 54H2 is ON                                                                                                                                          |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10046 | R | PA announcement is activated                                                                                                                                   |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10047 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                             |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                                                                                                     |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                                                                                                     |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                         |  |    |   |                          |       |
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| 10050 | R | Green lamp 54H2 is OFF                                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10051 | I | PA announcement is de-activated                                                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10052 | A | Press the button 54S4 and hold it while talking on the microphone                       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10053 | R | Sound cannot be heard in all speakers                                                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10054 | A | Release the button 54S4                                                                 |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10055 | A | Remove active cab on TC1                                                                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10056 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10057 | R | Green lamp 54H2 is OFF                                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10058 | R | No PA announcement activation showing on the Driver's screen                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10059 | I | Cab to Cab Communication TC1                                                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10060 | I | It is not necessary to have an active cab in order to initiate cab to cab communication |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10062 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10063 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10064 | R | Green lamp 54H1 is blinking                                                             |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10065 | R | A beep can be heard in TC2 cab                                                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10066 | R | Green lamp 54H1 is blinking in TC2 cab                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10067 | R | Cab to Cab communication is Active on DDU driver's screen                               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10068 | A | Accept Cab to cab communication request in TC2 by pulsing switch 54S1 to the left       |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                                                |                                                                                   |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10069 | R | Green lamp 54H1 is ON (steady) on TC2                                                                                                                          |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10070 | A | Press and hold button 54S4 to initiate communication in TC1 and talk on the microphone                                                                         |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10071 | R | Sound can be heard on TC2 cab speakers                                                                                                                         |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10072 | A | Press and hold button 54S4 in TC2 and talk on the microphone                                                                                                   |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10073 | R | Sound can be heard on TC1 cab speakers                                                                                                                         |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10074 | A | Pulse the switch 54S1 to the left on TC1 to de-activate cab to cab communication                                                                               |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10075 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | 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 |   | Tebogo Mtombeni - 529938 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR1 = 1.0                                                                                            |                                                                                   | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 1.0                                                                                            |                                                                                   | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10079 | R | Cab-Cab is activated                                                                                                                                           |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10080 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                            |                                                                                   | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                            |                                                                                   | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10083 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10084 | I | Cab to Cab Communication TC2                                                                                                                                   |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10085 | R | Read Defined Variable [TT]                                                                                                                                     |                                                                                   | OK | 0 | Tebogo Mtombeni - 529938 | Train |

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|       |   | (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                                                          |                                                                                     |    |   |                          |       |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                            |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10087 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10088 | R | Green lamp 54H1 is blinking                                                                                                                                    |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10089 | R | A beep can be heard in TC1 cab                                                                                                                                 |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10090 | R | Green lamp 54H1 is blinking in TC1 cab                                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10091 | R | Cab to Cab communication is Active on DDU driver's screen                                                                                                      |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10092 | A | Accept Cab to cab communication request in TC1 by pulsing switch 54S1 to the left                                                                              |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10093 | R | Green lamp 54H1 is ON (steady) on TC1                                                                                                                          |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10094 | A | Press and hold button 54S4 to initiate communication in TC2 and talk on the microphone                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10095 | R | Sound can be heard on TC1 cab speakers                                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10096 | A | Press and hold button 54S4 in TC1 and talk on the microphone                                                                                                   |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10097 | R | Sound can be heard on TC2 cab speakers                                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10098 | A | Pulse the switch 54S1 to the left on TC2 to de-activate cab to cab communication                                                                               |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10099 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | 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 |   | Tebogo Mtombeni - 529938 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 1.0                                                                                            |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10102 | R | Read Defined Variable [TT]                                                                                                                                     |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |

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|       |   | (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 1.0                                                  |                                                                                     |    |   |                          |       |
| 10103 | R | Cab-Cab is activated                                                                   |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10104 | A | On the driver's screen select the "Public Address" virtual button to end communication |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                    |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                    |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10107 | R | Cab-Cab is de-activated                                                                |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10108 | I | Ventilation Rack TC1                                                                   |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10109 | A | Follow the instruction below o how to test the ventilation rack                        |    | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10110 | R | All three fans of the ventilation rack are working                                     |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10111 | I | PEA Functional Test                                                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10112 | I | All PEAs are normalized on Train                                                       |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10113 | I | All doors should be closed                                                             |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10114 | I | Lamp 44H1 is OFF                                                                       |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10115 | I | PEI auto test passed in all cars, only one green led can be seen in all PEIs           |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10116 | A | Active cab on TC1 and login as driver: 70787878                                        |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10117 | I | All Cameras should be working and properly adjusted                                    |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10118 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC1                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10119 | A | Pull the PEA                                                                           |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10120 | R | Lamp 44H1 is ON                                                                        |  | OK |   | Tebogo Mtombeni - 529938 | Train |

