|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *TEST CASE DESCRIPTION* | | | | | | |
|  | | Code | Version | Title | | |
| Test Case | | 1.1.2 | 2 | Speed supervision. Overlapping TSR supervision. | | |
|
| Baseline applicable | | Baseline 3 | | | | |
| Test case author | | ADIF | | | | |
| Test Objective(s) | | Verify that the EVC manages the overlap of two TSRs and speed supervision correctly. | | | | |
| Diagram | |  | | | | |
| Starting conditions | | Level | | | 1 | |
| Mode | | | FS | |
| Train Speed (km/h) | | | NR | |
| Additional starting conditions | | | The established route includes two overlapped TSR areas. | |
| Sequence of the Test Case | | Checkpoints | | | | |
| Step | Step description | Interfaces | Description of what to be tested at the interface | | | OK? |
| 1 \* | Two overlapping TSRs are received by balise. The speed of the TSR1 is lower than the speed of the TSR2. The distance to the beginning of TSR1 is further than the distance to the TRS2. | DMI (O) |  | | |  |
| DMI (I) |  | | |  |
| JRU | (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 D1 < D2 + L2 | | |  |
| 2 | The train starts the braking curve to the TSR2. | DMI (O) | Braking curve with Vtarget = V2 Vtrain < Vpermitted | | |  |
| DMI (I) |  | | |  |
| JRU | V\_TRAIN < V\_PERM SPEED AND DISTANCE MONITORING INFORMATION  M\_SDMTYPE=1  V\_TARGET= V2   D\_TARGET = D2 - D\_LRBG1 - L\_DOUBTUNDER | | |  |
| 3 | The train reaches the TSR2 area when the max safe front end has run the distance D2 | DMI (O) | Vpermitted = V2 Vtrain ≤ 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 | | |  |
| 4 | The train is running in the TSR2 area when the braking curve to the TSR1 has started. | DMI (O) | Braking curve with Vtarget = V1 Vtrain < Vpermitted | | |  |
| DMI (I) |  | | |  |
| JRU | V\_TRAIN < V\_PERM SPEED AND DISTANCE MONITORING INFORMATION  M\_SDMTYPE=1  V\_TARGET= V1  D\_TARGET = D1 - D\_LRBG1 - L\_DOUBTUNDER | | |  |
| 5 | The train reaches with the max safe front end the overlapping TSR area. The supervised speed is V1. | 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 overtakes the defined speed by the TSR1 until the service brake intervention. | DMI (O) | Service Brake symbol  V\_TRAIN > V1 | | |  |
| DMI (I) |  | | |  |
| JRU | V\_TRAIN > V1  SERVICE BRAKE COMMAND STATE = COMMANDED  SPEED AND DISTANCE MONITORING INFORMATION  M\_SDMSUPSTAT=4  DMI\_SYMB\_STATUS  ST01 | | |  |
| 7 | The service brake is revoked when the train speed is under permitted speed. | DMI (O) | Service Brake symbol disappear  V\_TRAIN ≤ V1 | | |  |
| DMI (I) |  | | |  |
| JRU | V\_TRAIN ≤ V1  SERVICE BRAKE COMMAND STATE = NOT COMMANDED  SPEED AND DISTANCE MONITORING INFORMATION  M\_SDMSUPSTAT=0 | | |  |
| 8 | The train min safe rear end has reached the end of the TSR 1 area | DMI (O) | Vpermitted = V2  V\_TRAIN ≤ V2 | | |  |
| DMI (I) |  | | |  |
| JRU | V\_PERM = V2  V\_TRAIN ≤ V2  estimated front end = D1(LRBG1) + L1 + L\_TRAIN + L\_DOUBTOVER | | |  |
| 9 | The train min safe rear end has reached the end of the TSR 2 area | DMI (O) | Vpermitted ≠ V2 | | |  |
| DMI (I) |  | | |  |
| JRU | V\_PERM ≠ V2  estimated front end = D2(LRBG1) + L2 + L\_TRAIN + L\_DOUBTOVER | | |  |
| Final state | | Level | 1 | | |  |
| Mode | FS | | |  |
| Train Speed (km/h) | NR | | |  |
| Other parameters |  | | |  |
| Final Test Result | |  | | | | |
| Field of Application | | Spain | | | | |
| Briefing instructions | | There are not abrupt speed decreases related to TSRs.  \* The two Packet 65 can be received in different balises  \*\* The Service Brake intervention is only tested in one of the TSRs areas. If the emergency brake is the first line of system intervention, emergency brake will be applied. | | | | |