




ERJU SYSTEM PILLAR

# PRAMS Log - Part 3 System Hazards



# PRAMS Log - Part 3 System Hazards

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Abstract	This document reports the list of System Hazards defined as part of the ERJU Hazards Database to be used for risk assessment by ERJU SP Domains in accordance with EURJ PRAMS Plan and guidelines.
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## 1 Introduction



### 1.1 Purpose

#### Purpose


The ERJU Hazard Database System Hazards list covers the need of having a common set of system hazards that shall be used by all SP Domains to perform their safety analyses. [SPRM-2206,  Text ]

### 1.2 Intended audience


#### Scope and intended audience

This document is an appendix to  PRAMS Log - Main ERJU Hazard Database and reports the list of system Hazards (i.e. the hazards emerging from a failure of the system) defined as part of the ERJU Hazards Database to be used by ERJU SP Domains in accordance with ERJU PRAMS Plan and guidelines. [SPRM-2204,  Text ]

#### Disclaimer

The list is not exhaustive and is aligned with current status of the ERJU Hazard Database. It will be updated during the project lifecycle. [SPRM-2205,  Text ]

#### Document context

The ERJU Hazard Database represents a centralized, standardized and harmonized hazards database combining all railway accidents categories, top-level hazards and refined ones and is a key part of the general safety methodology proposed by the PRAMS team to be applied within the SP domains and for future projects. [SPRM-2308,  Text ]

### 1.3 Glossary

#### 1.3.1 Terms



No references

#### Terms

Refer to Terms section in  PRAMS Log - Main Hazard Database. [SPRM-2213,  Text ]

#### 1.3.2 Abbreviations

#### Abbreviations

Refer to Abbreviations section in  PRAMS Log - Main Hazard Database. [SPRM-2208,  Text ]

### 1.4 List of References

#### List of References








Refer to List of references section in  PRAMS Log - Main Hazard Database. [SPRM-2209,  Text ]

## 2 General System Hazards

### [B.2] Technical Failure of the rolling stock











A technical failure of the rolling stocks falling within the B.2 sub-categories.

ID	SPRM-266
----	----------

old ID	CSM-ALSP B.2;
Status	✅ Done / To be decided
Linked Work Items	is copied from :   SPPRAMSS-6928 - [B.2] Technical Failure of the rolling stock : 459260 has parent :  SPRM-265 - General System Hazards _ is parent of :  SPRM-267 - [B.2.1] Failure of the wheelset _ is parent of :  SPRM-274 - [B.2.2] Failure of the braking system _ is parent of :  SPRM-277 - [B.2.0] Other failures of the rolling stock
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

### [B.2.1] Failure of the wheelset







A failure of the wheelset falling within the B.2.1 sub-categories

ID	SPRM-267
old ID	CSM-ALSP B.2.1; RSSB CHAMOIS 11.06.06; MODSAFE 1.1.1.1.1.3.1.2
Status	➡ Open
Linked Work Items	is copied from :   SPPRAMSS-6929 - [B.2.1] Failure of the wheelset : 488748 has parent :  SPRM-266 - [B.2] Technical Failure of the rolling stock _ is parent of :  SPRM-268 - [B.2.1.1] Broken wheel on rolling stock _ is parent of :  SPRM-269 - [B.2.1.2] Broken axle on rolling stock _ is parent of :  SPRM-270 - [B.2.1.3] Hot axle box and/or hot wheel _ is parent of :  SPRM-271 - [B.2.1.4] Failure of the bogie _ is parent of :  SPRM-272 - [B.2.1.5] Suspension system failure _ is parent of :  SPRM-273 - [B.2.1.0] Other failure of the wheelset
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

**[B.2.1.1] Broken wheel on rolling stock**

A crack/defect affecting the wheel and exceeding the applicable limits







Note: this category excludes broken wheels resulting from hot wheels

ID	SPRM-268
old ID	CSM-ALSP B.2.1.1; RSSB CHAMOIS 3.06.05, 3.06.06;
Status	✓ Done / To be decided
Linked Work Items	<p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6930 - [B.2.1.1] Broken wheel on rolling stock : 477564</p> <p>has parent :  SPRM-267 - [B.2.1] Failure of the wheelset</p>
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

**[B.2.1.2] Broken axle on rolling stock**






A crack/defect affecting the axle and exceeding the applicable limits


Note: this category excludes broken axles resulting from hot axles boxes.

ID	SPRM-269
old ID	CSM-ALSP B.2.1.2; RSSB CHAMOIS 3.06.01;
Status	✓ Done / To be decided
Linked Work Items	<p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6931 - [B.2.1.2] Broken axle on rolling stock : 477564</p> <p>has parent :  SPRM-267 - [B.2.1] Failure of the wheelset</p>
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

**[B.2.1.3] Hot axle box and/or hot wheel**

Any situation in which the axle and/or the wheel temperature goes outside the defined range for normal operations (including when it results in damage to the wheel or axle).








ID	SPRM-270
old ID	CSM-ALSP B.2.1.3; RSSB CHAMOIS 3.06.07;
Status	✓ Done / To be decided
Linked Work Items	<p>relates to :  SPPRAMSS-5778 - [A5.1] Fire (or explosion) in a train</p> <p>relates to :  SPPRAMSS-5779 - [A5.2] Fire (or explosion) involving one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6932 - [B.2.1.3] Hot axle box and/or hot wheel : 481524</p> <p>has parent :  SPRM-267 - [B.2.1] Failure of the wheelset</p>

Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

#### [B.2.1.4] Failure of the bogie








Any situation in which a failure of the bogie is detected

Note: this category excludes failure of the suspension system

ID	SPRM-271
old ID	CSM-ALSP B.2.1.4; RSSB CHAMOIS 3.06.08, 3.06.09;
Status	 Done / To be decided
Linked Work Items	relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6933 - [B.2.1.4] Failure of the bogie : 481524 has parent :  SPRM-267 - [B.2.1] Failure of the wheelset
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard


#### [B.2.1.5] Suspension system failure





Any situation in which a failure of suspension system failure.

ID	SPRM-272
old ID	CSM-ALSP B.2.1.5; RSSB CHAMOIS 3.06.08, 11.06.06;
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6934 - [B.2.1.5] Suspension system failure : 487801 has parent :  SPRM-267 - [B.2.1] Failure of the wheelset
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

#### [B.2.1.0] Other failure of the wheelset




















Any occasion falling within the category 'failure of the wheelset', but not covered by the subcategories above.

ID	SPRM-273
old ID	CSM-ALSP B.2.1.0;
Status	 Content to be approved

Linked Work Items	is copied from :   SPPRAMSS-6935 - [B.2.1.0] Other failure of the wheelset : 487813 has parent :  SPRM-267 - [B.2.1] Failure of the wheelset
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

### [B.2.2] Failure of the braking system








A failure in braking system significantly reducing the braking capacity. A failure of the braking system event falling within the B.2.2 sub-categories

ID	SPRM-274
old ID	CSM-ALSP B.2.2; MODSAFE 1.1.1.1.1.3.2.1
Status	 Open
Linked Work Items	<p>is copied from :    SPPRAMSS-6936 - [B.2.2] Failure of the braking system : 488750  has parent :  SPRM-266 - [B.2] Technical Failure of the rolling stock  _ is parent of :  SPRM-275 - [B.2.2.0] Other failure of the braking system  _ is parent of :  SPRM-276 - [B.2.2.1] Brake not operating with the planned performance  _ is assessed by :  SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent  _ is assessed by :  SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent  _ is assessed by :  SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent  _ is assessed by :  SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent  _ is assessed by :  SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent  _ is assessed by :  SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received  _ is assessed by :  SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received  _ is assessed by :  SPRM-1666 - Input from Integrator to TCCS Configuration: wrong checked and signed configuration data received  _ is assessed by :  SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received  _ is assessed by :  SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received  _ is assessed by :  SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received  _ is assessed by :  SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI Rolling Stock
Type	 Hazard














### [B.2.2.0] Other failure of the braking system

Any occasion falling within the category 'failure of the braking system', but not covered by the subcategories above

ID	SPRM-275
old ID	CSM-ALSP B.2.2.0;
Status	✓ Done / To be decided
Linked Work Items	<p>relates to :  SPPRAMSS-5778 - [A5.1] Fire (or explosion) in a train</p> <p>relates to :  SPPRAMSS-5779 - [A5.2] Fire (or explosion) involving one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5780 - [A5.0] Others fire (or explosion) in rolling stock</p> <p>is copied from :   SPPRAMSS-6938 - [B.2.2.0] Other failure of the braking system : 487801</p> <p>has parent :  SPRM-274 - [B.2.2] Failure of the braking system</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI Rolling Stock
Type	 Hazard




























### [B.2.2.1] Brake not operating with the planned performance

Any situation in which brake not operating with the planned performance

ID	SPRM-276
old ID	CSM-ALSP B.2.2.1; RSSB CHAMOIS 2.01.01, 2.02.01, 3.01.01, 3.09.01, 3.10.01, 4.02.01, 4.03.01, 4.04.01, 5.05.01, 11.06.01;
Status	✓ Done / To be decided
Linked Work Items	<p>relates to :  SPPRAMSS-5771 - [A3.2] Level Crossing Accident involving one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5770 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles</p> <p>relates to :  SPPRAMSS-5769 - [A3.1.1] Level Crossing Accident involving a train and pedestrians</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>is copied from :   SPPRAMSS-6937 - [B.2.2.1] Brake not operating with the planned performance : 487801</p> <p>has parent :  SPRM-274 - [B.2.2] Failure of the braking system</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI Rolling Stock
Type	 Hazard

**[B.2.0] Other failures of the rolling stock**

Other failure of the rolling stock falling within the B.2.0 sub-categories































ID	SPRM-277
old ID	CSM-ALSP B.2.0;
Status	✓ Done / To be decided
Linked Work Items	<p>is copied from :   SPRAMSS-6939 - [B.2.0] Other failures of the rolling stock : 487813</p> <p>has parent :  SPRM-266 - [B.2] Technical Failure of the rolling stock</p> <p>_ is parent of :  SPRM-278 - [B.2.0.1] Wrong side signalling (on-board) failure</p> <p>_ is parent of :  SPRM-279 - [B.2.0.10] Twisted underframe</p> <p>_ is parent of :  SPRM-280 - [B.2.0.3] Train detection equipment failure (on-board)</p> <p>_ is parent of :  SPRM-281 - [B.2.0.5] Traction motor failure (electrical)</p> <p>_ is parent of :  SPRM-282 - [B.2.0.2] Odometry error</p> <p>_ is parent of :  SPRM-283 - [B.2.0.9] Loss of ventilation</p> <p>_ is parent of :  SPRM-284 - [B.2.0.4] Losing of rolling stock parts</p> <p>_ is parent of :  SPRM-285 - [B.2.0.8] Doors failure</p> <p>_ is parent of :  SPRM-286 - [B.2.0.6] Diesel engine failure</p> <p>_ is parent of :  SPRM-287 - [B.2.0.7] Coupling failure</p> <p>_ is parent of :  SPRM-288 - [B.2.0.0] Other un-coded technical failure of the rolling stock</p> <p>_ is assessed by :  SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1666 - Input from Integrator to TCCS Configuration: wrong checked and signed configuration data received</p> <p>_ is assessed by :  SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received</p> <p>_ is assessed by :  SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received</p> <p>_ is assessed by :  SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received</p> <p>_ is assessed by :  SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

**[B.2.0.1] Wrong side signalling (on-board) failure**

Any technical failure of a signalling system (on-board), resulting in signalling a safety related information less restrictive than that demanded.

ID	SPRM-278
old ID	CSM-ALSP B.2.0.1; RSSB CHAMOIS 11.04.11, 12.01.12;
Status	✓ Done / To be decided

DRAFT

Linked Work Items	<p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5769 - [A3.1.1] Level Crossing Accident involving a train and pedestrians</p> <p>relates to :  SPPRAMSS-5770 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles</p> <p>relates to :  SPPRAMSS-5771 - [A3.2] Level Crossing Accident involving one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6940 - [B.2.0.1] Wrong side signalling (on-board) failure : 459260</p> <p>has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock</p> <p>_ is assessed by :  SPRM-1174 - Incorrect acceleration information from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1175 - Late acceleration information from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1177 - Incorrect geographical coordinates from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1178 - Late geographical coordinates from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1180 - Incorrect position and direction from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1183 - Incorrect train speed from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1184 - Late train speed from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1242 - Early Required relative traction and brake effort to Rolling Stock Operational System</p> <p>_ is assessed by :  SPRM-1243 - Late Required relative traction and brake effort to Rolling Stock Operational System</p> <p>_ is assessed by :  SPRM-1246 - Incorrect Required relative traction and brake effort to Rolling Stock Operational System</p> <p>_ is assessed by :  SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1666 - Input from Integrator to TCCS Configuration: wrong checked and signed configuration data received</p> <p>_ is assessed by :  SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received</p>
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	_ is assessed by : ⚠️ SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received _ is assessed by : ⚠️ SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received _ is assessed by : ⚠️ SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS
Type	⚡ Hazard

#### [B.2.0.10] Twisted underframe

Any situation in which a twisted underframe is involved.














Note: underframe twist would cause the axles to remain persistently angular to the track, thus leading to possible derailment.

ID	SPRM-279
old ID	CSM-ALSP B.2.0.10; RSSB CHAMOIS 3.06.09;
Status	✅ Done / To be decided
Linked Work Items	is copied from : ⚙️ ⚡ SPPRAMSS-6949 - [B.2.0.10] Twisted underframe : 487813 has parent : ⚡ SPRM-277 - [B.2.0] Other failures of the rolling stock
Risk Acceptance Principle	Code of practice / Reference System
Type	⚡ Hazard

#### [B.2.0.3] Train detection equipment failure (on-board)






Any situation in which a failure of a train detection equipment (on-board).

ID	SPRM-280
old ID	CSM-ALSP B.2.0.3; RSSB CHAMOIS 11.04.02, 11.04.10, 17.04.11;
Status	✅ Done / To be decided

Linked Work Items	<p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5769 - [A3.1.1] Level Crossing Accident involving a train and pedestrians</p> <p>relates to :  SPPRAMSS-5770 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles</p> <p>relates to :  SPPRAMSS-5771 - [A3.2] Level Crossing Accident involving one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6942 - [B.2.0.3] Train detection equipment failure (on-board) : 481524</p> <p>has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	SUBSET-091 v4.0.0 (BSL4 R1) is not yet covering this topic.
Type	 Hazard


#### [B.2.0.5] Traction motor failure (electrical)














Any situation in which a failure of traction motor (electrical).

ID	SPRM-281
old ID	CSM-ALSP B.2.0.5;
Status	 Content to be approved
Linked Work Items	<p>is copied from :   SPPRAMSS-6944 - [B.2.0.5] Traction motor failure (electrical) : 478021</p> <p>has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI Rolling Stock (to be confirmed)
Type	 Hazard

#### [B.2.0.2] Odometry error






Any technical failure of the on-board system to estimate changes in train position over time

ID	SPRM-282
old ID	CSM-ALSP B.2.0.2;
Status	 Done / To be decided

Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles relates to :  SPPRAMSS-5769 - [A3.1.1] Level Crossing Accident involving a train and pedestrians relates to :  SPPRAMSS-5770 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles relates to :  SPPRAMSS-5771 - [A3.2] Level Crossing Accident involving one or more rail vehicles is copied from :   SPPRAMSS-6941 - [B.2.0.2] Odometry error : 487801 has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS
Type	 Hazard


#### [B.2.0.9] Loss of ventilation









Any situation involving a technical malfunctioning of the on-board ventilation system. Note: for example, a loss of ventilation in a train compromising fire management plan, potentially leading to victims or damage

ID	SPRM-283
old ID	CSM-ALSP B.2.0.9;
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-6948 - [B.2.0.9] Loss of ventilation : 487813 has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI Safety Railway Tunnel (to be confirmed)
Type	 Hazard

#### [B.2.0.4] Losing of rolling stock parts








Any situation when a rolling stock part detaches and falls on the ground.

ID	SPRM-284
old ID	CSM-ALSP B.2.0.4; RSSB CHAMOIS 10.04.01;
Status	 Content to be approved

Linked Work Items	relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6943 - [B.2.0.4] Losing of rolling stock parts : 459260 has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock
Risk Acceptance Principle	Code of practice / Referenrece System
Type	 Hazard






#### [B.2.0.8] Doors failure

Any situation involving a technical malfunctioning of the doors

ID	SPRM-285
old ID	CSM-ALSP B.2.0.8; RSSB CHAMOIS 14.02.16;
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5774 - [A4.1] Accidents to persons involving a train in motion relates to :  SPPRAMSS-5775 - [A4.2] Accidents to persons involving rail vehicle in motion is copied from :   SPPRAMSS-6947 - [B.2.0.8] Doors failure : 481524 has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

#### [B.2.0.6] Diesel engine failure










Any situation in which a failure of diesel engine occurs.