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| 10121 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoo = 1.0                           |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10122 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                        |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10123 | R | A Beed can be heard in TC1 cab                                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10124 | R | Button lamp 54S3 is BLINKING                                                      |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10125 | R | An emergency alarm announcement can be heard in all saloon speakers               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10126 | R | Displays INT1 and INT2 indicate "Passenger Alarm" in all saloon cars              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10127 | R | Lateral displays LAT1 and LAT2 indicate "Passenger Alarm" on the affected car     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10128 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10129 | A | Press the button 54S3 to acknowledge PEA communication request                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10130 | A | Press and hold button 54S4 on TC1 and talk on the microphone                      |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10131 | R | Message stops broadcasting in all saloon speakers                                 |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10132 | R | The person in the cabin can be heard from the PEI speaker                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10133 | A | Respond by talking back via the PEI                                               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10134 | R | Communication is established between PEI and Driver cab                           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10135 | A | Press the button 54S3 to end PEA communication                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10136 | A | Reset PEA using switch 44S6                                                       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10137 | R | PEA is reset and a click sound can be heard while PEA returns to its normal state |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10138 | A | Open and close doors using buttons on driver desk                                 |  | OK |   | Tebogo Mtombeni - 529938 | Train |

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| 10139 | R | All doors are closed and in blue colour on DDU                                                                                                                  |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10140 | R | Lamp 44H1 is OFF                                                                                                                                                |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoo = 0.0                                                                                                         |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10142 | R | No CCTV footage showing on Driver's screen                                                                                                                      |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10143 | R | Button lamp 54S3 is OFF                                                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10144 | R | No message on Pacis displays                                                                                                                                    |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10145 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC1                                                                                                                  |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                                                                                                 |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10147 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                                 |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10148 | A | Pull the PEA                                                                                                                                                    |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10149 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                                                                                                      |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10150 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10151 | A | On the driver's screen (image attached) select the "Passenger Alarm" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 1.0                                                                                                 |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 1.0                                                                                                 |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10154 | A | Press and hold button 54S4 on TC1 and talk on the microphone                                                                                                    |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |

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| 10155 | R | The person in the cabin can be heard from the PEI speaker                               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10156 | A | Respond by talking back via the PEI                                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10157 | R | Communication is stabile between PEI and Driver cab                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10158 | A | On the driver's screen select the "Passenger Alarm" virtual button to end communication |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                         |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                         |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10161 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC1                                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10162 | A | Pull the PEA                                                                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10163 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10164 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen                 |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10165 | A | Press the button 54S3 to acknowledge PEA communication request                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10166 | A | Press and hold button 54S4 on TC1 and talk on the microphone                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10167 | R | The person in the cabin can be heard from the PEI speaker                               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10168 | A | Respond by talking back via the PEI                                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10169 | R | Communication is established between PEI and Driver cab                                 |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10170 | A | Press the button 54S3 to end PEA communication                                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10171 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC1                                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |

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| 10172 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10173 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10174 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10175 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10176 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10177 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10178 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10179 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10180 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10181 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC1                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10182 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10183 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10184 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10185 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10186 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10187 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10188 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10189 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |

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| 10190 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10191 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC1                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10192 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10193 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10194 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10196 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10197 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10198 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10199 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10200 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10201 | I | Call for Aid (CFA 54S5) on TC1                                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10202 | A | Press the SOS button 54S5                                               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10203 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10204 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10205 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10206 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC1           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10207 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |

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| 10208 | A | Press the button 54S3 to acknowledge SOS communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10209 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10210 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10211 | A | Respond by talking back via the PEI near 54S5                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10212 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10213 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10214 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M4                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10215 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10216 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10217 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10218 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10219 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10220 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10221 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10222 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10223 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10224 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M4                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10225 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10226 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10227 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10228 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10229 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10230 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10231 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10232 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10233 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10234 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M4                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10235 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10236 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10237 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10238 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10239 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10240 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10241 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10242 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10243 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10244 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M4                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10245 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10246 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10247 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10248 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10249 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10250 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10251 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10252 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10253 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10254 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M4                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10255 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10256 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10257 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10258 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10259 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10260 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10261 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10262 | R | Communication is established between PEI and Driver cab                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10263 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10264 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M4                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10265 | A | Pull the PEA                                                           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10266 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10267 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10268 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10269 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10270 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10271 | A | Respond by talking back via the PEI                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10272 | R | Communication is established between PEI and Driver cab                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10273 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10274 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 1.0          |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10275 | A | Reset PEA using switch 44S6                                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 0.0          |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10277 | R | All M4 PEAs are reset                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10278 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M1                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10279 | A | Pull the PEA                                                           |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10280 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10281 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10282 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10283 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10284 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10285 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10286 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10287 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10288 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M1                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10289 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10290 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10291 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10292 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10293 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10294 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10295 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10296 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10297 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10298 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M1                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10299 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10300 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10301 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10302 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10303 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10304 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10305 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10306 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10307 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10308 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M1                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10309 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10310 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10311 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10312 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10313 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10314 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10315 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10316 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10317 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10318 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M1                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10319 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10320 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10321 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10322 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10323 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10324 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10325 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10326 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10327 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10328 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M1                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10329 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10330 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10331 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10332 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10333 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10334 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10335 | A | Respond by talking back via the PEI                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10336 | R | Communication is established between PEI and Driver cab                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10337 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10338 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M1StateResetPea = 1.0          |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10339 | A | Reset PEA using switch 44S6                                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M1StateResetPea = 0.0          |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10341 | R | All M1 PEAs are reset                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10342 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M2                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10343 | A | Pull the PEA                                                           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10344 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10345 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10346 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10347 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10348 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10349 | A | Respond by talking back via the PEI                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10350 | R | Communication is established between PEI and Driver cab                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10351 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10352 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10353 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10354 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10355 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10356 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10357 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10358 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10359 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10360 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10361 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10362 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10363 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10364 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10365 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10366 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10367 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10368 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10369 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10370 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10371 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10372 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10373 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10374 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10375 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10376 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10377 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10378 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10379 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10380 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10381 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10382 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10383 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10384 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10385 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10386 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10387 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10388 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10389 | A | Respond by talking back via the PEI                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10390 | R | Communication is established between PEI and Driver cab                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10391 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10392 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M2                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10393 | A | Pull the PEA                                                           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10394 