|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *TEST CASE DESCRIPTION* | | | | | | | | | |
|  | | Code | | Version | | | Title | | |
| Test Case | | 3.19.3 | | 2 | | | Management of the overlapping TSRs information in RBC/RBC handover area. | | |
|
| Baseline applicable | | Baseline 3 | | | | | | | |
| Test case author | | ADIF | | | | | | | |
| Test Objective(s) | | Verify that the EVC manages the overlapping TSRs running from one RBC area to another one. The supervision of the permitted speed is performed correctly. | | | | | | | |
| Diagram | |  | | | | | | | |
| Starting conditions | | Level | | | | 2 | | | |
| Mode | | | | FS | | | |
| Train Speed (km/h) | | | | NR | | | |
| Additional starting conditions | | | | The train is running in a handover area where two TSR are overlapped at the border location.  One TSR includes the area of overlapping TSR while the other (the most restrictive) is in the Accepting RBC area.  A movement authority which reaches the RBC/RBC Handover border is stored on board. | | | |
| Sequence of the Test Case | | Checkpoints | | | | | | | |
| Step | Step description | Interfaces | Description of what to be tested at the interface | | | | | | OK? |
| 1 | The RBC1 sends a message with two overlapping TSRs and announcement to perform a handover to RBC2. The permitted speed of the TSR2 is lower than the permitted speed of the TSR1. The distance to the beginning of TSR2 is further than the distance of the TRS1. | DMI (O) | Vpermitted does not decrease | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | Message 3/24/33 (LRBG1)  Packet 65  NID\_TSR= TSR1  D\_TSR= D1  Q\_FRONT=0  L\_TSR=L1  V\_TSR=V1  Packet 65  NID\_TSR= TSR2  D\_TSR= D2  Q\_FRONT=0  L\_TSR=L2  V\_TSR=V2 V1 > V2 D1 < D2 D2 < D1 + L1  D2+L2 > D1 + L1 Message 3/24/33 (LRBG1)  Packet 131  NID\_RBC (2)  NID\_RADIO (2)  D\_RBCTR=D3 | | | | | |  |
| 2 | The establishment of a communication session with the RBC2 is initiated by the EVC. | DMI (O) |  | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | Message 155 Message 32 Message 159 Message 129 Message 8 | | | | | |  |
| 3(\*) | The train receives from RBC1 an updated MA further than the RBCs border location as a result of the interchange of information between RBC1 and RBC2. | DMI (O) |  | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | Message 3/33 (LRBG2)  Packet 15  L\_ENDSECTION =D4  D4 (LRBG2) > D3 (LRBG1) | | | | | |  |
| 4 | The train starts the braking curve to the TSR1. | DMI (O) | Braking curve V\_target = V1 Vtrain < Vpermitted | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | V\_TRAIN < V\_PERM  SPEED AND DISTANCE MONITORING INFORMATION  V\_TARGET = V1  M\_SDMTYPE=1 | | | | | |  |
| 5 | The train reaches the TSR1 area when the max safe front end has run the distance D1. | DMI (O) | Vpermitted = V1 Vtrain ≤ V1 | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | V\_TRAIN ≤ V1 estimated front end = D1(LRBG1) -L\_DOUBTUNDER  SPEED AND DISTANCE MONITORING INFORMATION  V\_PERM = V1  M\_SDMTYPE=0 | | | | | |  |
| 6 | The train starts the braking curve to the TSR2. | DMI (O) | Braking curve V\_target = V2 Vtrain < Vpermitted | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | V\_TRAIN < V\_PERM SPEED AND DISTANCE MONITORING INFORMATION  V\_TARGET = V2  M\_SDMTYPE=1 | | | | | |  |
| 7 | The train is approaching the border location. The EVC sends to the RBC1 and RBC2 a position report when the max safe front end has passed the border location. | DMI (O) |  | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | estimated front end = D3(LRBG1)-L\_DOUBTUNDER  Message 136  Packet 0 Message 136  Packet 0 | | | | | |  |
| 8 | At the border location the train receives from a balise group an order to switch to RBC2. | DMI (O) |  | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | Packet 131 (LRBG3)  NID\_RBC (2)  NID\_RADIO (2)  D\_RBCTR = 0 | | | | | |  |
| 9 | The EVC sends to the RBC1 a position report when the min safe rear end has passed the border location. | DMI (O) |  | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | estimated front end (LRBG3) = L\_TRAIN + L\_DOUBTOVER  Message 136   Packet 0 | | | | | |  |
| 10 | The RBC1 sends an order to terminate communication session. Communication session is terminated with the RBC1. | DMI (O) |  | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | Message 3/24/33  Packet 42  Q\_RBC=0 Message 156 Message 39 | | | | | |  |
| 11 | The train reaches the TSR2 area when the max safe front end has run the distance D2. | DMI (O) | Vpermitted = V2 | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | V\_TRAIN ≤ V2 estimated front end = D2(LRBG1)-L\_DOUBTUNDER  SPEED AND DISTANCE MONITORING INFORMATION  V\_PERM = V2  M\_SDMTYPE=0 | | | | | |  |
| 12 | The supervision of the TSR2 finishes when the min safe rear has reached the end of the TSR area. | DMI (O) | Vpermitted is updated | | | | | |  |
| DMI (I) |  | | | | | |  |
| JRU | V\_PERM = V\_STATIC estimated front end = D2(LRBG1) + L2 + L\_TRAIN + L\_DOUBTOVER | | | | | |  |
| Final state | | Level | 2 | | | |  |  |  |
| Mode | FS | | | |  |  |  |
| Train Speed (km/h) | NR | | | |  |  |  |
| Other parameters |  | | | |  |  |  |
| Final Test Result | |  | |  |  | |  |  |  |
| Field of Application | | Spain | | | | | | | |
| Briefing instructions | | There is not a sudden drop in the permitted speed when the TSR information is received.  (\*) At this step or after this step the RBC could sends an updated TSR information (in case the TSR information sent at step 1 only goes up to the RBC/RBC Handover border). | | | | | | | |