ID	SPRM-286
old ID	CSM-ALSP B.2.0.6; RSSB CHAMOIS 9.01.09;
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-6945 - [B.2.0.6] Diesel engine failure : 478021 has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock
Risk Acceptance Principle	Code of practice / Referenrece System
Rational	Code of Practice / Reference System for the mechanical part - Explicit Risk Estimation for control system
Type	 Hazard








### [B.2.0.7] Coupling failure

Any situation in which the railway vehicles detach (i.e. uncoupling of coupled vehicles) as a result of a technical failure.

ID	SPRM-287
old ID	CSM-ALSP B.2.0.7; RSSB CHAMOIS 3.06.03, 3.10.02, 4.03.02;
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6946 - [B.2.0.7] Coupling failure : 487801</p> <p>has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock</p>
Risk Acceptance Principle	Code of practice / Reference System
Rational	Code of Practice / Reference System for the mechanical part - Explicit Risk Estimation for control system
Type	 Hazard


### [B.2.0.0] Other un-coded technical failure of the rolling stock








Any occasion falling within the category 'technical failure of the rolling stock', but not covered by any of the sub-categories coded above.

ID	SPRM-288
old ID	CSM-ALSP B.2.0.0;
Status	 Content to be approved
Linked Work Items	<p>is copied from :   SPPRAMSS-6950 - [B.2.0.0] Other un-coded technical failure of the rolling stock : 487813</p> <p>has parent :  SPRM-277 - [B.2.0] Other failures of the rolling stock</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

### [B.3] Technical Failure of the infrastructure












A technical failure of the infrastructure falling within the B.3 sub-categories

ID	SPRM-289
old ID	CSM-ALSP B.3;
Status	 Content to be approved

Linked Work Items	is copied from :   SPPRAMSS-6951 - [B.3] Technical Failure of the infrastructure : 487813 has parent :  SPRM-265 - General System Hazards _ is parent of :  SPRM-290 - [B.3.1] Failure of the track _ is parent of :  SPRM-302 - [B.3.2] Structures failure _ is parent of :  SPRM-312 - [B.3.0] Other failures of the infrastructure
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard








### [B.3.1] Failure of the track

A failure of the track falling within the B.3.1 sub-categories

ID	SPRM-290
old ID	CSM-ALSP B.3.1;
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-6952 - [B.3.1] Failure of the track : 487813 has parent :  SPRM-289 - [B.3] Technical Failure of the infrastructure _ is parent of :  SPRM-291 - [B.3.1.1] Broken rail _ is parent of :  SPRM-292 - [B.3.1.2] Track buckle and other track misalignment _ is parent of :  SPRM-297 - [B.3.1.3] Wrong side signalling (infrastructure) failure _ is parent of :  SPRM-298 - [B.3.1.4] Point and crossing failure _ is parent of :  SPRM-300 - [B.3.1.5] Failure of the level crossing equipment _ is parent of :  SPRM-301 - [B.3.1.0] Other failure of the track
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard












#### [B.3.1.1] Broken rail

Any rail which is separated in two or more pieces, or any rail from which a piece of metal becomes detached, causing a gap of more than 50 mm in length and more than 10 mm in depth on the running surface.

ID	SPRM-291
old ID	CSM-ALSP B.3.1.1; RSSB CHAMOIS 3.07.02, 11.03.02;
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6953 - [B.3.1.1] Broken rail : 481524 has parent :  SPRM-290 - [B.3.1] Failure of the track
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard








### [B.3.1.2] Track buckle and other track misalignment

Any fault related to the continuum and the geometry of track, requiring track to be placed out of service or immediate restriction of permitted speed

ID	SPRM-292
old ID	CSM-ALSP B.3.1.2; RSSB CHAMOIS 3.07.03, 3.07.06, 11.03.04;
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6954 - [B.3.1.2] Track buckle and other track misalignment : 481524</p> <p>has parent :  SPRM-290 - [B.3.1] Failure of the track</p> <p>_ is parent of :  SPRM-293 - [B.3.1.2.2] Track twist</p> <p>_ is parent of :  SPRM-294 - [B.3.1.2.0] Other track buckle and track misalignment</p> <p>_ is parent of :  SPRM-295 - [B.3.1.2.3] Improper rail fastening and joints</p> <p>_ is parent of :  SPRM-296 - [B.3.1.2.1] Gauge spread</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard


### [B.3.1.2.2] Track twist





Any situation which is linked to a track twist (issue due to track geometry defects between the two rails).

ID	SPRM-293
old ID	CSM-ALSP B.3.1.2.2 RSSB CHAMOIS 3.07.09
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6956 - [B.3.1.2.2] Track twist : 487801</p> <p>has parent :  SPRM-292 - [B.3.1.2] Track buckle and other track misalignment</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

### [B.3.1.2.0] Other track buckle and track misalignment








Any situation which is linked to another track buckle and track misalignment.

ID	SPRM-294
old ID	CSM-ALSP B.3.1.2.0
Status	 Content to be approved

Linked Work Items	is copied from :   SPPRAMSS-6958 - [B.3.1.2.0] Other track buckle and track misalignment : 487813 has parent :  SPRM-292 - [B.3.1.2] Track buckle and other track misalignment
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard








### [B.3.1.2.3] Improper rail fastening and joints

Any situation which is linked to an improper rail fastening and joints.

ID	SPRM-295
old ID	CSM-ALSP B.3.1.2.3 RSSB CHAMOIS 11.03.05
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6957 - [B.3.1.2.3] Improper rail fastening and joints : 487801 has parent :  SPRM-292 - [B.3.1.2] Track buckle and other track misalignment
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

### [B.3.1.2.1] Gauge spread


Any situation which is linked to a gauge spread.

ID	SPRM-296
old ID	CSM-ALSP B.3.1.2.1 RSSB CHAMOIS 3.02.05, 3.07.08
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6955 - [B.3.1.2.1] Gauge spread : 459260 has parent :  SPRM-292 - [B.3.1.2] Track buckle and other track misalignment
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard
















### [B.3.1.3] Wrong side signalling (infrastructure) failure


Any technical failure of a signalling system (infrastructure), resulting in signalling safety related information less restrictive than that demanded.

ID	SPRM-297
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old ID	CSM-ALSP B.3.1.3 RSSB CHAMOIS 2.03.05, 3.12.05, 11.04.03, 11.04.04, 11.04.11
Status	 Content to be approved

DRAFT

Linked Work Items	<p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5769 - [A3.1.1] Level Crossing Accident involving a train and pedestrians</p> <p>relates to :  SPPRAMSS-5770 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles</p> <p>relates to :  SPPRAMSS-5771 - [A3.2] Level Crossing Accident involving one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>is copied from :   SPPRAMSS-6959 - [B.3.1.3] Wrong side signalling (infrastructure) failure : 459260</p> <p>has parent :  SPRM-290 - [B.3.1] Failure of the track</p> <p>_ is assessed by :  SPRM-546 - Synchronised current time to Transversal CCS</p> <p>_ is assessed by :  SPRM-547 - Synchronised current time to Transversal CCS</p> <p>_ is assessed by :  SPRM-548 - Synchronised current time to Transversal CCS</p> <p>_ is assessed by :  SPRM-964 - Late confirmation request of usage restriction activation to Signaller</p> <p>_ is assessed by :  SPRM-966 - Early indication of Usage restriction activation state to Signaller</p> <p>_ is assessed by :  SPRM-1075 - Incorrect shorten movement permission request to Train CS</p> <p>_ is assessed by :  SPRM-1083 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1089 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1090 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1134 - Early wheel passing information from Wheel</p> <p>_ is assessed by :  SPRM-1135 - Incorrect wheel passing information from Wheel</p> <p>_ is assessed by :  SPRM-1174 - Incorrect acceleration information from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1175 - Late acceleration information from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1177 - Incorrect geographical coordinates from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1178 - Late geographical coordinates from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1180 - Incorrect position and direction from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1181 - Late position and direction from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1183 - Incorrect train speed from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1184 - Late train speed from Rolling Stock Reference Point</p> <p>_ is assessed by :  SPRM-1242 - Early Required relative traction and brake effort to Rolling Stock Operational System</p> <p>_ is assessed by :  SPRM-1243 - Late Required relative traction and brake effort to Rolling Stock Operational System</p>
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	<p>_ is assessed by : ⚠️ SPRM-1246 - Incorrect Required relative traction and brake effort to Rolling Stock Operational System</p> <p>_ is assessed by : ⚠️ SPRM-1370 - Incorrect movement authority to Train CS</p> <p>_ is assessed by : ⚠️ SPRM-1374 - Incorrect movement authority to Train CS</p> <p>_ is assessed by : ⚠️ SPRM-1475 - Early required operational traffic plan from TMS</p> <p>_ is assessed by : ⚠️ SPRM-1476 - Incorrect required operational traffic plan from TMS</p> <p>_ is assessed by : ⚠️ SPRM-1478 - Early usage restriction deactivation confirmation from Signaller</p> <p>_ is assessed by : ⚠️ SPRM-1479 - Incorrect usage restriction deactivation confirmation from Signaller</p> <p>_ is assessed by : ⚠️ SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent</p> <p>_ is assessed by : ⚠️ SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent</p> <p>_ is assessed by : ⚠️ SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent</p> <p>_ is assessed by : ⚠️ SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent</p> <p>_ is assessed by : ⚠️ SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent</p> <p>_ is assessed by : ⚠️ SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by : ⚠️ SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by : ⚠️ SPRM-1666 - Input from Integrator to TCCS Configuration: wrong checked and signed configuration data received</p> <p>_ is assessed by : ⚠️ SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received</p> <p>_ is assessed by : ⚠️ SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received</p> <p>_ is assessed by : ⚠️ SPRM-1778 - Incorrect confirmation request of usage restriction deactivation to Signaller</p> <p>_ is assessed by : ⚠️ SPRM-1780 - Early confirmation request of usage restriction deactivation to Signaller</p> <p>_ is assessed by : ⚠️ SPRM-1982 - Late wheel passing information from Wheel (2)</p> <p>_ is assessed by : ⚠️ SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received</p> <p>_ is assessed by : ⚠️ SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received</p> <p>_ is assessed by : ⚠️ SPRM-2238 -</p> <p>_ is assessed by : ⚠️ SPRM-2311 - Incorrect point position in movement permission</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrafficCS (Level 4) and/or ETPS (Level 5)
Type	 Hazard
























#### [B.3.1.4] Point and crossing failure

Any situation in which is linked to a point and crossing failure.

Note 1: "switch" is used by CSM-ASLP. "point" is used in EUROPE (e.g. EULYNX Glossary Eu.Doc.9/




ERA Subset 023 / use "point", see SPLI-985 - POINT) and in SP  SPLI-985 - POINT.  
Note 2: "crossing" is for example a "diamond crossing", "slip switch" or "double switch".


























ID	SPRM-298
old ID	CSM-ALSP B.3.1.4 RSSB CHAMOIS 3.02.01, 11.03.06
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6960 - [B.3.1.4] Point and crossing failure : 459260</p> <p>has parent :  SPRM-290 - [B.3.1] Failure of the track</p> <p>_ is parent of :  SPRM-299 - Undue movement of a point while train is approaching</p> <p>_ is assessed by :  SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received</p> <p>_ is assessed by :  SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received</p> <p>_ is assessed by :  SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received</p> <p>_ is assessed by :  SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. Trackside Asset (Level 4)
Hyperlinks	external reference - <a href="https://www.flickr.com/photos/dustpuppy/78871005/">https://www.flickr.com/photos/dustpuppy/78871005/</a>
Type	 Hazard

### Undue movement of a point while train is approaching

Undue movement of a point while train is approaching due to a signaling failure.























Note : "switch" is used by CSM-ALSP. "point" is used in EUROPE (e.g. EULYNX Glossary Eu.Doc.9/ ERA Subset 023 / use "point", see SPLI-985 - POINT) and in SP  SPLI-985 - POINT.

ID	SPRM-299
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-7519 - Undue movement of a point while train is approaching : 481524</p> <p>has parent :  SPRM-298 - [B.3.1.4] Point and crossing failure</p> <p>_ is assessed by :  SPRM-1069 - Early required point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1070 - Late required point position to Trackside Assets CS (1/2)</p> <p>_ is assessed by :  SPRM-1083 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1089 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1090 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1134 - Early wheel passing information from Wheel</p> <p>_ is assessed by :  SPRM-1135 - Incorrect wheel passing information from Wheel</p> <p>_ is assessed by :  SPRM-1293 - Early actual physical point machine position from Point Machine</p> <p>_ is assessed by :  SPRM-1294 - Incorrect actual physical point machine position from Point Machine</p> <p>_ is assessed by :  SPRM-1295 - Late actual physical point machine position from Point Machine</p> <p>_ is assessed by :  SPRM-1298 - Early requested point position from Signaller</p> <p>_ is assessed by :  SPRM-1299 - Late requested point position from Signaller</p> <p>_ is assessed by :  SPRM-1300 - Incorrect requested point position from Signaller (1)</p> <p>_ is caused by :  SPRM-1300 - Incorrect requested point position from Signaller (1)</p> <p>_ is assessed by :  SPRM-1301 - Early Required point machine movement to Point Machine</p> <p>_ is assessed by :  SPRM-1302 - Incorrect Required point machine movement to Point Machine (1)</p> <p>_ is assessed by :  SPRM-1303 - Late Required point machine movement to Point Machine (1)</p> <p>_ is assessed by :  SPRM-1982 - Late wheel passing information from Wheel (2)</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrafficCS (level 4) and/or Trackside Asset (Level 4) and/or ETPS (Level 5). To move under Wrong side signalling failure (trackside)
Type	 Hazard

### [B.3.1.5] Failure of the level crossing equipment






Any occasion when a train or rail vehicle passes over a level crossing with lower protection level than required.

ID	SPRM-300
old ID	CSM-ALSP B.3.1.5 RSSB CHAMOIS 12.02.02, 5.02
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5769 - [A3.1.1] Level Crossing Accident involving a train and pedestrians</p> <p>relates to :  SPPRAMSS-5770 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles</p> <p>relates to :  SPPRAMSS-5771 - [A3.2] Level Crossing Accident involving one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6961 - [B.3.1.5] Failure of the level crossing equipment : 481524</p> <p>has parent :  SPRM-290 - [B.3.1] Failure of the track</p> <p>_ is assessed by :  SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1666 - Input from Integrator to TCCS Configuration: wrong checked and signed configuration data received</p> <p>_ is assessed by :  SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received</p> <p>_ is assessed by :  SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received</p> <p>_ is assessed by :  SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received</p> <p>_ is assessed by :  SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrafficCS (level 4) and/or Trackside Asset (Level 4) and/or ETPS (Level 5)
Type	 Hazard

### [B.3.1.0] Other failure of the track


Any occasion falling within the category 'failure of the track', but not covered by the subcategories above














ID	SPRM-301
old ID	CSM-ALSP B.3.1.0

Status	 Content to be approved
Linked Work Items	<p>is copied from :   SPPRAMSS-6962 - [B.3.1.0] Other failure of the track : 487813</p> <p>has parent :  SPRM-290 - [B.3.1] Failure of the track</p> <p>_ is assessed by :  SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1666 - Input from Integrator to TCCS Configuration: wrong checked and signed configuration data received</p> <p>_ is assessed by :  SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received</p> <p>_ is assessed by :  SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received</p> <p>_ is assessed by :  SPRM-1943 - Early actual physical point machine position from Point Machine</p> <p>_ is assessed by :  SPRM-1944 - Late actual physical point machine position from Point Machine</p> <p>_ is assessed by :  SPRM-1945 - Incorrect actual physical point machine position from Point Machine</p> <p>_ is assessed by :  SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received</p> <p>_ is assessed by :  SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

### [B.3.2] Structures failure










A structures failure event falling within the B.3.2 sub-categories

ID	SPRM-302
old ID	CSM-ALSP B.3.2 RSSB CHAMOIS 8.04.01, 8.05.03, 10.01.02, 10.03.01, 11.02.03
Status	 Content to be approved

Linked Work Items	is copied from :   SPPRAMSS-6963 - [B.3.2] Structures failure : 459260 has parent :  SPRM-289 - [B.3] Technical Failure of the infrastructure _ is parent of :  SPRM-303 - [B.3.2.2] Viaduct failure _ is parent of :  SPRM-304 - [B.3.2.1] Tunnel failure _ is parent of :  SPRM-305 - [B.3.2.6] Station (building) Structure failure _ is parent of :  SPRM-306 - [B.3.2.4] Rail bridge structural failure _ is parent of :  SPRM-307 - [B.3.2.7] Platform failure _ is parent of :  SPRM-308 - [B.3.2.5] Over line bridge (e.g. pedestrian) failure _ is parent of :  SPRM-309 - [B.3.2.0] Other structures failure _ is parent of :  SPRM-310 - [B.3.2.8] Disorder of earthworks/embankment failure _ is parent of :  SPRM-311 - [B.3.2.3] Culvert failures
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

### [B.3.2.2] Viaduct failure









Any situation in which in linked to a viaduct failure.