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10395 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10396 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10397 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10398 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10399 | A | Respond by talking back via the PEI                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10400 | R | Communication is established between PEI and Driver cab                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10401 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10402 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 1.0          |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10403 | A | Reset PEA using switch 44S6                                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10404 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 0.0          |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10405 | R | All M2 PEAs are reset                                                  |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10406 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M3                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10407 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10408 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10409 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10410 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10411 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10412 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10413 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10414 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10415 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10416 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M3                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10417 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10418 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10419 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10420 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10421 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10422 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10423 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10424 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10425 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10426 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M3                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10427 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10428 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10429 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10430 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10431 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10432 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10433 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10434 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10435 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10436 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M3                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10437 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10438 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10439 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10441 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                        |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10442 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10443 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10444 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10445 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10446 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M3                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10447 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10448 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10449 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10450 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10451 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10452 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10453 | A | Respond by talking back via the PEI                                    |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10454 | R | Communication is established between PEI and Driver cab                |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10455 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10456 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M3                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10457 | A | Pull the PEA                                                           |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10458 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10459 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                         |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10460 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10461 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10462 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10463 | A | Respond by talking back via the PEI                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10464 | R | Communication is established between PEI and Driver cab                 |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10465 | A | Press the button 54S3 to end PEA communication                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10466 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M3StateResetPea = 1.0        |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10467 | A | Reset PEA using switch 44S6                                             |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10468 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M3StateResetPea = 0.0        |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10469 | R | All M3 PEAs are reset                                                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10470 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC2                          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10471 | A | Pull the PEA                                                            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10472 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10473 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10474 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10475 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10476 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10477 | A | Respond by talking back via the PEI                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10478 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10479 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10480 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10481 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10482 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10483 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10484 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10485 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10486 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10487 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10488 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10489 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10490 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10491 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10492 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10493 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10494 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10495 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10496 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10497 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10498 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10499 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10500 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10501 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10502 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10503 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10504 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10505 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10506 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10507 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10508 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10509 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10510 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10511 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10512 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10513 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                         |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10514 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10515 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10516 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10517 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10518 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10519 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10520 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC2                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10521 | A | Pull the PEA                                                            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10522 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10523 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10524 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10525 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10526 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10527 | A | Respond by talking back via the PEI                                     |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10528 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10529 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10530 | I | Call for Aid (CFA 54S5) on TC2                                          |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10531 | A | Press the SOS button 54S5                                               |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10532 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                             |  |    |   |                          |       |
|-------|---|-----------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10533 | R | No sound can be heard in all saloon speakers                                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10534 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10535 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC2               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10536 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10537 | A | Press the button 54S3 to acknowledge SOS communication request              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10538 | A | Press and hold button 54S4 on TC1 and talk on the microphone                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10539 | R | The person in the cabin can be heard from the PEI speaker                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10540 | A | Respond by talking back via the PEI near 54S5                               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10541 | R | Communication is established between PEI and Driver cab                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10542 | A | Press the button 54S3 to end PEA communication                              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10543 | A | Open and close doors left and right doors                                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10544 | R | All doors are closed and in blue colour on DDU                              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10545 | I | PEAs functional Test from TC2 cab                                           |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10546 | I | This is a quick test to verify that all PEAs work and can be reset from TC2 |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10547 | A | Insert Driver's Key and turn to ON position                                 |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10548 | A | Login as Driver using the code 70787878                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10549 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0        |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10550 | R |                                                                             |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                             |                                                                                     |    |   |                          |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10551 | A | Pull all the PEAs on Train                                                                                                                  |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10552 | R |                                                                                                                                             |    | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10553 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 1.0                                                                        |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10554 | R |                                                                                                                                             |    | OK |   | Tebogo Mtombeni - 529938 | 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 |   | Tebogo Mtombeni - 529938 | Train |