ID	SPRM-303
old ID	CSM-ALSP B.3.2.2 RSSB CHAMOIS 10.01.02, 11.02.01
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge is copied from :   SPPRAMSS-6965 - [B.3.2.2] Viaduct failure : 477564 has parent :  SPRM-302 - [B.3.2] Structures failure
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

### [B.3.2.1] Tunnel failure










Any situation in which in linked to a tunnel failure.

ID	SPRM-304
old ID	CSM-ALSP B.3.2.1 RSSB CHAMOIS 11.02.08
Status	 Content to be approved

Linked Work Items	relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6964 - [B.3.2.1] Tunnel failure : 487801 has parent :  SPRM-302 - [B.3.2] Structures failure
Risk Acceptance Principle	Code of practice / Referenrece System
Type	 Hazard









### [B.3.2.6] Station (building) Structure failure


Any situation in which in linked to a station (building) Structure failure.

ID	SPRM-305
old ID	CSM-ALSP B.3.2.6
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6969 - [B.3.2.6] Station (building) Structure failure : 481524 has parent :  SPRM-302 - [B.3.2] Structures failure
Risk Acceptance Principle	Code of practice / Referenrece System
Type	 Hazard

### [B.3.2.4] Rail bridge structural failure










Any situation in which in linked to a rail bridge structural failure.

ID	SPRM-306
old ID	CSM-ALSP B.3.2.4 RSSB CHAMOIS 3.08.01, 3.08.04
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge is copied from :   SPPRAMSS-6967 - [B.3.2.4] Rail bridge structural failure : 481524 has parent :  SPRM-302 - [B.3.2] Structures failure

Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard










**[B.3.2.7] Platform failure**

Any situation in which is linked to a platform failure.

ID	SPRM-307
old ID	CSM-ALSP B.3.2.7
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6970 - [B.3.2.7] Platform failure : 481524</p> <p>has parent :  SPRM-302 - [B.3.2] Structures failure</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

**[B.3.2.5] Over line bridge (e.g. pedestrian) failure**






Any situation in which is linked to an over line bridge (e.g. pedestrian) failure.

ID	SPRM-308
old ID	CSM-ALSP B.3.2.5 RSSB CHAMOIS 3.05.02, 10.01.02
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge</p> <p>is copied from :   SPPRAMSS-6968 - [B.3.2.5] Over line bridge (e.g. pedestrian) failure : 481524</p> <p>has parent :  SPRM-302 - [B.3.2] Structures failure</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

**[B.3.2.0] Other structures failure**










Any occasion falling within the category 'structures failure', but not covered by the subcategories above.

ID	SPRM-309
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old ID	CSM-ALSP B.3.2.0
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-6972 - [B.3.2.0] Other structures failure : 487813 has parent :  SPRM-302 - [B.3.2] Structures failure
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard









### [B.3.2.8] Disorder of earthworks/embankment failure

Any situation in which in linked to a disorder of earthworks/embankment failure.

ID	SPRM-310
old ID	CSM-ALSP B.3.2.8 RSSB CHAMOIS 3.08.03, 11.01.01
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6971 - [B.3.2.8] Disorder of earthworks/embankment failure : 481524 has parent :  SPRM-302 - [B.3.2] Structures failure
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

### [B.3.2.3] Culvert failures

Any situation in which in linked to culvert failures.


















ID	SPRM-311
old ID	CSM-ALSP B.3.2.3 RSSB CHAMOIS 3.08.01
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles is copied from :   SPPRAMSS-6966 - [B.3.2.3] Culvert failures : 481524 has parent :  SPRM-302 - [B.3.2] Structures failure
Risk Acceptance Principle	Code of practice / Referrece System



Type	 Hazard
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### [B.3.0] Other failures of the infrastructure

Other failure of the infrastructure falling within the B.3.0 sub-categories

ID	SPRM-312
old ID	CSM-ALSP B.3.0
Status	 Content to be approved
Linked Work Items	<p>is copied from :   SPPRAMSS-6973 - [B.3.0] Other failures of the infrastructure : 487813</p> <p>has parent :  SPRM-289 - [B.3] Technical Failure of the infrastructure</p> <p>_ is parent of :  SPRM-313 - [B.3.0.0] Other un-coded technical failure of the infrastructure</p> <p>_ is parent of :  SPRM-314 - [B.3.0.2] Train detection equipment failure (trackside)</p> <p>_ is parent of :  SPRM-315 - [B.3.0.1] Power supply equipment failure</p> <p>_ is parent of :  SPRM-316 - [B.3.0.3] Overhead contact line failure</p> <p>_ is parent of :  SPRM-317 - [B.3.0.4] Loss of ventilation</p> <p>_ is assessed by :  SPRM-1071 - Incorrect required point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1083 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1089 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1090 - Estimated point position to Trackside Assets CS</p> <p>_ is assessed by :  SPRM-1732 - Incorrect Required point machine movement to Point Machine (2)</p> <p>_ is assessed by :  SPRM-1733 - Late Required point machine movement to Point Machine (2)</p> <p>_ is assessed by :  SPRM-1734 - Late required point position to Trackside Assets CS (2/2)</p>
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard

### [B.3.0.0] Other un-coded technical failure of the infrastructure


























Any occasion falling within the category 'technical failure of the infrastructure', but not covered by any of the sub-categories coded above.

ID	SPRM-313
old ID	CSM-ALSP B.3.0.0
Status	 Content to be approved
Linked Work Items	<p>is copied from :   SPPRAMSS-6978 - [B.3.0.0] Other un-coded technical failure of the infrastructure : 487813</p> <p>has parent :  SPRM-312 - [B.3.0] Other failures of the infrastructure</p>
Risk Acceptance Principle	Code of practice / Referrece System
Type	 Hazard









**[B.3.0.2] Train detection equipment failure (trackside)**

Any situation in which in linked to a train detection equipment failure (trackside).

ID	SPRM-314
old ID	CSM-ALSP B.3.0.2 RSSB CHAMOIS 11.04.02, 11.04.10
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge</p> <p>is copied from :   SPPRAMSS-6975 - [B.3.0.2] Train detection equipment failure (trackside) : 487801</p> <p>has parent :  SPRM-312 - [B.3.0] Other failures of the infrastructure</p> <p>_ is assessed by :  SPRM-1134 - Early wheel passing information from Wheel</p> <p>_ is assessed by :  SPRM-1135 - Incorrect wheel passing information from Wheel</p> <p>_ is assessed by :  SPRM-1438 - Late wheel passing information from Wheel (1)</p> <p>_ is assessed by :  SPRM-1636 - Output of TCCS Configuration to Traffic CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1638 - Output of TCCS Configuration to Trackside Assets CS System: wrong configuration data sent</p> <p>_ is assessed by :  SPRM-1640 - Output of TCCS Configuration to Configuration Manager: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1642 - Output of TCCS Configuration to Signaller: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1646 - Output of TCCS Configuration to Traffic Management System: wrong configuration data state sent</p> <p>_ is assessed by :  SPRM-1649 - Input from Traffic CS System to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1660 - Input from Configuration Manager to TCCS Configuration: wrong configuration data state received</p> <p>_ is assessed by :  SPRM-1666 - Input from Integrator to TCCS Configuration: wrong checked and signed configuration data received</p> <p>_ is assessed by :  SPRM-1672 - Input from Data Preparation to TCCS Configuration: wrong signed configuration data received</p> <p>_ is assessed by :  SPRM-1678 - Input from Integrator to TCCS Configuration: wrong configuration data received</p> <p>_ is assessed by :  SPRM-1982 - Late wheel passing information from Wheel (2)</p> <p>_ is assessed by :  SPRM-2010 - Input from Trackside Assets CS System to TCCS Configuration: wrong system state observation received</p> <p>_ is assessed by :  SPRM-2013 - Input from TrainCS System to TCCS Configuration: wrong system state observation received</p>
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. Trackside Asset (Level 4)
Type	 Hazard







**[B.3.0.1] Power supply equipment failure**

Any situation in which in linked to a power supply equipment failure.

ID	SPRM-315
old ID	CSM-ALSP B.3.0.1 RSSB CHAMOIS 6.01.06, 8.05.03, 11.04.09, 11.05.03, 11.05.04
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5782 - [A0.1] Electric shock is copied from :   SPPRAMSS-6974 - [B.3.0.1] Power supply equipment failure : 481524 has parent :  SPRM-312 - [B.3.0] Other failures of the infrastructure
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**[B.3.0.3] Overhead contact line failure**





Any situation in which in linked to a overhead contact line failure.

ID	SPRM-316
old ID	CSM-ALSP B.3.0.3 RSSB CHAMOIS 11.05.02
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-5782 - [A0.1] Electric shock is copied from :   SPPRAMSS-6976 - [B.3.0.3] Overhead contact line failure : 481524 has parent :  SPRM-312 - [B.3.0] Other failures of the infrastructure
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Code of Practice / Reference System for the mechanical part - Explicit Risk Estimation for control system
Type	 Hazard

**[B.3.0.4] Loss of ventilation**

Any situation involving a technical malfunctioning of the ventilation system in a tunnel or in a station.

Note: for example, a loss of tunnel ventilation compromising fire management plan, potentially leading to victims or damage


ID	SPRM-317
old ID	CSM-ALSP B.3.0.4
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-6977 - [B.3.0.4] Loss of ventilation : 487813 has parent :  SPRM-312 - [B.3.0] Other failures of the infrastructure
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Code of Practice / Reference System for the mechanical part - Explicit Risk Estimation for control system












Type	 Hazard
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### [B.1.1.3] Pushed point

Any occasion when a point in a wrong position is run over in trailing direction (converging points) unintentionally.

Note 1: point is in wrong position due to an undetected system failure







Note 2: "switch" is used by CSM-ALSP. "point" is used in EUROPE (e.g. EULYNX Glossary Eu.Doc.9/ ERA Subset 023 / use "point", see SPLI-985 - POINT) and in SP  SPLI-985 - POINT.

ID	SPRM-318
old ID	CSM-ALSP B.1.1.3 RSSB CHAMOIS 3.02
Status	 Done / To be decided
Linked Work Items	<p>relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle</p> <p>relates to :  SPPRAMSS-5759 - [A1.2] Collision of train with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5760 - [A1.3] Collision of one or more rail vehicles with another rail vehicle</p> <p>relates to :  SPPRAMSS-5761 - [A1.4] Collision of one or more rail vehicles with obstacle within the clearance gauge</p> <p>relates to :  SPPRAMSS-5764 - [A2.1] Derailment of train</p> <p>relates to :  SPPRAMSS-5765 - [A2.2] Derailment of one or more rail vehicles</p> <p>is copied from :   SPPRAMSS-6927 - [B.1.1.3] Pushed point : 487801</p> <p>has parent :  SPRM-265 - General System Hazards</p>
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

### [X.7.1] Contact with traction supply

Contact with traction supply in case of traction supply failure

Note: this hazard refers to electric shocks (i.e. for people).






ID	SPRM-319
old ID	RSSB 6.01
Status	 Content to be approved
Linked Work Items	<p>relates to :  SPPRAMSS-5782 - [A0.1] Electric shock</p> <p>is copied from :   SPPRAMSS-7284 - [X.7.1] Contact with traction supply : 481524</p> <p>has parent :  SPRM-265 - General System Hazards</p>
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

### [X.7.2] Contact with non-traction supply

Contact with non-traction supply in case of non-traction supply failure







Note: this hazard refers to electric shocks (i.e. for people).

ID	SPRM-320
old ID	RSSB 6.02
Status	 Content to be approved

Linked Work Items	relates to :  SPPRAMSS-5782 - [A0.1] Electric shock is copied from :   SPPRAMSS-7285 - [X.7.2] Contact with non-traction supply : 481524 has parent :  SPRM-265 - General System Hazards
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard


### [X.8] Release/loss of dangerous substances


Any situation which is linked to a release/loss of dangerous substances.

ID	SPRM-321
old ID	RSSB 7
Status	 Content to be approved
Linked Work Items	relates to :  SPPRAMSS-8373 - Human Injury is copied from :   SPPRAMSS-7288 - [X.8] Release/loss of dangerous substances : 481524 has parent :  SPRM-265 - General System Hazards
Risk Acceptance Principle	Code of practice / Reference System
Type	 Hazard

## 3 ETCS SUBSET-091 Hazards






### Integration of SUBSET-091

The present section lists all CCS hazards identified in  SPPRAMSS-11039 - [SUBSET-091] version 4.0.0 (i.e. ETCS Baseline 4). However, the latter covers neither ERTMS L2 with moving blocks and ATO GoA 3 and 4.

[SPRM-323,  Text]






### DMI-01a

Failure to provide Warning indication

ID	SPRM-324
old ID	SUBSET-091 V4.0.0 - DMI-01a
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10894 - DMI-01a : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






### DMI-01b

Valid ETCS on-board output via DMI obscured by erroneous output (audio or visual)

ID	SPRM-325
old ID	SUBSET-091 V4.0.0 - DMI-01b
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10895 - DMI-01b : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-01c**

Failure to display request for acknowledgement

ID	SPRM-326
old ID	SUBSET-091 V4.0.0 - DMI-01c
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10896 - DMI-01c : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-01f**

Failure to display ACK for RV request

ID	SPRM-327
old ID	SUBSET-091 V4.0.0 - DMI-01f
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10897 - DMI-01f : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-01g**

## Failure to display Air Tightness Control

ID	SPRM-328
old ID	SUBSET-091 V4.0.0 - DMI-01g
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10898 - DMI-01g : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-01h**

## Failure to present Display Distance to Target information

ID	SPRM-329
old ID	SUBSET-091 V4.0.0 - DMI-01h
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10899 - DMI-01h : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-01i**

## Failure to present Time To Indication information

ID	SPRM-330
old ID	SUBSET-091 V4.0.0 - DMI-01i
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10900 - DMI-01i : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-02a**

False presentation of Warning

ID	SPRM-331
old ID	SUBSET-091 V4.0.0 - DMI-02a
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10901 - DMI-02a : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-02b**

False presentation of IS mode (shown as IS mode when not)

ID	SPRM-332
old ID	SUBSET-091 V4.0.0 - DMI-02b
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10902 - DMI-02b : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-02c**

False presentation of brake indication

ID	SPRM-333
old ID	SUBSET-091 V4.0.0 - DMI-02c
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10903 - DMI-02c : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-02g**

False presentation of "LX not protected"

ID	SPRM-334
old ID	SUBSET-091 V4.0.0 - DMI-02g
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10904 - DMI-02g : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-03e**

Wrong fixed text message displayed

ID	SPRM-335
old ID	SUBSET-091 V4.0.0 - DMI-03e
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10905 - DMI-03e : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**DMI-03f**






"Tunnel stopping area" displayed at the wrong geographical place

ID	SPRM-336
old ID	SUBSET-091 V4.0.0 - DMI-03f
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10906 - DMI-03f : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard








**DMI-03g**

## Wrong Display Distance to Target information

ID	SPRM-337
old ID	SUBSET-091 V4.0.0 - DMI-03g
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10907 - DMI-03g : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-03h**

## Wrong Time To Indication information

ID	SPRM-338
old ID	SUBSET-091 V4.0.0 - DMI-03h
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10908 - DMI-03h : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-04a**

## False command to exit shunting

ID	SPRM-339
old ID	SUBSET-091 V4.0.0 - DMI-04a
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10909 - DMI-04a : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-04c**

False START command

ID	SPRM-340
old ID	SUBSET-091 V4.0.0 - DMI-04c
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10910 - DMI-04c : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-04g**

Spurious request to change to another ETCS Level

ID	SPRM-341
old ID	SUBSET-091 V4.0.0 - DMI-04g
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10911 - DMI-04g : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-04h**

Spurious acknowledgement of intervention leading to release of emergency or service brake

ID	SPRM-342
old ID	SUBSET-091 V4.0.0 - DMI-04h
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10912 - DMI-04h : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-04j**

## False Isolation command

ID	SPRM-343
old ID	SUBSET-091 V4.0.0 - DMI-04j
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10913 - DMI-04j : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-05a**

## Deleted Level transition acknowledgement

ID	SPRM-344
old ID	SUBSET-091 V4.0.0 - DMI-05a
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10914 - DMI-05a : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-05b**

## Deleted acknowledgement

ID	SPRM-345
old ID	SUBSET-091 V4.0.0 - DMI-05b
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10915 - DMI-05b : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-05e**