| 10556 | R | Lamp 44H1 is ON                                                                                                                             |    | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10557 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc2pealoop = 1.0                                                                                 |                                                                                     | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10558 | A | Press and hold the button 54S4 while talking on the microphone                                                                              |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10559 | R | The person in the cabin can be heard from the PEI speaker                                                                                   |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10560 | I | It is not necessary to perform step below for all PEAs, one PEA is sufficient                                                               |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10561 | A | Respond by talking back via the PEI                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10562 | R | Communication is established between PEI and Driver cab                                                                                     |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10563 | A | Reset all PEAs at using switch 44S6                                                                                                         |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10564 | R | All PEAs are reset, and a click sound can be heard while PEA returns to its normal state                                                    |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10565 | A | Open and close doors left and right doors                                                                                                   |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10566 | R | All doors are closed and in blue colour on DDU                                                                                              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10567 | R | Lamp 44H1 is OFF                                                                                                                            |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10568 | R | No message on Pacis displays                                                                                                                |                                                                                     | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10569 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc2pealoop = 0.0                                                                                 |                                                                                     | OK | 0 | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                    |                                                                                   |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10570 | R | No CCTV footage showing on Driver's screen                                         |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10571 | A | On the Event screen, check that there are no IOS related to doors or PEAs recorded |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10572 | R | After test is completed, the DDU PEA screen should be as shown                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10573 | A | Repeat this test for 4 times                                                       |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10574 | R | 1st attempt passed                                                                 |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10575 | R | 2nd attempt passed                                                                 |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10576 | R | 3rd attempt passed                                                                 |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10577 | R | 4th attempt passed                                                                 |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10578 | I | Public Announcements TC2                                                           |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10579 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                      |                                                                                   | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10580 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                      |                                                                                   | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10581 | A | Pulse the switch 54S1 to the right to activate PA announcement                     |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10582 | R | Green lamp 54H2 is ON                                                              |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10583 | R | A beep sound can be heard in all saloon speakers                                   |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10584 | R | On Driver's screen (Home Page), PA activation message is displayed                 |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10585 | A | Press the button 54S4 and hold it while talking via the microphone                 |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10586 | R | Announcement can be heard in saloon speakers of all cars                           |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10587 | A | Release the button 54S4                                                            |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10588 | A | Talk on the microphone                                                             |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10589 | R | No sound can be heard in all cars                                                  |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                                             |                                                                                   |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10590 | A | Pulse the switch 54S1 to the right to de-activate PA announcement                                                                                           |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10591 | A | Green lamp 54H2 is OFF                                                                                                                                      |  | OK |   | Tebogo Mtombeni - 529938 | 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 |   | Tebogo Mtombeni - 529938 | Train |
| 10593 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 1.0                                                                                                  |                                                                                   | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10594 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 1.0                                                                                                  |                                                                                   | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10595 | R | Green lamp 54H2 is ON                                                                                                                                       |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10596 | R | PA announcement is activated                                                                                                                                |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10597 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                          |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10598 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                                                                                                  |                                                                                   | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10599 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                                                                                                  |                                                                                   | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10600 | R | Green lamp 54H2 is OFF                                                                                                                                      |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10601 | I | PA announcement is de-activated                                                                                                                             |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10602 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                           |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10603 | R | Sound cannot be heard in all speakers                                                                                                                       |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10604 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10605 | A | Remove active cab on TC1                                                                                                                                    |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10606 | A | Pulse the switch 54S1 to the right to activate PA announcement                                                                                              |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10607 | R | Green lamp 54H2 is OFF                                                                                                                                      |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10608 | R | No PA announcement activation showing on the Driver's screen                                                                                                |                                                                                   | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                                  |                                                                                   |    |  |                          |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10609 | I | Ventilation Rack TC2                                                                                                                             |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10610 | A | Follow the instruction below o how to test the ventilation rack                                                                                  |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10611 | R | All three fans of the ventilation rack are working                                                                                               |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10612 | I | Pacis audio and displays test                                                                                                                    |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | 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 |  | Tebogo Mtombeni - 529938 | Train |
| 10614 | A | Launch the Pacis Test from the DDU                                                                                                               |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10615 | R | All saloon speakers and displays are working on train                                                                                            |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10616 | A | Stop the Pacis test                                                                                                                              |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10617 | I | End of Test                                                                                                                                      |                                                                                   | OK |  | Tebogo Mtombeni - 529938 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 30 – Dynamic Pre-Test

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### 30.3 Instructions list

### 30.3.1 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            |              | Amanda Ntuli - 526239 | Train   |
| 10002 | I    | Train Normalisation                                                                                                                       |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10003 | A    | Whilst checking the LV cubicles in each Car, also check the dataplug ground cables if they are secured and tightened                      |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10004 | I    | TC1                                                                                                                                       |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10005 | R    | ALL LV1.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10006 | R    | ALL LV2.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10007 | R    | ALL LV7 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10008 | R    | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                                 |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10009 | R    | ALL underframe connectors are connected and tightly secured with screws                                                                   |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10010 | R    | ALL inter-car connectors are connected and tightly secured with screws                                                                    |      | OK            |              | Amanda Ntuli - 526239 | 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            |              | Amanda Ntuli - 526239 | Train   |
| 10012 | R    | The values of the HVAC sensor grades are the same                                                                                         |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10013 | I    | M4                                                                                                                                        |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10014 | R    | ALL LV3 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10015 | R    | ALL LV6 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Amanda Ntuli - 526239 | Train   |

|       |   |                                                                                                                                         |  |    |  |                       |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10016 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10017 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10018 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10020 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10021 | I | M1                                                                                                                                      |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10022 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10023 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10024 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10025 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10026 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10028 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10029 | I | M2                                                                                                                                      |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10030 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10031 | R | ALL LV4 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                         |  |    |  |                       |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10032 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10033 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10034 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10036 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10037 | I | M3                                                                                                                                      |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10038 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10039 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10040 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10041 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10042 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10044 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10045 | I | TC2                                                                                                                                     |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10046 | R | ALL LV1.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10047 | R | ALL LV2.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                           |  |    |  |                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10048 | R | ALL LV7 connectors are connected and tightly secured with screws                                                                          |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10049 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                                 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10050 | R | ALL underframe connectors are connected and tightly secured with screws                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10051 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                    |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10053 | R | The values of the HVAC sensor grades are the same                                                                                         |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10054 | I | Brake Test                                                                                                                                |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10055 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10056 | A | On the DDU test screen, run the BRAKE TEST by following the instructions on the screen                                                    |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10057 | R | After the BRAKE TEST is complete, all cars have passed                                                                                    |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10058 | A | Shut down the train by putting the battery contactor 18S1 in OFF position                                                                 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10059 | I | Reduced Power Test                                                                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10060 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10061 | A | Set the Driving Mode Switch (30S1) to "DEPOT" position.                                                                                   |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10063 | A | Select a running direction (Forward or Reverse).                                                                                          |  | OK |  | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                  |  |    |  |                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10064 | I | REMEMBER TO PRESS THE DEAD MAN BUTTON OCCASIONALLY                                                                               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10065 | R | Check that all the conditions on the screen are satisfied (green box to the right of each condition)                             |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10066 | A | Select RPT for M4 car                                                                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10067 | R | RPT for M4 test successful                                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10068 | A | Close the HSCB                                                                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10069 | A | Select RPT for M1car                                                                                                             |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10070 | R | RPT for M1 test successful                                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10071 | A | Close the HSCB                                                                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10072 | A | Select RPT for M2 car                                                                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10073 | R | RPT for M2 test successful                                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10074 | A | Close the HSCB                                                                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10075 | A | Select RPT for M3 car                                                                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10076 | R | RPT for M3 test successful                                                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10077 | A | Close the HSCB                                                                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10078 | I | Traction Test                                                                                                                    |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10079 | A | WARNING: Do not perform TRACTION TEST when the Reduced Power Test has failed.                                                    |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10080 | A | Prepare the train in high voltage with active cab on TC1                                                                         |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10082 | R | After the Traction Test is complete, there are no traction faults logged on the DDU Event screen                                 |  | OK |  | Amanda Ntuli - 526239 | Train |

|       |   |                                                                     |  |    |          |                       |       |
|-------|---|---------------------------------------------------------------------|--|----|----------|-----------------------|-------|
| 10083 | I | Load requirements                                                   |  | OK |          | Amanda Ntuli - 526239 | Train |
| 10084 | R | Read Undefined Variable [TT]<br>SBK_M1CarWeight                     |  | OK | 37333.2  | Amanda Ntuli - 526239 | Train |
| 10085 | R | Read Undefined Variable [TT]<br>SBK_M2CarWeight                     |  | OK | 36623.65 | Amanda Ntuli - 526239 | Train |
| 10086 | R | Read Undefined Variable [TT]<br>SBK_M3CarWeight                     |  | OK | 36314.59 | Amanda Ntuli - 526239 | Train |
| 10087 | R | Read Undefined Variable [TT]<br>SBK_M4CarWeight                     |  | OK | 35991.92 | Amanda Ntuli - 526239 | Train |
| 10088 | R | Read Undefined Variable [TT]<br>SBK_Tc1CarWeight                    |  | OK | 35345.8  | Amanda Ntuli - 526239 | Train |
| 10089 | R | Read Undefined Variable [TT]<br>SBK_Tc2CarWeight                    |  | OK | 35312.31 | Amanda Ntuli - 526239 | Train |
| 10090 | A | Calculate the sum of all cars                                       |  | OK |          | Amanda Ntuli - 526239 | Train |
| 10091 | R | The sum of the weight for all cars<br>Result Max : x <= 223740 (kg) |  | OK | 216921.4 | Amanda Ntuli - 526239 | Train |
| 10092 | I | End of Test                                                         |  | OK |          | Amanda Ntuli - 526239 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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| Serial Tests Report<br>TS217 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006339<br>Version: A0 | Emission date<br>18/04/2024 |
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## Section 29 – Report summaries

### 29.2 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         |            |               |
| HVAC Air Conditioning                   | 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 |  |  |

## 29.3 Tools used

| Function | Tool name              | Tool number          | Next Calibration date |
|----------|------------------------|----------------------|-----------------------|
| 019_AIR  | Manometer              | Manometer            | 7/31/2024             |
| 025_NET  | Cable Analyser DSX5000 | Fluke machine_Ubunye | 6/23/2024             |
| 040_SBK  | Manometer              | Manometer            | 7/31/2024             |
| 040_SUP  | Manometer              | Manometer            | 7/31/2024             |
| 044_UBK  | Manometer              | Manometer            | 7/31/2024             |
| 045_PBK  | Manometer              | Manometer            | 7/31/2024             |
| 050_DOR  | Pressure Meter         | Pressure Meter 1     | 8/25/2024             |
| 072_SGL  | Manometer              | Manometer            | 7/31/2024             |

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