Deleted driver request to apply Track Adhesion Factor

ID	SPRM-346
old ID	SUBSET-091 V4.0.0 - DMI-05e
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10916 - DMI-05e : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**DMI-05f**

Deleted Reversing mode acknowledgement

ID	SPRM-347
old ID	SUBSET-091 V4.0.0 - DMI-05f
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10917 - DMI-05f : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1a**

False acknowledgement of mode change to less restrictive mode

ID	SPRM-348
old ID	SUBSET-091 V4.0.0 - MMI-1a
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10918 - MMI-1a : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Mode Transition Table
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1b**

False command to enter NL mode

ID	SPRM-349
old ID	SUBSET-091 V4.0.0 - MMI-1b
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10919 - MMI-1b : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Mode Transition Table
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1c**

False command of Override request

ID	SPRM-350
old ID	SUBSET-091 V4.0.0 - MMI-1c
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10920 - MMI-1c : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Override procedure
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1d**

False acknowledgement of Level Transition

ID	SPRM-351
old ID	SUBSET-091 V4.0.0 - MMI-1d
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10921 - MMI-1d : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Mode Transition Table
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1e**

## False acknowledgement of Train Trip

ID	SPRM-352
old ID	SUBSET-091 V4.0.0 - MMI-1e
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10922 - MMI-1e : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Mode Transition Table
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1f**

## False acknowledgement of Track Ahead Free

ID	SPRM-353
old ID	SUBSET-091 V4.0.0 - MMI-1f
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10923 - MMI-1f : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1g**

## False request for SH mode

ID	SPRM-354
old ID	SUBSET-091 V4.0.0 - MMI-1g
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10924 - MMI-1g : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1h**

False acknowledgement of undesired train movement (RAP, UDMP, SSS, PT distance and reversing distance)

ID	SPRM-355
old ID	SUBSET-091 V4.0.0 - MMI-1h
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10925 - MMI-1h : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Supervision by ETCS On-board
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1i**

False request for SM mode

ID	SPRM-356
old ID	SUBSET-091 V4.0.0 - MMI-1i
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10926 - MMI-1i : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-1j**

False command to inhibit BTM alarm reaction

ID	SPRM-357
old ID	SUBSET-091 V4.0.0 - MMI-1j
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10927 - MMI-1j : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2a.1**

False presentation of train speed

ID	SPRM-358
old ID	SUBSET-091 V4.0.0 - MMI-2a.1
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10928 - MMI-2a.1 : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Supervision by ETCS On-board
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**MMI-2a.2**






False presentation of speed (except train speed) or distance, including supervision status

ID	SPRM-359
old ID	SUBSET-091 V4.0.0 - MMI-2a.2
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10929 - MMI-2a.2 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Supervision by ETCS On-board
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard








**MMI-2b**

False presentation of mode

ID	SPRM-360
old ID	SUBSET-091 V4.0.0 - MMI-2b
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10930 - MMI-2b : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2c**

False presentation of track adhesion factor

ID	SPRM-361
old ID	SUBSET-091 V4.0.0 - MMI-2c
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10931 - MMI-2c : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2d**

Failure to present Entry in FS/OS information

ID	SPRM-362
old ID	SUBSET-091 V4.0.0 - MMI-2d
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10932 - MMI-2d : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2e**

False presentation of train data/additional data

ID	SPRM-363
old ID	SUBSET-091 V4.0.0 - MMI-2e
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10933 - MMI-2e : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2f**

Failure to display Override status, including false enabling of override selection

ID	SPRM-364
old ID	SUBSET-091 V4.0.0 - MMI-2f
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10934 - MMI-2f : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Supervision by ETCS On-board
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2g**

Failure to present acknowledgement message to a less restrictive mode

ID	SPRM-365
old ID	SUBSET-091 V4.0.0 - MMI-2g
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10935 - MMI-2g : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2h**

False presentation of TAF request

ID	SPRM-366
old ID	SUBSET-091 V4.0.0 - MMI-2h
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10936 - MMI-2h : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2i**

Failure to present LX “not protected” information

ID	SPRM-367
old ID	SUBSET-091 V4.0.0 - MMI-2i
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10937 - MMI-2i : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Supervision by ETCS On-board
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2j**

False presentation of reversing allowed

ID	SPRM-368
old ID	SUBSET-091 V4.0.0 - MMI-2j
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10938 - MMI-2j : 466044 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Supervision by ETCS On-board
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2k**

False presentation of level transition announcement

ID	SPRM-369
old ID	SUBSET-091 V4.0.0 - MMI-2k
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10939 - MMI-2k : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2l**

Failure to present Entry in SM information

ID	SPRM-370
old ID	SUBSET-091 V4.0.0 - MMI-2l
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10940 - MMI-2l : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-2m**

Failure to indicate BTM alarm reaction inhibition

ID	SPRM-371
old ID	SUBSET-091 V4.0.0 - MMI-2m
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10941 - MMI-2m : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-3**

Falsification of driver's train data / additional data input stored on-board

ID	SPRM-372
old ID	SUBSET-091 V4.0.0 - MMI-3
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10942 - MMI-3 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**MMI-4**

Falsification of SR speed/distance data

ID	SPRM-373
old ID	SUBSET-091 V4.0.0 - MMI-4
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10943 - MMI-4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**MMI-5**






Falsification of train integrity confirmation input

ID	SPRM-374
old ID	SUBSET-091 V4.0.0 - MMI-5
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10944 - MMI-5 : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**MMI-6**






Falsification of Virtual Balise Cover

ID	SPRM-375
old ID	SUBSET-091 V4.0.0 - MMI-6

Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10945 - MMI-6 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ODO-1**

Incorrect standstill indication

ID	SPRM-376
old ID	SUBSET-091 V4.0.0 - ODO-1
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10946 - ODO-1 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Balise detection. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ODO-2**

Speed measurement underestimates trains actual speed

ID	SPRM-377
old ID	SUBSET-091 V4.0.0 - ODO-2
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10947 - ODO-2 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.3.1.2: Accuracy of speed known on-board, in ceiling speed monitoring, release speed monitoring and in target speed monitoring in case the compensation of the speed measurement inaccuracy is inhibited. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ODO-3**

Incorrect actual physical speed direction

ID	SPRM-378
old ID	SUBSET-091 V4.0.0 - ODO-3
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10948 - ODO-3 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Balise Linking Balise detection. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ODO-4**

The confidence interval for distance measurement does not include the real position of the train

ID	SPRM-379
old ID	SUBSET-091 V4.0.0 - ODO-4
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10949 - ODO-4 : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Balise Linking Maximum distance between Balise Groups. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ODO-5**

Cold Movement not detected

ID	SPRM-380
old ID	SUBSET-091 V4.0.0 - ODO-5
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10950 - ODO-5 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-1**

## Balise linking consistency checking failure

ID	SPRM-381
old ID	SUBSET-091 V4.0.0 - KERNEL-1
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10951 - KERNEL-1 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: In case the message is received but the linking is not consistent: 5.2.1.1: Delay between receiving of a balise message and applying the emergency brake. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**KERNEL-2**

## Balise group message consistency checking failure


ID	SPRM-382
old ID	SUBSET-091 V4.0.0 - KERNEL-2
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10952 - KERNEL-2 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.2.1.1: Delay between receiving of a balise message and applying the emergency brake. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-3**

## Failure of radio message correctness check






ID	SPRM-383
old ID	SUBSET-091 V4.0.0 - KERNEL-3
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10953 - KERNEL-3 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)



Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-4**

## Radio sequencing checking failure

ID	SPRM-384
old ID	SUBSET-091 V4.0.0 - KERNEL-4
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10954 - KERNEL-4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Radio message acknowledgement. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**KERNEL-5**


## Radio link supervision function failure

ID	SPRM-385
old ID	SUBSET-091 V4.0.0 - KERNEL-5
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10955 - KERNEL-5 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Radio link time out. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-6**






## Manage communication session failure

ID	SPRM-386
old ID	SUBSET-091 V4.0.0 - KERNEL-6
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10956 - KERNEL-6 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards

Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Radio link time out. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-7**

## Incorrect LRBG

ID	SPRM-387
old ID	SUBSET-091 V4.0.0 - KERNEL-7
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10957 - KERNEL-7 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-8**







## Emergency Message Acknowledgement Failure

ID	SPRM-388
old ID	SUBSET-091 V4.0.0 - KERNEL-8
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10958 - KERNEL-8 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-9**






## Speed calculation underestimates train speed

ID	SPRM-389
old ID	SUBSET-091 V4.0.0 - KERNEL-9
Status	 Open

Linked Work Items	is copied from :   SPPRAMSS-10959 - KERNEL-9 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards _ is assessed by :  SPRM-1183 - Incorrect train speed from Rolling Stock Reference Point _ is assessed by :  SPRM-1184 - Late train speed from Rolling Stock Reference Point
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.3.1.2: Accuracy of speed known on-board, in ceiling speed monitoring, release speed monitoring and in target speed monitoring in case the compensation of the speed measurement inaccuracy is inhibited. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-10**

Functional failure of standstill detection

ID	SPRM-390
old ID	SUBSET-091 V4.0.0 - KERNEL-10
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10960 - KERNEL-10 : 466044 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-11**

Incorrect traction/braking model (e.g. brake use restrictions)

ID	SPRM-391
old ID	SUBSET-091 V4.0.0 - KERNEL-11
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10961 - KERNEL-11 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-12**

Failure of standstill supervision

ID	SPRM-392
old ID	SUBSET-091 V4.0.0 - KERNEL-12
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10962 - KERNEL-12 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-13**

Failure of reverse movement distance monitoring

ID	SPRM-393
old ID	SUBSET-091 V4.0.0 - KERNEL-13
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10963 - KERNEL-13 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-14**

Failure of unauthorised direction movement protection

ID	SPRM-394
old ID	SUBSET-091 V4.0.0 - KERNEL-14
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10964 - KERNEL-14 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-15**

Incorrect cab status (TIU failure)

ID	SPRM-395
old ID	SUBSET-091 V4.0.0 - KERNEL-15
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10965 - KERNEL-15 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**KERNEL-16**

Incorrect train status TIU sleeping/cab status

ID	SPRM-396
old ID	SUBSET-091 V4.0.0 - KERNEL-16
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10966 - KERNEL-16 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Mode Transition Table. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-17**






Wrong Acceptance of MA

ID	SPRM-397
old ID	SUBSET-091 V4.0.0 - KERNEL-17
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10967 - KERNEL-17 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>

Type	 Hazard
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**KERNEL-18**

Failure to manage RBC/RBC

ID	SPRM-398
old ID	SUBSET-091 V4.0.0 - KERNEL-18
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10968 - KERNEL-18 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Radio link time out. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**KERNEL-19**


Failure of train trip supervision in OS, LS and FS

ID	SPRM-399
old ID	SUBSET-091 V4.0.0 - KERNEL-19
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10969 - KERNEL-19 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.2.1.1: Delay between receiving of a balise message and applying the emergency brake 5.2.1.13: Delay between passing an EOA/LOA and applying the emergency brake. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-20**






Failure of train trip supervision, shunting and SR

ID	SPRM-400
old ID	SUBSET-091 V4.0.0 - KERNEL-20
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10970 - KERNEL-20 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards

Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.2.1.1: Delay between receiving of a balise message and applying the emergency brake. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-21**

Incorrect supervision of stop in SR

ID	SPRM-401
old ID	SUBSET-091 V4.0.0 - KERNEL-21
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10971 - KERNEL-21 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.2.1.1: Delay between receiving of a balise message and applying the emergency brake. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-22**

Incorrect current EOA

ID	SPRM-402
old ID	SUBSET-091 V4.0.0 - KERNEL-22
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10972 - KERNEL-22 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.2.1.6: Delay between receiving of an emergency message and applying the reaction on-board. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-23**

Incorrect train position / train data sent from on-board to trackside

ID	SPRM-403
old ID	SUBSET-091 V4.0.0 - KERNEL-23
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10973 - KERNEL-23 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.3.1.3: Age of speed and position measurement for position report to trackside 5.3.2.1: Safe clock drift. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-24**

Failure of message acknowledgement

ID	SPRM-404
old ID	SUBSET-091 V4.0.0 - KERNEL-24
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10974 - KERNEL-24 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-25**






Incorrect traction/braking model (Acceleration only)

ID	SPRM-405
old ID	SUBSET-091 V4.0.0 - KERNEL-25
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10975 - KERNEL-25 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard








**KERNEL-27**

Incorrect System Data (e.g. current level)

ID	SPRM-406
old ID	SUBSET-091 V4.0.0 - KERNEL-27
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10976 - KERNEL-27 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**KERNEL-28**


Incorrect confidence interval

ID	SPRM-407
old ID	SUBSET-091 V4.0.0 - KERNEL-28
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10977 - KERNEL-28 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Inherent Protective Feature (from Subset-088 Part 2): Linking reaction Note: Also, the linking reaction is a valid protective feature for BTM-H1 and EUB-H1. However, when deriving the targets for these events - as stated in the present document - this protection has already been credited. Maximum distance between Balise Groups. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-29**






Failure to shorten MA

ID	SPRM-408
old ID	SUBSET-091 V4.0.0 - KERNEL-29
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10978 - KERNEL-29 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)

Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-30**

Incorrect shortening of MA

ID	SPRM-409
old ID	SUBSET-091 V4.0.0 - KERNEL-30
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10979 - KERNEL-30 : 466978 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**KERNEL 32**


Failure of loop message consistency checking

ID	SPRM-410
old ID	SUBSET-091 V4.0.0 - KERNEL 32
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10980 - KERNEL 32 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**KERNEL-33**






Wrong processing of MA information

ID	SPRM-411
old ID	SUBSET-091 V4.0.0 - KERNEL-33
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10981 - KERNEL-33 : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation

Rational	Corresponding performance requirement in Subset-041: 5.2.1.3: Delay between receiving of a balise message and reporting the resulting change of status on-board (5.2.1.4: Delay between receiving of a MA via radio and the update of EOA/LOA on-board). Note: Whether 5.2.1.4 is safety related must be evaluated in the specific application's hazard analysis, see further section 5.3. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-34**

Incorrect supervision of MA time-outs (sections and overlaps)

ID	SPRM-412
old ID	SUBSET-091 V4.0.0 - KERNEL-34
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10982 - KERNEL-34 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.2.1.3: Delay between receiving of a balise message and reporting the resulting change of status on-board (5.2.1.4: Delay between receiving of a MA via radio and the update of EOA/LOA on-board). Note: Whether 5.2.1.4 is safety related must be evaluated in the specific application's hazard analysis, see further section 5.3. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-35**

Incorrect supervision of odometry errors for distance measurement

ID	SPRM-413
old ID	SUBSET-091 V4.0.0 - KERNEL-35
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10983 - KERNEL-35 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**KERNEL-36**

Incorrect relocation of location based information

ID	SPRM-414
old ID	SUBSET-091 V4.0.0 - KERNEL-36
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10984 - KERNEL-36 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-1**

Service brake / emergency brake not commanded when required

ID	SPRM-415
old ID	SUBSET-091 V4.0.0 - TI-1
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10985 - TI-1 : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Corresponding performance requirement in Subset-041: 5.2.1.1: Delay between receiving of a balise message and applying the emergency brake 5.2.1.13: Delay between passing an EOA/LOA and applying the emergency brake. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-2**

Service brake / emergency brake release commanded when not required

ID	SPRM-416
old ID	SUBSET-091 V4.0.0 - TI-2
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10986 - TI-2 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-3**

Inappropriate sleeping request

ID	SPRM-417
old ID	SUBSET-091 V4.0.0 - TI-3
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10987 - TI-3 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-4**

Incorrect brake status (TIU failure)

ID	SPRM-418
old ID	SUBSET-091 V4.0.0 - TI-4
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10988 - TI-4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-5**

Incorrect direction controller position report (TIU failure)

ID	SPRM-419
old ID	SUBSET-091 V4.0.0 - TI-5
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10989 - TI-5 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-6b**

Wrong Cabin considered as Active

ID	SPRM-420
old ID	SUBSET-091 V4.0.0 - TI-6b
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10990 - TI-6b : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-7**

Inappropriate passive shunting request

ID	SPRM-421
old ID	SUBSET-091 V4.0.0 - TI-7
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10991 - TI-7 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-8**

Inappropriate Non Leading permitted signal received

ID	SPRM-422
old ID	SUBSET-091 V4.0.0 - TI-8
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10992 - TI-8 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-10**

Falsification of train data received by External Source

ID	SPRM-423
old ID	SUBSET-091 V4.0.0 - TI-10
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10993 - TI-10 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-11**

Traction Cut-Off not commanded when required

ID	SPRM-424
old ID	SUBSET-091 V4.0.0 - TI-11
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10994 - TI-11 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-12**

Inappropriate Train Integrity Confirmed Status received

ID	SPRM-425
old ID	SUBSET-091 V4.0.0 - TI-12
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10995 - TI-12 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**TI-13**

Falsification of Overall Consist Length Information received by External Source

ID	SPRM-426
old ID	SUBSET-091 V4.0.0 - TI-13
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10996 - TI-13 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**EUB-H1**






A balise group is not detected, due to failure of a balise group to transmit a detectable signal

ID	SPRM-427
old ID	SUBSET-091 V4.0.0 - EUB-H1
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-10997 - EUB-H1 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. Trackside Assets CS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard








**EUB-H4**

Transmission of an erroneous telegram interpretable as correct, due to failure within a Balise

ID	SPRM-428
old ID	SUBSET-091 V4.0.0 - EUB-H4
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10998 - EUB-H4 : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**EUB-H7**

Erroneous localisation of a Balise Group, with reception of valid telegrams, due to failure within Balises (too strong up-link signal)

ID	SPRM-429
old ID	SUBSET-091 V4.0.0 - EUB-H7
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-10999 - EUB-H7 : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**EUB-H8**

The order of reported Balises, with reception of valid telegram, is erroneous due to failure within a Balise (too strong up-link signal)

ID	SPRM-430
old ID	SUBSET-091 V4.0.0 - EUB-H8
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11000 - EUB-H8 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**EUB-H9**

Erroneous reporting of a Balise Group in a different track, with reception of valid telegrams, due to failures within Balises (too strong up-link signal)

ID	SPRM-431
old ID	SUBSET-091 V4.0.0 - EUB-H9
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11001 - EUB-H9 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**BTM-H1**

A balise group is not detected, due to failure within the on-board BTM function

ID	SPRM-432
old ID	SUBSET-091 V4.0.0 - BTM-H1
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11002 - BTM-H1 : 470054 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**BTM-H4**

Transmission to the on-board kernel of an erroneous telegram, interpretable as correct, due to failure within the on-board BTM function

ID	SPRM-433
old ID	SUBSET-091 V4.0.0 - BTM-H4
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11003 - BTM-H4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**BTM-H7**

Erroneous localisation of a Balise Group, with reception of valid telegrams, due to failure within the on-board BTM function (erroneous threshold function or significantly excessive Tele-powering signal)

ID	SPRM-434
old ID	SUBSET-091 V4.0.0 - BTM-H7
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11004 - BTM-H7 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**BTM-H8**


The order of reported Balises, with reception of valid telegrams, is erroneous due to failure within the on-board BTM function (erroneous threshold function or significantly excessive Tele-powering signal)

ID	SPRM-435
old ID	SUBSET-091 V4.0.0 - BTM-H8
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11005 - BTM-H8 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**BTM-H9**






Erroneous reporting of a Balise Group in a different track, with reception of valid telegrams, due to failure within the on-board BTM function (erroneous threshold function or significantly excessive Tele-powering signal)

ID	SPRM-436
old ID	SUBSET-091 V4.0.0 - BTM-H9
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11006 - BTM-H9 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation

Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**OB-EUR-H4**

Radio message corrupted in on-board Euroradio, such that the message appears as consistent

ID	SPRM-437
old ID	SUBSET-091 V4.0.0 - OB-EUR-H4
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-11007 - OB-EUR-H4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrainCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**TR-EUR-H4**


Radio message corrupted in trackside Euroradio, such that the message appears as consistent

ID	SPRM-438
old ID	SUBSET-091 V4.0.0 - TR-EUR-H4
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-11008 - TR-EUR-H4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. Trackside Assets CS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**LEU-H4**






Transmission of an erroneous telegram / telegrams interpretable as correct, due to failure within the LEU function

ID	SPRM-439
old ID	SUBSET-091 V4.0.0 - LEU-H4
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11009 - LEU-H4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards

Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**EUL-H4**

Transmission of an erroneous telegram / telegrams interpretable as correct, due to failure within a Loop

ID	SPRM-440
old ID	SUBSET-091 V4.0.0 - EUL-H4
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11010 - EUL-H4 : 470054 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**LTM-H4**

Transmission of an erroneous telegram / telegrams, interpretable as correct, due to failure within the on-board LTM function

ID	SPRM-441
old ID	SUBSET-091 V4.0.0 - LTM-H4
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11011 - LTM-H4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**RBC-2**






Incorrect radio message sent from RBC Kernel, such that the message appears as consistent

ID	SPRM-442
old ID	SUBSET-091 V4.0.0 - RBC-2
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-11012 - RBC-2 : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards

Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrafficCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






### RBC-3

The RBC misinterprets a message from an adjacent RBC, causing incorrect message to ETCS on-board

ID	SPRM-443
old ID	SUBSET-091 V4.0.0 - RBC-3
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-11013 - RBC-3 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrafficCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

### RBC-4

The RBC gives an erroneous message to an adjacent RBC

ID	SPRM-444
old ID	SUBSET-091 V4.0.0 - RBC-4
Status	 Content to be approved
Linked Work Items	is copied from :   SPPRAMSS-11014 - RBC-4 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Rational	Explicit Risk Estimation based on TSI CCS. TrafficCS (Level 5)
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






### ETCS\_OB01

ETCS Core Hazard THR

The hazard rate for the ETCS on-board system, less those parts forming part of the transmission paths, shall be shown not to exceed a THR of

0.67\*10<sup>-9</sup> dangerous failures/hour






(background information is provided by Subset-088 Part 3, paragraph 12.3.1.1)

ID	SPRM-445
old ID	SUBSET-091 V4.0.0 - ETCS_OB01
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11015 - ETCS_OB01 : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**ETCS\_OB02**

The ETCS On-board Data entry process must be of a quality level that is appropriate to the required safety level.

(background information is provided by Subset-088 Part 3, paragraph 12.6.3.1)

ID	SPRM-446
old ID	SUBSET-091 V4.0.0 - ETCS_OB02
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11016 - ETCS_OB02 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**ETCS\_OB05**


Corruption of radio messages

The requirement for the non-trusted part of OB-EUR-H4 is that the non-trusted ETCS on-board radio transmission equipment shall respect the definition of non-trusted as given in paragraph 5.1.1.6 and the THR of

1.0 \* 10<sup>-11</sup> dangerous failures / hour

(background information is provided by Subset-088 Part 3, paragraph 12.5.1.1)

ID	SPRM-447
old ID	SUBSET-091 V4.0.0 - ETCS_OB05
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11017 - ETCS_OB05 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation

Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ETCS\_OB06**

Corruption of balise group message

The requirement for the non-trusted part of BTM-H4 is that the non-trusted ETCS on-board balise transmission equipment shall respect the definition of non-trusted given in paragraph 5.1.1.6. and the THR of

$1.0 \times 10^{-11}$  dangerous failures / hour

(background information is provided by Subset-088 Part 3, paragraph 12.5.2.1)

ID	SPRM-448
old ID	SUBSET-091 V4.0.0 - ETCS_OB06
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11018 - ETCS_OB06 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**ETCS\_OB07**

Failure of balise group detection

The rate of failure for the ETCS on-board to fail to detect a balise group shall be shown not to exceed

$1.0 \times 10^{-7}$  dangerous failures / hour

(background information is provided by Subset-088 Part 3, paragraph 12.5.2.4)

Note: The ETCS\_OB07 failure rate may be achieved by means of periodic self tests, during equipment operation. It is however possible to force the ETCS on-board to ignore the results of such tests, while passing over certain metal masses. In such cases, it is the responsibility of the infrastructure manager to prove that this disabling of the tests does not prejudice the achievement of the safety of the service.

ID	SPRM-449
old ID	SUBSET-091 V4.0.0 - ETCS_OB07
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11019 - ETCS_OB07 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>



Type	 Hazard
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**ETCS\_OB08**

Cross-talk of balise group

The overall THR for cross talk is






$1.0 * 10^{-9}$  dangerous failures / hour

In Subset-036 this requirement is distributed between ETCS on-board and trackside equipment. This yields the requirement for the ETCS on-board equipment to have a maximum unavailability of  $1.0 * 10^{-6}$  with regards to each of the following failure modes:

- The ETCS on-board equipment is more sensitive than expected.
- The ETCS on-board equipment is transmitting more Tele-powering field than specified.

See subset 036, Annex F for details of potential failure modes and possible solutions.

(background information is provided by Subset-088 Part 3, paragraph 12.5.2.5 and subset-036 paragraph 6.4.5.2)

ID	SPRM-450
old ID	SUBSET-091 V4.0.0 - ETCS_OB08
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11020 - ETCS_OB08 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard





**ETCS\_OB09**

Corruption of Loop message

The requirement for the non-trusted part of LTM-H4 is that the non-trusted ETCS on-board loop transmission equipment shall respect the definition of non-trusted given in paragraph 5.1.1.6. and the THR of

$1.0 * 10^{-11}$  dangerous failures / hour






(background information is provided by Subset-088 Part 3, paragraphs 12.5.2.1 & 12.5.2.3)

ID	SPRM-451
old ID	SUBSET-091 V4.0.0 - ETCS_OB09
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11021 - ETCS_OB09 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>

Type	 Hazard
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**ETCS\_TR01**

The hazard rate for the ETCS trackside system, less those parts forming part of the transmission system, shall be shown not to exceed  $THR_{Trackside} = 0.67 \cdot 10^{-9}$  dangerous failures/hour (background information is provided by Subset-088 Part 3, paragraph 12.4.1.1)

ID	SPRM-452
old ID	SUBSET-091 V4.0.0 - ETCS_TR01
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11022 - ETCS_TR01 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ETCS\_TR02**

Corruption of radio message

The requirement for the non-trusted part of TR-EUR-H4 (see Note) is that the non-trusted ETCS trackside radio transmission equipment shall respect the definition of non-trusted given in paragraph 5.1.1.6 and the THR of  $1.0 \cdot 10^{-11}$  dangerous failures / hour (background information is provided by Subset-088 Part 3, paragraph 12.5.1.1)

Note:

For trusted part, see paragraph 8.2.1.2.

ID	SPRM-453
old ID	SUBSET-091 V4.0.0 - ETCS_TR02
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11023 - ETCS_TR02 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






**ETCS\_TR03**

Corruption of balise group message

The requirement for the non-trusted part of EUB-H4 is that the non-trusted ETCS trackside balise transmission equipment shall respect the definition of non-trusted given in paragraph 5.1.1.6 with a THR of,

1.0 \* 10<sup>-11</sup> dangerous failures / hour

(background information is provided by Subset-088 Part 3, paragraph 12.5.2.1)

ID	SPRM-454
old ID	SUBSET-091 V4.0.0 - ETCS_TR03
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11024 - ETCS_TR03 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

#### ETCS\_TR04






Failure of a balise group being detectable

The rate of failure for a balise group with at least two balises to become undetectable (according to the definition in Subset-036), shall be shown not to exceed,

1.0 \* 10<sup>-9</sup> dangerous failures / hour

For an individual balise to be interoperable, it shall have an unavailability less than 2.0\*10<sup>-5</sup> with regards to hazard EUB-H1. This requirement has been derived in Subset-036 from the above requirement on a balise group of two balises.

(background information is provided by Subset-088 Part 3, paragraph 12.5.2.4 and Subset-036 paragraph 5.5.5.2)

ID	SPRM-455
old ID	SUBSET-091 V4.0.0 - ETCS_TR04
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11025 - ETCS_TR04 : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

#### ETCS\_TR05

Cross-talk of balise group

The overall THR for cross talk is






1.0 \* 10<sup>-9</sup> dangerous failures / hour

In Subset-036 this requirement is distributed between ETCS on-board and trackside equipment. This yields the requirement for the ETCS trackside equipment to meet the overall cross-talk THR of 10<sup>-9</sup> f/h given in paragraph 8.3.1.2 of Subset-088 Part 3 Annex A, considering the ETCS on-

board performance stated in ETCS\_OB08

A methodology for this is suggested in Subset-036 Annex F, although the actual accomplishment of the analysis is supplier and application specific.

(background information is provided by Subset-088 Part 3, paragraph 12.5.2.5 and Subset-036 paragraph 5.5.5.2)

ID	SPRM-456
old ID	SUBSET-091 V4.0.0 - ETCS_TR05
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11026 - ETCS_TR05 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

### ETCS\_TR06

TSR balise groups






When giving a Temporary Speed Restriction by means of unlinked balise groups, at least (Note 1) two balise groups (Note 2) shall be used to announce the TSR before the restricted area.

Note 1:

For operational reasons, it might be necessary to use more than two groups

Note 2:

With two balises in each group, see requirement ETCS\_TR07.

ID	SPRM-457
old ID	SUBSET-091 V4.0.0 - ETCS_TR06
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11027 - ETCS_TR06 : 466044 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

### ETCS\_TR07






Number of balises in each group

A balise group, which contains information that if it is missed could lead to a hazardous consequence, shall consist of a minimum of two balises.

This refers to a balise group that, for example, (1) gives a Temporary Speed Restriction, (2) gives the start of a linking chain, i.e. met in a Start of Mission or in a change from Level 0 to

Level 1/2, (3) constitutes a border balise group giving more restrictive National Values, (4) gives Level Crossing information or (5) gives Virtual Balise Cover order.

(background information is provided by Subset-088 Part 3, Annex A, paragraph 3.3.1.1)

ID	SPRM-458
old ID	SUBSET-091 V4.0.0 - ETCS_TR07
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11028 - ETCS_TR07 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

### ETCS\_TR08






Corruption of Loop message

The requirement for the non-trusted part of EUL-H4 is that the non-trusted ETCS trackside loop transmission equipment shall respect the definition of non-trusted given in paragraph 5.1.1.6.

with a THR of,

1.0 \* 10<sup>-11</sup> dangerous failures / hour

(background information is provided by Subset-088 Part 3, paragraph 12.5.2.1 & 12.5.2.3)

ID	SPRM-459
old ID	SUBSET-091 V4.0.0 - ETCS_TR08
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11029 - ETCS_TR08 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

### EXT\_SR01

The preparation of the ETCS Trackside Data is not part of ETCS, but shall be of a quality that is appropriate to the required safety level (see Note).






(background information is provided by Subset-088 Part 3, paragraph 12.6.2.1)

Note:

These requirements demand that the process being adopted shall be of a quality level that is appropriate to the required safety level. This should be interpreted to mean that

- the criticality of the data need to be determined from an overall railway system safety perspective

- the process in question must be examined in detail to identify where there are potential threats to the accuracy of the process and that measures are put in place to minimise these threats to the required safety level, taking into account the functional properties of ETCS and the safety integrity requirements specified in the present document

ID	SPRM-460
old ID	SUBSET-091 V4.0.0 - EXT_SR01
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11030 - EXT_SR01 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard






### EXT\_SR02

The complete ETCS Trackside System Deployment process is not part of ETCS, but shall be of a quality that is appropriate to the required safety level (see Note). (background information is provided by Subset-088 Part 3, paragraph 12.6.4.1)

Note:

These requirements demand that the process being adopted shall be of a quality level that is appropriate to the required safety level. This should be interpreted to mean that

- the criticality of the data need to be determined from an overall railway system safety perspective
- the process in question must be examined in detail to identify where there are potential threats to the accuracy of the process and that measures are put in place to minimise these threats to the required safety level, taking into account the functional properties of ETCS and the safety integrity requirements specified in the present document

ID	SPRM-461
old ID	SUBSET-091 V4.0.0 - EXT_SR02
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11031 - EXT_SR02 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

### EXT\_SR03






The preparation of the ETCS On-board Data is not part of ETCS, but shall be of a quality that is

appropriate to the required safety level (see Note). (background information is provided by Subset-088 Part 3, paragraph 12.6.3.1)

Note:






These requirements demand that the process being adopted shall be of a quality level that is appropriate to the required safety level. This should be interpreted to mean that

- the criticality of the data need to be determined from an overall railway system safety perspective
- the process in question must be examined in detail to identify where there are potential threats to the accuracy of the process and that measures are put in place to minimise these threats to the required safety level, taking into account the functional properties of ETCS and the safety integrity requirements specified in the present document

ID	SPRM-462
old ID	SUBSET-091 V4.0.0 - EXT_SR03
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11032 - EXT_SR03 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

#### EXT\_SR04

Infrastructure installation and operational circumstances need to be considered as stated in chapter 10.

ID	SPRM-463
old ID	SUBSET-091 V4.0.0 - EXT_SR04
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11033 - EXT_SR04 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

#### EXT\_SR05






The complete ETCS On-board System Deployment process is not part of ETCS (except what is defined in ETCS\_OB02), but shall be of a quality that is appropriate to the required safety level (see Note).

(background information is provided by Subset-088 Part 3, paragraph 12.6.5.1)

**Note:**

These requirements demand that the process being adopted shall be of a quality level that is appropriate to the required safety level. This should be interpreted to mean that

- the criticality of the data need to be determined from an overall railway system safety perspective
- the process in question must be examined in detail to identify where there are potential threats to the accuracy of the process and that measures are put in place to minimise these threats to the required safety level, taking into account the functional properties of ETCS and the safety integrity requirements specified in the present document

ID	SPRM-464
old ID	SUBSET-091 V4.0.0 - EXT_SR05
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11034 - EXT_SR05 : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard








**EXT\_SR06**

Overall Consist Length information shall be provided by external source with at least SIL2 quality.

It is application projects responsibility to evaluate if the previous requirement is sufficient to comply with the required safety level for operation in SM mode and, if not, apply mitigation measures such as:

- Trackside specific measures based on other external entities (e.g. Axle Counter)
- Additional independent source of information needed by On-board to determine Safe Consist Length (e.g. the number of axles), in case the RINF requires Safe Consist Length information with SIL4 to enter the line.

(background information is provided by Subset-088 Part 3, chapter 12.6.6)






ID	SPRM-465
old ID	SUBSET-091 V4.0.0 - EXT_SR06
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11035 - EXT_SR06 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**EXT\_SR07**

Confirmed train length sent in position report shall be of a quality corresponding SIL4.

This can be reached, for example:






- when Train Integrity and Train Length are acquired fully independently, or
- with driver validation of Train Length or additional information of Train Length from driver/shunter.

ID	SPRM-466
old ID	SUBSET-091 V4.0.0 - EXT_SR07
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11036 - EXT_SR07 : 487813 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

**EXT\_SR08**

Train Integrity information shall be provided by external source with at least SIL2 quality.

(background information is provided by Subset-120 chapter 3.5.3)






ID	SPRM-467
old ID	SUBSET-091 V4.0.0 - EXT_SR08
Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11037 - EXT_SR08 : 459260 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Hyperlinks	- <a href="https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf">https://www.era.europa.eu/system/files/2023-09/index027_-_SUBSET-091_v400.pdf</a>
Type	 Hazard

#### SPRM-468 - Traceability not perform for SUBSET-091 hazards

The traceability between these hazards and the ones from §1 shall be realised.






#### [B.0] Other category B event types

Other category B event falling within the B.0 sub-categories for which detailed information is not (yet) available.

ID	SPRM-469
old ID	CSM-ALSP B.0
Status	 Deleted
Linked Work Items	is copied from :   SPPRAMSS-6979 - [B.0] Other category B event types : 479962 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Type	 Hazard

#### [B.0.1] Fire in proximity of rail infrastructure





Any occasion in which a fire is taking place in proximity of rail infrastructure, affecting the integrity of the infrastructure or the operations.

ID	SPRM-470
old ID	CSM-ALSP B.0.1
Status	 Deleted
Linked Work Items	is copied from :   SPPRAMSS-6980 - [B.0.1] Fire in proximity of rail infrastructure : 466978 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Type	 Hazard

#### [B.0.2] Unauthorised presence of staff/employees on railway system






Any occasion in which the unauthorised presence of staff/employees (i.e. not in accordance with the applicable requirements) is detected. This also includes sub-contractor staff.

ID	SPRM-471
old ID	CSM-ALSP B.0.2
Status	 Deleted

Linked Work Items	is copied from :   SPPRAMSS-6981 - [B.0.2] Unauthorised presence of staff/employees on railway system : 488742 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Type	 Hazard






#### [B.0.3] Unauthorised presence of other third parties on the railway system

Any occasion in which the unauthorised presence of third parties on the railway system (i.e. not in accordance with the applicable requirements) is detected.

ID	SPRM-472
old ID	CSM-ALSP B.0.3
Status	 Deleted
Linked Work Items	is copied from :   SPPRAMSS-6982 - [B.0.3] Unauthorised presence of other third parties on the railway system : 485707 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Type	 Hazard






#### [B.0.4] Improper or incautious use of authorised passages between platforms in the stations

Any occasion in which the improper or incautious use by persons of authorised passages between platforms in the stations is detected

ID	SPRM-473
old ID	CSM-ALSP B.0.4
Status	 Deleted
Linked Work Items	is copied from :   SPPRAMSS-6983 - [B.0.4] Improper or incautious use of authorised passages between platforms in the stations : 466978 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Type	 Hazard

#### [B.0.5] Dangerous goods incidents not related to another type B event





Any incident involving dangerous goods to be reported in accordance with section 1.8.5 of 'RID' (as referred to in Annex II.1 to Directive 2008/68/EC, as amended) and not covered by another type B event.

ID	SPRM-474
old ID	CSM-ALSP B.0.5 RSSB CHAMOIS 7
Status	 Deleted
Linked Work Items	is copied from :   SPPRAMSS-6984 - [B.0.5] Dangerous goods incidents not related to another type B event : 488742 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Type	 Hazard

#### [B.0.0] Other un-coded category B event types


Any other category B event type not covered by any of the category or sub-categories coded above. A reporting of information in accordance with section 3.3 of Appendix A - Part C shall apply.







ID	SPRM-475
old ID	CSM-ALSP B.0.0
Status	 Deleted

Linked Work Items	is copied from :   SPPRAMSS-6985 - [B.0.0] Other un-coded category B event types : 478021 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Type	 Hazard

### Undue movement of a point nearby person


Undue movement of a point due to signaling failure while a person is nearby.

Note : "switch" is used by CSM-ALSP. "point" is used in EUROPE (e.g. EULYNX Glossary Eu.Doc.9/ ERA Subset 023 / use "point", see SPLI-985 - POINT) and in SP  SPLI-985 - POINT.

ID	SPRM-476
Status	 Deleted
Linked Work Items	relates to :  SPPRAMSS-8373 - Human Injury is copied from :   SPPRAMSS-7520 - Undue movement of a point nearby person : 481524 has parent :  SPRM-322 - ETCS SUBSET-091 Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard










## 4 RSSB Hazards

### Detailed Hazards coming from RSSB CHAMOIS list

In the following are reported more detailed Hazards coming from RSSB CHAMOIS list. [SPRM-478,  Text ]

#### RSSB\_2.03.05 - Wrong side signalling failure - Track circuit fails to detect train






Wrong side signalling failure due to Track circuit fails to detect train

ID	SPRM-479
old ID	RSSB_2.03.05
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11072 - RSSB_2.03.05 - Wrong side signalling failure - Track circuit fails to detect train : 481524 has parent :  SPRM-477 - RSSB Hazards _ is assessed by :  SPRM-1134 - Early wheel passing information from Wheel _ is assessed by :  SPRM-1135 - Incorrect wheel passing information from Wheel _ is assessed by :  SPRM-1982 - Late wheel passing information from Wheel (2)
Rational	Explicit Risk Estimation based on TSI CCS. Trackside Assets CS (Level 4)
Type	 Hazard

#### RSSB\_2.03.04 - Wrong side signalling failure - Signal returns to danger as train approaches







Wrong side signalling failure due to Signal returns to danger as train approaches

ID	SPRM-480
old ID	RSSB_2.03.04

Status	 Open
Linked Work Items	is copied from :   SPPRAMSS-11071 - RSSB_2.03.04 - Wrong side signalling failure - Signal returns to danger as train approaches : 487813 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_2.03.03 - Wrong side signalling failure - Signal displays insufficiently restrictive aspect

Wrong side signalling failure due to Signal displays insufficiently restrictive aspect

ID	SPRM-481
old ID	RSSB_2.03.03
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11070 - RSSB_2.03.03 - Wrong side signalling failure - Signal displays insufficiently restrictive aspect : 481524 has parent :  SPRM-477 - RSSB Hazards
Rational	Explicit Risk Estimation based on TSI CCS. TrafficCS (Level 4) and/or Transversal
Type	 Hazard







### RSSB\_2.03.02 - Wrong side signalling failure - Neighbouring external electrical / electronic systems cause EMI / EMC issues in railway system

Wrong side signalling failure due to Neighbouring external electrical / electronic systems cause EMI / EMC issues in railway system

ID	SPRM-482
old ID	RSSB_2.03.02
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11069 - RSSB_2.03.02 - Wrong side signalling failure - Neighbouring external electrical / electronic systems cause EMI / EMC issues in railway system : 487801 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_2.03.01 - Wrong side signalling failure - Inadequate signal overlap

Wrong side signalling failure due to Inadequate signal overlap

ID	SPRM-483
old ID	RSSB_2.03.01
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11068 - RSSB_2.03.01 - Wrong side signalling failure - Inadequate signal overlap : 481524 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_2.02.05 - Train runaway - Runaway train due to vehicle defect**

Train runaway due to Runaway train due to vehicle defect

ID	SPRM-484
old ID	RSSB_2.02.05
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11067 - RSSB_2.02.05 - Train runaway - Runaway train due to vehicle defect : 487801 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_2.02.02 - Train runaway - Runaway train due to coupling failure**

Train runaway due to Runaway train due to coupling failure

ID	SPRM-485
old ID	RSSB_2.02.02
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11066 - RSSB_2.02.02 - Train runaway - Runaway train due to coupling failure : 487801 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_2.02.01 - Train runaway - Runaway train due to brake failure**

Train runaway due to Runaway train due to brake failure

ID	SPRM-486
old ID	RSSB_2.02.01
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11065 - RSSB_2.02.01 - Train runaway - Runaway train due to brake failure : 437132 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_2.01.19 - Train exceeds limit of movement authority (including SPADs) - Traction control failure

Train exceeds limit of movement authority (including SPADs) due to Traction control failure

ID	SPRM-487
old ID	RSSB_2.01.19
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11064 - RSSB_2.01.19 - Train exceeds limit of movement authority (including SPADs) - Traction control failure : 487801 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_2.01.18 - Train exceeds limit of movement authority (including SPADs) - Signal equipment operating error

Train exceeds limit of movement authority (including SPADs) due to Signal equipment operating error

ID	SPRM-488
old ID	RSSB_2.01.18
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11063 - RSSB_2.01.18 - Train exceeds limit of movement authority (including SPADs) - Signal equipment operating error : 481524 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_2.01.01 - Train exceeds limit of movement authority (including SPADs) - Brake failure






Train exceeds limit of movement authority (including SPADs) due to Brake failure

ID	SPRM-489
old ID	RSSB_2.01.01
Status	 Open
Linked Work Items	relates to :  SPPRAMSS-5758 - [A1.1] Collision of train with a train/rail vehicle is copied from :   SPPRAMSS-11062 - RSSB_2.01.01 - Train exceeds limit of movement authority (including SPADs) - Brake failure : 481524 has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_3.12.05 - Wrong Side Signalling Failure - Track circuit fails to detect train







Wrong Side Signalling Failure due to Track circuit fails to detect train

ID	SPRM-625
old ID	RSSB_3.12.05
Status	 Open

Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







#### **RSSB\_3.12.04 - Wrong Side Signalling Failure - Signal returns to danger as train approaches**

Wrong Side Signalling Failure due to Signal returns to danger as train approaches

ID	SPRM-626
old ID	RSSB_3.12.04
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







#### **RSSB\_3.12.03 - Wrong Side Signalling Failure - Signal displays insufficiently restrictive aspect**

Wrong Side Signalling Failure due to Signal displays insufficiently restrictive aspect

ID	SPRM-627
old ID	RSSB_3.12.03
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### **RSSB\_3.12.02 - Wrong Side Signalling Failure - Neighbouring external electrical/electronic systems cause EMI/EMC issues in railway system**

Wrong Side Signalling Failure due to Neighbouring external electrical/electronic systems cause EMI/EMC issues in railway system







ID	SPRM-628
old ID	RSSB_3.12.02
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### **RSSB\_3.12.01 - Wrong Side Signalling Failure - Inadequate signal overlap**

Wrong Side Signalling Failure due to Inadequate signal overlap







ID	SPRM-629
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old ID	RSSB_3.12.01
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_3.10.05 - Train runaway - Runaway train due to vehicle defect

Train runaway due to Runaway train due to vehicle defect

ID	SPRM-630
old ID	RSSB_3.10.05
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_3.10.02 - Train runaway - Runaway train due to coupling failure

Train runaway due to Runaway train due to coupling failure

ID	SPRM-631
old ID	RSSB_3.10.02
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_3.10.01 - Train runaway - Runaway train due to brake failure

Train runaway due to Runaway train due to brake failure

ID	SPRM-632
old ID	RSSB_3.10.01
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### RSSB\_3.09.19 - Train exceeds limit of movement authority (including SPADs) - Traction control failure

Train exceeds limit of movement authority (including SPADs) due to Traction control failure

ID	SPRM-633
old ID	RSSB_3.09.19
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### **RSSB\_3.09.18 - Train exceeds limit of movement authority (including SPADs) - Signal equipment operating error**

Train exceeds limit of movement authority (including SPADs) due to Signal equipment operating error

ID	SPRM-634
old ID	RSSB_3.09.18
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard






### **RSSB\_3.09.01 - Train exceeds limit of movement authority (including SPADs) - Brake failure**

Train exceeds limit of movement authority (including SPADs) due to Brake failure

ID	SPRM-635
old ID	RSSB_3.09.01
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### **RSSB\_3.08.06 - Track formation failures (including under bridge and embankment failures) - Structural damage due to earthquake**







Track formation failures (including under bridge and embankment failures) due to Structural damage due to earthquake

ID	SPRM-636
old ID	RSSB_3.08.06
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards

Type	 Hazard
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### **RSSB\_3.08.05 - Track formation failures (including under bridge and embankment failures) - Structural collapse due to scour and water action**

Track formation failures (including under bridge and embankment failures) due to Structural collapse due to scour and water action

ID	SPRM-637
old ID	RSSB_3.08.05
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### **RSSB\_3.08.04 - Track formation failures (including under bridge and embankment failures) - Rail bridge structural failure (including bridge strikes)**

Track formation failures (including under bridge and embankment failures) due to Rail bridge structural failure (including bridge strikes)

ID	SPRM-638
old ID	RSSB_3.08.04
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### **RSSB\_3.08.03 - Track formation failures (including under bridge and embankment failures) - Failure of embankment integrity**

Track formation failures (including under bridge and embankment failures) due to Failure of embankment integrity

ID	SPRM-639
old ID	RSSB_3.08.03
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### **RSSB\_3.08.02 - Track formation failures (including under bridge and embankment failures) - Drainage culvert/pipework collapse**

Track formation failures (including under bridge and embankment failures) due to Drainage culvert/pipework collapse

ID	SPRM-640
old ID	RSSB_3.08.02
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### **RSSB\_3.08.01 - Track formation failures (including under bridge and embankment failures) - Collapse of bridge or culvert**

Track formation failures (including under bridge and embankment failures) due to Collapse of bridge or culvert

ID	SPRM-641
old ID	RSSB_3.08.01
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### **RSSB\_3.07.10 - Track fault / failure - Vertical misalignment / track bed insecure**

Track fault / failure due to Vertical misalignment / track bed insecure

ID	SPRM-642
old ID	RSSB_3.07.10
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







### **RSSB\_3.07.09 - Track fault / failure - Track twist**

Track fault / failure due to Track twist

ID	SPRM-643
old ID	RSSB_3.07.09
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.07.08 - Track fault / failure - Track gauge spread**

Track fault / failure due to Track gauge spread

ID	SPRM-644
old ID	RSSB_3.07.08
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.07.07 - Track fault / failure - Track cyclic top**

Track fault / failure due to Track cyclic top

ID	SPRM-645
old ID	RSSB_3.07.07
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.07.06 - Track fault / failure - Buckled rail / poor track geometry / track twist**

Track fault / failure due to Buckled rail / poor track geometry / track twist

ID	SPRM-646
old ID	RSSB_3.07.06
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.07.04 - Track fault / failure - Failure of track integrity**

Track fault / failure due to Failure of track integrity

ID	SPRM-647
old ID	RSSB_3.07.04
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.07.03 - Track fault / failure - Buckled rail / poor track geometry**

Track fault / failure due to Buckled rail / poor track geometry

ID	SPRM-648
old ID	RSSB_3.07.03
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.07.02 - Track fault / failure - Broken rail**

Track fault / failure due to Broken rail

ID	SPRM-649
old ID	RSSB_3.07.02
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.07.01 - Track fault / failure - Broken fishplate between rails**

Track fault / failure due to Broken fishplate between rails

ID	SPRM-650
old ID	RSSB_3.07.01
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.06.09 - Rolling Stock fault / failure - Twisted underframe / bogie twist**

Rolling Stock fault / failure due to Twisted underframe / bogie twist

ID	SPRM-651
old ID	RSSB_3.06.09
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.06.08 - Rolling Stock fault / failure - Suspension system / bogie failure**

Rolling Stock fault / failure due to Suspension system / bogie failure

ID	SPRM-652
old ID	RSSB_3.06.08
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.06.07 - Rolling Stock fault / failure - Seized axle box bearing / hot axle box**

Rolling Stock fault / failure due to Seized axle box bearing / hot axle box

ID	SPRM-653
old ID	RSSB_3.06.07
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.06.05 - Rolling Stock fault / failure - Rail vehicle wheel failure**

Rolling Stock fault / failure due to Rail vehicle wheel failure

ID	SPRM-654
old ID	RSSB_3.06.05
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.06.03 - Rolling Stock fault / failure - Coupling failure**

Rolling Stock fault / failure due to Coupling failure

ID	SPRM-655
old ID	RSSB_3.06.03
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.06.02 - Rolling Stock fault / failure - Buffer locking**

Rolling Stock fault / failure due to Buffer locking

ID	SPRM-656
old ID	RSSB_3.06.02
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.06.01 - Rolling Stock fault / failure - Axle failure**

Rolling Stock fault / failure due to Axle failure

ID	SPRM-657
old ID	RSSB_3.06.01
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB\_3.05.02 - Large obstruction on track - Infrastructure collapse**

Large obstruction on track due to Infrastructure collapse

ID	SPRM-658
old ID	RSSB_3.05.02
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

**RSSB\_3.02.05 - Failure of switches & crossings - Points out of gauge**







Failure of switches &amp; crossings due to Points out of gauge

ID	SPRM-659
old ID	RSSB_3.02.05
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard









**RSSB 3.02.04 - Failure of switches & crossings - Points move under train**

Failure of switches &amp; crossings due to Points move under train

ID	SPRM-660
old ID	RSSB_3.02.04
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard







**RSSB 3.02.03 - Failure of switches & crossings - Points in the wrong position and not detected**

Failure of switches &amp; crossings due to Points in the wrong position and not detected

ID	SPRM-661
old ID	RSSB_3.02.03
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





**RSSB 3.02.01 - Failure of switches & crossings - Defective switch and crossing**

Failure of switches &amp; crossings due to Defective switch and crossing

ID	SPRM-662
old ID	RSSB_3.02.01
Status	 Open
Linked Work Items	relates to :  SPRM-78 - [A2.1] Derailment of train relates to :  SPRM-79 - [A2.2] Derailment of one or more rail vehicles relates to :  SPRM-80 - [A2.0] Other derailment type has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





**RSSB 4.02.01 - Train rolls back and collides with buffer stop - Brake failure leading to buffer stop strike**

Train rolls back and collides with buffer stop due to Brake failure leading to buffer stop strike

ID	SPRM-701
old ID	RSSB_4.02.01
Status	 Open
Linked Work Items	relates to :  SPRM-73 - [A1.2] Collision of train with obstacle within the clearance gauge has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





**RSSB\_4.03.01 - Train runaway - Runaway train due to brake failure**

Train runaway due to Runaway train due to brake failure

ID	SPRM-702
old ID	RSSB_4.03.01
Status	 Open
Linked Work Items	relates to :  SPRM-73 - [A1.2] Collision of train with obstacle within the clearance gauge has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





**RSSB\_4.03.02 - Train runaway - Runaway train due to coupling failure**

Train runaway due to Runaway train due to coupling failure

ID	SPRM-703
old ID	RSSB_4.03.02
Status	 Open
Linked Work Items	relates to :  SPRM-73 - [A1.2] Collision of train with obstacle within the clearance gauge has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





**RSSB\_4.03.05 - Train runaway - Runaway train due to vehicle defect**

Train runaway due to Runaway train due to vehicle defect

ID	SPRM-704
old ID	RSSB_4.03.05
Status	 Open
Linked Work Items	relates to :  SPRM-73 - [A1.2] Collision of train with obstacle within the clearance gauge has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





**RSSB\_4.04.01 - Uncontrolled movement of train towards buffer stop - Brake failure leading to buffer stop strike**

Uncontrolled movement of train towards buffer stop due to Brake failure leading to buffer stop strike

ID	SPRM-705
old ID	RSSB_4.04.01
Status	 Open
Linked Work Items	relates to :  SPRM-73 - [A1.2] Collision of train with obstacle within the clearance gauge has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





**RSSB\_4.04.02 - Uncontrolled movement of train towards buffer stop - Defective train control equipment leading to buffer stop strike**

Uncontrolled movement of train towards buffer stop due to Defective train control equipment leading to buffer stop strike

ID	SPRM-706
old ID	RSSB_4.04.02
Status	 Open
Linked Work Items	relates to :  SPRM-73 - [A1.2] Collision of train with obstacle within the clearance gauge has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_4.04.03 - Uncontrolled movement of train towards buffer stop - Driver error when propelling leading to buffer stop strike**

Uncontrolled movement of train towards buffer stop due to Driver error when propelling leading to buffer stop strike

ID	SPRM-707
old ID	RSSB_4.04.03
Status	 Open
Linked Work Items	relates to :  SPRM-73 - [A1.2] Collision of train with obstacle within the clearance gauge has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_5.02.01 - Level crossing equipment failures - Failure to detect approaching train**

Level crossing equipment failures due to Failure to detect approaching train

ID	SPRM-728
old ID	RSSB_5.02.01
Status	 Open
Linked Work Items	relates to :  SPRM-84 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_5.02.02 - Level crossing equipment failures - Lights / barriers fail to operate**

Level crossing equipment failures due to Lights / barriers fail to operate

ID	SPRM-729
old ID	RSSB_5.02.02
Status	 Open
Linked Work Items	relates to :  SPRM-84 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_5.02.03 - Level crossing equipment failures - Obstacle detection equipment failure**

Level crossing equipment failures due to Obstacle detection equipment failure

ID	SPRM-730
old ID	RSSB_5.02.03
Status	 Open
Linked Work Items	relates to :  SPRM-84 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_5.04.02 - Train driver error at level crossing (excluding SPAD) - Train overspeeding at PSR / TSR / ESR including on approach to locally monitored level crossings**

Train driver error at level crossing (excluding SPAD) due to Train overspeeding at PSR / TSR / ESR including on approach to locally monitored level crossings

ID	SPRM-731
old ID	RSSB_5.04.02
Status	 Open
Linked Work Items	relates to :  SPRM-84 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_5.05.01 - Train exceeds limit of movement authority (including SPADs) - Brake failure**

Train exceeds limit of movement authority (including SPADs) due to Brake failure

ID	SPRM-732
old ID	RSSB_5.05.01
Status	 Open
Linked Work Items	relates to :  SPRM-84 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_5.05.18 - Train exceeds limit of movement authority (including SPADs) - Signal equipment operating error**

Train exceeds limit of movement authority (including SPADs) due to Signal equipment operating error

ID	SPRM-733
old ID	RSSB_5.05.18
Status	 Open
Linked Work Items	relates to :  SPRM-84 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_5.05.19 - Train exceeds limit of movement authority (including SPADs) - Traction control failure**

Train exceeds limit of movement authority (including SPADs) due to Traction control failure

ID	SPRM-734
old ID	RSSB_5.05.19
Status	 Open
Linked Work Items	relates to :  SPRM-84 - [A3.1.2] Level Crossing Accident involving a train and crossing vehicles has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_6.01.01 - Contact with traction supply - Electric shock due to earthing fault**

Contact with traction supply due to Electric shock due to earthing fault

ID	SPRM-777
old ID	RSSB_6.01.01
Status	 Open
Linked Work Items	relates to :  SPRM-98 - [A0.1] Electric shock has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





#### **RSSB\_6.01.02 - Contact with traction supply - Electric shock due to faulty equipment**

Contact with traction supply due to Electric shock due to faulty equipment

ID	SPRM-778
old ID	RSSB_6.01.02
Status	 Open
Linked Work Items	relates to :  SPRM-98 - [A0.1] Electric shock has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### **RSSB\_6.01.03 - Contact with traction supply - Electric shock due to incorrect isolation**




Contact with traction supply due to Electric shock due to incorrect isolation

ID	SPRM-779
old ID	RSSB_6.01.03
Status	 Open
Linked Work Items	relates to :  SPRM-98 - [A0.1] Electric shock has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### **RSSB\_6.02.01 - Contact with non-traction supply - Electric shock due to earthing fault**





Contact with non-traction supply due to Electric shock due to earthing fault

ID	SPRM-780
old ID	RSSB_6.02.01
Status	 Open

Linked Work Items	relates to :  SPRM-98 - [A0.1] Electric shock has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard





### RSSB\_6.02.02 - Contact with non-traction supply - Electric shock due to faulty equipment

Contact with non-traction supply due to Electric shock due to faulty equipment

ID	SPRM-781
old ID	RSSB_6.02.02
Status	 Open
Linked Work Items	relates to :  SPRM-98 - [A0.1] Electric shock has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard









### RSSB\_6.02.03 - Contact with non-traction supply - Electric shock due to incorrect isolation

Contact with non-traction supply due to Electric shock due to incorrect isolation

ID	SPRM-782
old ID	RSSB_6.02.03
Status	 Open
Linked Work Items	relates to :  SPRM-98 - [A0.1] Electric shock has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_9.01.02 - Fire - Electrical equipment fault








Fire due to Electrical equipment fault

ID	SPRM-786
old ID	RSSB_9.01.02
Status	 Open
Linked Work Items	relates to :  SPRM-92 - [A5] Fire (or explosion) in rolling stock relates to :  SPRM-93 - [A5.1] Fire (or explosion) in a train relates to :  SPRM-94 - [A5.2] Fire (or explosion) involving one or more rail vehicles relates to :  SPRM-95 - [A5.0] Others fire (or explosion) in rolling stock relates to :  SPRM-96 - Fire (or explosion) in other location has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_9.01.03 - Fire - Lineside fire (e.g. cable fire, fires neighbouring railway)









Fire due to Lineside fire (e.g. cable fire, fires neighbouring railway)

ID	SPRM-787
old ID	RSSB_9.01.03
Status	 Open

Linked Work Items	relates to :  SPRM-92 - [A5] Fire (or explosion) in rolling stock relates to :  SPRM-93 - [A5.1] Fire (or explosion) in a train relates to :  SPRM-94 - [A5.2] Fire (or explosion) involving one or more rail vehicles relates to :  SPRM-95 - [A5.0] Others fire (or explosion) in rolling stock relates to :  SPRM-96 - Fire (or explosion) in other location has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard









#### RSSB\_9.01.06 - Fire - Traction current collection / return fault

Fire due to Traction current collection / return fault

ID	SPRM-788
old ID	RSSB_9.01.06
Status	 Open
Linked Work Items	relates to :  SPRM-92 - [A5] Fire (or explosion) in rolling stock relates to :  SPRM-93 - [A5.1] Fire (or explosion) in a train relates to :  SPRM-94 - [A5.2] Fire (or explosion) involving one or more rail vehicles relates to :  SPRM-95 - [A5.0] Others fire (or explosion) in rolling stock relates to :  SPRM-96 - Fire (or explosion) in other location has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### RSSB\_9.01.07 - Fire - Traction motor fault








Fire due to Traction motor fault

ID	SPRM-789
old ID	RSSB_9.01.07
Status	 Open
Linked Work Items	relates to :  SPRM-92 - [A5] Fire (or explosion) in rolling stock relates to :  SPRM-93 - [A5.1] Fire (or explosion) in a train relates to :  SPRM-94 - [A5.2] Fire (or explosion) involving one or more rail vehicles relates to :  SPRM-95 - [A5.0] Others fire (or explosion) in rolling stock relates to :  SPRM-96 - Fire (or explosion) in other location has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### RSSB\_9.01.08 - Fire - Brake failure - train brakes sparking or dragging









Fire due to Brake failure - train brakes sparking or dragging

ID	SPRM-790
old ID	RSSB_9.01.08
Status	 Open

Linked Work Items	relates to :  SPRM-92 - [A5] Fire (or explosion) in rolling stock relates to :  SPRM-93 - [A5.1] Fire (or explosion) in a train relates to :  SPRM-94 - [A5.2] Fire (or explosion) involving one or more rail vehicles relates to :  SPRM-95 - [A5.0] Others fire (or explosion) in rolling stock relates to :  SPRM-96 - Fire (or explosion) in other location has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard









### RSSB\_9.01.09 - Fire - Train engine fire (including exhaust fire and oil / diesel leaks)

Fire due to Train engine fire (including exhaust fire and oil / diesel leaks)

ID	SPRM-791
old ID	RSSB_9.01.09
Status	 Open
Linked Work Items	relates to :  SPRM-92 - [A5] Fire (or explosion) in rolling stock relates to :  SPRM-93 - [A5.1] Fire (or explosion) in a train relates to :  SPRM-94 - [A5.2] Fire (or explosion) involving one or more rail vehicles relates to :  SPRM-95 - [A5.0] Others fire (or explosion) in rolling stock relates to :  SPRM-96 - Fire (or explosion) in other location has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




### RSSB\_9.01.11 - Fire - Train mechanical equipment fault

Fire due to Train mechanical equipment fault

ID	SPRM-792
old ID	RSSB_9.01.11
Status	 Open
Linked Work Items	relates to :  SPRM-92 - [A5] Fire (or explosion) in rolling stock relates to :  SPRM-93 - [A5.1] Fire (or explosion) in a train relates to :  SPRM-94 - [A5.2] Fire (or explosion) involving one or more rail vehicles relates to :  SPRM-95 - [A5.0] Others fire (or explosion) in rolling stock relates to :  SPRM-96 - Fire (or explosion) in other location has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_11.01.01 - Earthworks failure - Embankment failure




Earthworks failure due to Embankment failure

ID	SPRM-801
old ID	RSSB_11.01.01
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard






**RSSB\_11.01.02 - Earthworks failure - Soil cutting failure**

Earthworks failure due to Soil cutting failure

ID	SPRM-802
old ID	RSSB_11.01.02
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




**RSSB\_11.01.03 - Earthworks failure - Rock cutting failure**

Earthworks failure due to Rock cutting failure

ID	SPRM-803
old ID	RSSB_11.01.03
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




**RSSB\_11.02.01 - Structure failure - Bridge strike**

Structure failure due to Bridge strike

ID	SPRM-804
old ID	RSSB_11.02.01
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

**RSSB\_11.02.02 - Structure failure - Culvert failure**

Structure failure due to Culvert failure

ID	SPRM-805
old ID	RSSB_11.02.02
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

**RSSB\_11.02.03 - Structure failure - Failure of building / structure**


Structure failure due to Failure of building / structure

ID	SPRM-806
old ID	RSSB_11.02.03
Status	 Open

Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### RSSB\_11.02.04 - Structure failure - Gauge infringement

Structure failure due to Gauge infringement

ID	SPRM-807
old ID	RSSB_11.02.04
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### RSSB\_11.02.05 - Structure failure - Overline bridge failure

Structure failure due to Overline bridge failure

ID	SPRM-808
old ID	RSSB_11.02.05
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### RSSB\_11.02.06 - Structure failure - Rail bridge failure

Structure failure due to Rail bridge failure

ID	SPRM-809
old ID	RSSB_11.02.06
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### RSSB\_11.02.07 - Structure failure - Retaining wall failure

Structure failure due to Retaining wall failure

ID	SPRM-810
old ID	RSSB_11.02.07
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard



#### RSSB\_11.02.08 - Structure failure - Tunnel failure

Structure failure due to Tunnel failure

ID	SPRM-811
old ID	RSSB_11.02.08
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




### RSSB\_11.03.01 - Track failure - Broken fishplate

Track failure due to Broken fishplate

ID	SPRM-812
old ID	RSSB_11.03.01
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




### RSSB\_11.03.02 - Track failure - Broken rail

Track failure due to Broken rail

ID	SPRM-813
old ID	RSSB_11.03.02
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard


### RSSB\_11.03.03 - Track failure - Gauge fault

Track failure due to Gauge fault

ID	SPRM-814
old ID	RSSB_11.03.03
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_11.03.04 - Track failure - Buckled rail / poor track geometry




Track failure due to Buckled rail / poor track geometry

ID	SPRM-815
old ID	RSSB_11.03.04
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards

Type	 Hazard
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#### RSSB\_11.03.05 - Track failure - Rail head contamination / adhesion failure

Track failure due to Rail head contamination / adhesion failure

ID	SPRM-816
old ID	RSSB_11.03.05
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### RSSB\_11.03.06 - Track failure - Switches and crossings fault

Track failure due to Switches and crossings fault

ID	SPRM-817
old ID	RSSB_11.03.06
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### RSSB\_11.03.07 - Track failure - Track geometry fault

Track failure due to Track geometry fault

ID	SPRM-818
old ID	RSSB_11.03.07
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### RSSB\_11.04.01 - Signalling system failure - Failure of communication systems




Signalling system failure due to Failure of communication systems

ID	SPRM-819
old ID	RSSB_11.04.01
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### RSSB\_11.04.02 - Signalling system failure - Failure of train protection / detection systems




Signalling system failure due to Failure of train protection / detection systems

ID	SPRM-820
old ID	RSSB_11.04.02

Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.04.03 - Signalling system failure - Failure of ERTMS / ETCS system**

Signalling system failure due to Failure of ERTMS / ETCS system

ID	SPRM-821
old ID	RSSB_11.04.03
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.04.04 - Signalling system failure - ERTMS / ETCS system incorrectly set up (e.g. design, installation, start-up, operation, maintenance, reset)**

Signalling system failure due to ERTMS / ETCS system incorrectly set up (e.g. design, installation, start-up, operation, maintenance, reset)

ID	SPRM-822
old ID	RSSB_11.04.04
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.04.05 - Signalling system failure - Points failure**

Signalling system failure due to Points failure

ID	SPRM-823
old ID	RSSB_11.04.05
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard



#### **RSSB\_11.04.06 - Signalling system failure - Cybersecurity attack**

Signalling system failure due to Cybersecurity attack

ID	SPRM-824
old ID	RSSB_11.04.06
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




**RSSB\_11.04.07 - Signalling system failure - Extreme weather**

Signalling system failure due to Extreme weather

ID	SPRM-825
old ID	RSSB_11.04.07
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




**RSSB\_11.04.08 - Signalling system failure - Maintenance error**

Signalling system failure due to Maintenance error

ID	SPRM-826
old ID	RSSB_11.04.08
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




**RSSB\_11.04.09 - Signalling system failure - Power system failure**

Signalling system failure due to Power system failure

ID	SPRM-827
old ID	RSSB_11.04.09
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

**RSSB\_11.04.10 - Signalling system failure - Train detection failure**

Signalling system failure due to Train detection failure

ID	SPRM-828
old ID	RSSB_11.04.10
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

**RSSB\_11.04.11 - Signalling system failure - Wrong side signalling failure**



Signalling system failure due to Wrong side signalling failure

ID	SPRM-829
old ID	RSSB_11.04.11
Status	 Open

Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.05.01 - Power system failure - Failure of conductor rail equipment**

Power system failure due to Failure of conductor rail equipment

ID	SPRM-830
old ID	RSSB_11.05.01
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.05.02 - Power system failure - Failure of overhead catenary system**

Power system failure due to Failure of overhead catenary system

ID	SPRM-831
old ID	RSSB_11.05.02
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### **RSSB\_11.05.03 - Power system failure - Failure of power control**

Power system failure due to Failure of power control

ID	SPRM-832
old ID	RSSB_11.05.03
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.05.04 - Power system failure - Failure of power distribution**

Power system failure due to Failure of power distribution

ID	SPRM-833
old ID	RSSB_11.05.04
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.06.01 - Rolling stock failures - Brake failure**

Rolling stock failures due to Brake failure

ID	SPRM-834
old ID	RSSB_11.06.01
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




#### **RSSB\_11.06.02 - Rolling stock failures - Cybersecurity attack**

Rolling stock failures due to Cybersecurity attack

ID	SPRM-835
old ID	RSSB_11.06.02
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### **RSSB\_11.06.03 - Rolling stock failures - Extreme weather**

Rolling stock failures due to Extreme weather

ID	SPRM-836
old ID	RSSB_11.06.03
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard



#### **RSSB\_11.06.04 - Rolling stock failures - Failure of rolling stock crashworthiness**

Rolling stock failures due to Failure of rolling stock crashworthiness

ID	SPRM-837
old ID	RSSB_11.06.04
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

#### **RSSB\_11.06.05 - Rolling stock failures - Failure of rolling stock software**

Rolling stock failures due to Failure of rolling stock software




ID	SPRM-838
old ID	RSSB_11.06.05
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards



Type	 Hazard
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### RSSB\_11.06.06 - Rolling stock failures - Failure of rolling stock wheelset, bogie, or suspension

Rolling stock failures due to Failure of rolling stock wheelset, bogie, or suspension

ID	SPRM-839
old ID	RSSB_11.06.06
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




### RSSB\_11.06.07 - Rolling stock failures - Failure of rolling stock fixtures and fittings

Rolling stock failures due to Failure of rolling stock fixtures and fittings

ID	SPRM-840
old ID	RSSB_11.06.07
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




### RSSB\_11.06.08 - Rolling stock failures - Gauge infringement

Rolling stock failures due to Gauge infringement

ID	SPRM-841
old ID	RSSB_11.06.08
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_11.06.09 - Rolling stock failures - Maintenance error




Rolling stock failures due to Maintenance error

ID	SPRM-842
old ID	RSSB_11.06.09
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### RSSB\_11.06.10 - Rolling stock failures - Mechanical failure of rolling stock




Rolling stock failures due to Mechanical failure of rolling stock

ID	SPRM-843
old ID	RSSB_11.06.10

Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### **RSSB\_11.06.11 - Rolling stock failures - Power / traction system failure**

Rolling stock failures due to Power / traction system failure

ID	SPRM-844
old ID	RSSB_11.06.11
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




### **RSSB\_11.06.12 - Rolling stock failures - Wheel / rail interface**

Rolling stock failures due to Wheel / rail interface

ID	SPRM-845
old ID	RSSB_11.06.12
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




### **RSSB\_11.07.01 - Software failure - Software development errors**

Software failure due to Software development errors

ID	SPRM-846
old ID	RSSB_11.07.01
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard



### **RSSB\_11.07.02 - Software failure - Incorrect data**

Software failure due to Incorrect data

ID	SPRM-847
old ID	RSSB_11.07.02
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




**RSSB\_11.07.03 - Software failure - Loss of service**

Software failure due to Loss of service

ID	SPRM-848
old ID	RSSB_11.07.03
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard




**RSSB\_11.07.04 - Software failure - Sudden software failure**

Software failure due to Sudden software failure

ID	SPRM-849
old ID	RSSB_11.07.04
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard



**RSSB\_11.07.05 - Software failure - Latent software errors**

Software failure due to Latent software errors

ID	SPRM-850
old ID	RSSB_11.07.05
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

**RSSB\_11.07.06 - Software failure - Corruption of software**





Software failure due to Corruption of software

ID	SPRM-851
old ID	RSSB_11.07.06
Status	 Open
Linked Work Items	has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

**RSSB\_12.02.02 - Person struck by train at level crossing - Person struck by train at level crossing due to level crossing lights / barriers failing to operate**





Person struck by train at level crossing due to Person struck by train at level crossing due to level crossing lights / barriers failing to operate

ID	SPRM-888
old ID	RSSB_12.02.02

Status	 Open
Linked Work Items	relates to :  SPRM-83 - [A3.1.1] Level Crossing Accident involving a train and pedestrians has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

### **RSSB\_12.02.13 - Person struck by train at level crossing - Person struck by train at level crossing due to warning time for level crossing too short**




Person struck by train at level crossing due to Person struck by train at level crossing due to warning time for level crossing too short

ID	SPRM-889
old ID	RSSB_12.02.13
Status	 Open
Linked Work Items	relates to :  SPRM-83 - [A3.1.1] Level Crossing Accident involving a train and pedestrians has parent :  SPRM-477 - RSSB Hazards
Type	 Hazard

## **5 ATO Safety Analysis Hazards**




### **Wrong or Missing application of Safe reaction**

Wrong or Missing application of Safe reaction

ID	SPRM-1869
old ID	ATO-SA Hitachi_Haz_ID_SRS_003
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### **Wrong or missing application of Safe reaction in case of Fire On Board**

Wrong or missing application of Safe reaction in case of Fire On Board

ID	SPRM-1871
old ID	ATO-SA Hitachi_Haz_ID_SRS_007
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### **Brake release application not acceptable for particular location along the track**

Brake release application not acceptable for particular location along the track

ID	SPRM-1872
old ID	ATO-SA Hitachi_Haz_ID_SRS_008
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Wrong or missing application of initial traction effort of a loco with consequent train Roll Back (in case of missing traction effort) or loss of train integrity (in case of excessive traction effort)**

Wrong or missing application of initial traction effort of a loco with consequent train Roll Back (in case of missing traction effort) or loss of train integrity (in case of excessive traction effort)

ID	SPRM-1873
old ID	ATO-SA Hitachi_Haz_ID_SRS_009
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Wrong selection of the Virtual cab**

Wrong selection of the Virtual cab

ID	SPRM-1874
old ID	ATO-SA Hitachi_Haz_ID_SRS_014
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Wrong train condition acquired for the mission and consequent movement of the train with train parameters not compliant**




Wrong train condition acquired for the mission and consequent movement of the train with train parameters not compliant

ID	SPRM-1875
old ID	ATO-SA Hitachi_Haz_ID_SRS_016
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards

Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Trackside and OnBoard implausibility operational context (i.e OnBoard is in Goa2 context but trackside is informed of a GoA3/4 context)**

Trackside and OnBoard implausibility operational context (i.e OnBoard is in Goa2 context but trackside is informed of a GoA3/4 context)

ID	SPRM-1876
old ID	ATO-SA Hitachi_Haz_ID_SRS_020
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Wrong MP sent to train leads to collision with another train**

Wrong MP sent to train leads to collision with another train

ID	SPRM-1877
old ID	ATO-SA AZD_ATOGGoA3/4_HZD_001
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Assigning of two units as master leads to violation of train integrity**




Assigning of two units as master leads to violation of train integrity

ID	SPRM-1878
old ID	ATO-SA AZD_ATOGGoA3/4_HZD_002
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**No APM becomes master and ATO is not engaged**




No APM becomes master and ATO is not engaged

ID	SPRM-1879
old ID	ATO-SA AZD_ATOGGoA3/4_HZD_003

Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**ATO engaged when not expected**

ATO engaged when not expected

ID	SPRM-1880
old ID	ATO-SAAZD_ATOGGoA3/4_HZD_004
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**ATO is not engaged when it should**

ATO is not engaged when it should

ID	SPRM-1881
old ID	ATO-SAAZD_ATOGGoA3/4_HZD_005
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**MP and JP are not updated by REP**




MP and JP are not updated by REP

ID	SPRM-1882
old ID	ATO-SAAZD_ATOGGoA3/4_HZD_008
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Train running with safety critical system failures**




Train running with safety critical system failures

ID	SPRM-1883
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old ID	ATO-SA CAF_aATOG0A3/4_HZD_001
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Calculate Maximum authorized speed is less restrictive than it should

Calculate Maximum authorized speed is less restrictive than it should

ID	SPRM-1884
old ID	ATO-SA CAF_aATOG0A3/4_HZD_004
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Calculated Journey related speed and distance is less restrictive than the SSEM

Calculated Journey related speed and distance is less restrictive than the SSEM

ID	SPRM-1885
old ID	ATO-SA CAF_aATOG0A3/4_HZD_006
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

### The train fails to acoustically warn persons or road and rail vehicles of its presence




The train fails to acoustically warn persons or road and rail vehicles of its presence

ID	SPRM-1886
old ID	ATO-SA SBB_ATOG0A3/4_HZD_004
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard






**The trains runs in GoA1 or GoA2 with a deactivated vigilance device (dead man / SiFa)**

The trains runs in GoA1 or GoA2 with a deactivated vigilance device (dead man / SiFa)

ID	SPRM-1887
old ID	ATO-SA SBB_ATOGGoA3/4_HZD_005
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**External doors opened outside of a safe area for passenger exchange**

External doors opened outside of a safe area for passenger exchange

ID	SPRM-1888
old ID	ATO-SA SBB_ATOGGoA3/4_HZD_006
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**External doors open for an out of service train**




External doors open for an out of service train

ID	SPRM-1889
old ID	ATO-SA SBB_ATOGGoA3/4_HZD_008
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Train moving while it is supposed to be secured against movement (i.e. during passenger exchange, coupling and uncoupling)**




Train moving while it is supposed to be secured against movement (i.e. during passenger exchange, coupling and uncoupling)

ID	SPRM-1890
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old ID	ATO-SA SBB_ATOG0A3/4_HZD_009
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Door closing while people are boarding or leaving the train

#### Door closing while people are boarding or leaving the train

ID	SPRM-1891
old ID	ATO-SA SBB_ATOG0A3/4_HZD_011
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### People onboard on an out of service train

#### People onboard on an out of service train




ID	SPRM-1892
old ID	ATO-SA SBB_ATOG0A3/4_HZD_012
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

### Train moving with open doors




#### Train moving with open doors

ID	SPRM-1893
old ID	ATO-SA SBB_ATOG0A3/4_HZD_015
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Person stuck in a door****Person stuck in a door**

ID	SPRM-1894
old ID	ATO-SA SBB_ATOGGoA3/4_HZD_016
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard


**Train not secured against movement in case of obstacle in the gap between platform and train****Train not secured against movement in case of obstacle in the gap between platform and train**



ID	SPRM-1895
old ID	ATO-SA SBB_ATOGGoA3/4_HZD_017
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Undesired train movement****Undesired train movement**

ID	SPRM-1896
old ID	ATO-SA SBB_ATOGGoA3/4_HZD_020
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Train movement in the wrong direction (e.g. backward instead of forward)****Train movement in the wrong direction (e.g. backward instead of forward)**

ID	SPRM-1897
old ID	ATO-SA SBB_ATOGGoA3/4_HZD_021
Status	 Open

Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Absence / lack of reaction in case of incident / danger

### Absence / lack of reaction in case of incident / danger

ID	SPRM-1898
old ID	ATO-SA SNCF_ATOG0A3/4_HZD_001
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Incorrect service brake supervision

### Incorrect service brake supervision

ID	SPRM-1899
old ID	ATO-SA SNCF_ATOG0A3/4_HZD_003
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Unextraction of mandatory information from infrastructure database

### Unextraction of mandatory information from infrastructure database




ID	SPRM-1900
old ID	ATO-SA SNCF_ATOG0A3/4_HZD_008
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

### No reaction or reaction with delay in case of incident / danger




### No reaction or reaction with delay in case of incident / danger

ID	SPRM-1901
old ID	ATO-SA ALSTOM_ATOG0A3/4_HZD_009
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard


**The doors train are closed and passengers are closed in the train in emergency situation**  
The doors train are closed and passengers are closed in the train in emergency situation



ID	SPRM-1902
old ID	ATO-SA ALSTOM_ATOG0A3/4_HZD_012
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Panic in train while shutdown activated and train on tracks**  
Panic in train while shutdown activated and train on tracks

ID	SPRM-1903
old ID	ATO-SA ALSTOM_ATOG0A3/4_HZD_013
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Passenger stuck on the train in emergency situation and cannot leave the train**  
Passenger stuck on the train in emergency situation and cannot leave the train

ID	SPRM-1904
old ID	ATO-SA DB_ATOG0A3/4_HZD_001
Status	 Open

Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Door open while the train is moving

### Door open while the train is moving

ID	SPRM-1905
old ID	ATO-SA DB_ATOG0A3/4_HZD_002
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Incorrect management of the ATO speed profile lead to Train Overspeed

### Incorrect management of the ATO speed profile lead to Train Overspeed

ID	SPRM-1906
old ID	ATO-SA DB_ATOG0A3/4_HZD_003
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




### Incorrect management of the ATO speed profile lead to Excessive traction effort

### Incorrect management of the ATO speed profile lead to Excessive traction effort

ID	SPRM-1907
old ID	ATO-SA DB_ATOG0A3/4_HZD_004
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Brake overheating when holding brake is applied while traction is applied, ultimately leading to fire or collision / derailment due to reduced braking performance**

Brake overheating when holding brake is applied while traction is applied, ultimately leading to fire or collision / derailment due to reduced braking performance

ID	SPRM-1908
old ID	ATO-SA DB_ATOG0A3/4_HZD_005
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard




**Coupling process start when train is not ready.**

Coupling process start when train is not ready.

ID	SPRM-1909
old ID	ATO-SA DB_ATOG0A3/4_HZD_006
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Sanding is not used on section where it is requested**




Sanding is not used on section where it is requested

ID	SPRM-1910
old ID	ATO-SAAZD_Haz_ID_SRS_003
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

**Sanding is used on section where sanding is prohibited**




Sanding is used on section where sanding is prohibited

ID	SPRM-1911
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old ID	ATO-SA AZD_Haz_ID_SRS_004
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

### Wrong Train movement due to to wrong Driver emulation

### Wrong Train movement due to to wrong Driver emulation

ID	SPRM-1912
old ID	ATO-SA Hitachi_Haz_ID_SRS_021
Status	 Open
Linked Work Items	has parent :  SPRM-1870 - ATO Safety Analysis Hazards
Risk Acceptance Principle	Explicit Risk Estimation
Type	 Hazard

## 6 New Hazards identified by System Pillar Domains

### Hazards Identified by System Pillar Domains

This section will need to be populated with the hazards not already part of this database identified by System Pillar Domains safety analysis, if any. [SPRM-2215,  Open,  Issue ]