

II

(Acts adopted under the EC Treaty/Euratom Treaty whose publication is not obligatory)

DECISIONS

COMMISSION

COMMISSION DECISION

of 30 November 2009

on the reference document referred to in Article 27(4) of Directive 2008/57/EC of the European Parliament and of the Council on the interoperability of the rail system within the Community

(notified under document C(2009) 8680)

(Text with EEA relevance)

(2009/965/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community ⁽¹⁾, and in particular, Article 27(4) thereof,

Having regard to the recommendation of the European Railway Agency (No ERA/REC/XA/01-2009) of 17 April 2009,

Whereas:

- (1) Article 27(3) of Directive 2008/57/EC requires the European Railway Agency to draft a reference document cross-referencing all the national rules applied by the Member States for placing vehicles in service. This document must contain the national rules of each Member State for each of the parameters listed in Annex VII to Directive 2008/57/EC and specify the group referred to in Section 2 of that Annex to which these rules belong. These rules must comprise those notified under Article 17(3) of Directive 2008/57/EC, including those notified following adoption of TSIs (specific cases, open points, derogations) and

those notified under Article 8 of Directive 2004/49/EC of the European Parliament and of the Council ⁽²⁾. The first version of the reference document is to be presented to the Commission no later than 1 January 2010.

- (2) In order to allow comparison and cross-referencing, in respect of a particular parameter, between the requirements contained within the TSIs and those contained in national rules, the list of parameters to be checked in conjunction with the placing in service of non-TSI conform vehicles, should, on the one hand, preserve compatibility with, and build upon existing agreements based on national rules and, on the other hand, reflect the TSIs. It is therefore necessary for the list of parameters to be at a level of detail significantly higher than that currently reflected in Section 1 of Annex VII to Directive 2008/57/EC. It is appropriate to adopt the detailed list of parameters set out in the Annex to this Decision as the basis for the reference document referred to in Article 27(4) of Directive 2008/57/EC.
- (3) The measures provided for in this Decision are in accordance with the opinion of the Committee established in accordance with Article 29(1) of Directive 2008/57/EC,

HAS ADOPTED THIS DECISION:

⁽¹⁾ OJ L 191, 18.7.2008, p. 1.

⁽²⁾ OJ L 164, 30.4.2004, p. 44.

Article 1

The reference document referred to in Article 27(4) of Directive 2008/57/EC shall be drawn up on the basis of the list of parameters set out in the Annex to this Decision.

It shall also contain, for each Member State, some basic information on the national legal framework applicable to placing railway vehicles in service.

Article 2

This Decision is addressed to the Member States and to the European Railway Agency, as represented by its Executive Director.

Done at Brussels, 30 November 2009.

For the Commission
Antonio TAJANI
Vice-President

ANNEX

List of parameters to be used for classifying national rules in the reference document referred to in Article 27 of Directive 2008/57/EC

Reference	Parameters	Explanations
1.0	General documentation	General documentation (including description of new, renewed or upgraded vehicle and its intended use, design, repair, operation and maintenance information, technical file, etc.)
1.1	General documentation	General documentation, technical description of the vehicle, its design and intended use for the kind of traffic (long-distance train, suburban vehicles, commuter services, etc.) inclusive of intended and max design speed, including general plans, diagrams and necessary data for registers, e.g. length of vehicle, axle arrangement, axle spacing, mass per unit, etc.
1.2	Maintenance instructions and requirements	
1.2.1	Maintenance instructions	Maintenance manuals and leaflets, including requirements necessary to maintain design safety level of the vehicle Any appropriate professional qualifications i.e. skills that are requested for equipment maintenance
1.2.2	The maintenance design justification file	
1.3	Instructions and documentation for operation	
1.3.1	Instructions for operation in normal and degraded modes of the vehicle	
1.4	Track-side tests of the complete vehicle	
2.0	Structure and mechanical parts	Mechanical integrity and interface between vehicles (including draw and buffer gear, gangways), strength of vehicle structure and fittings (e.g. seats), loading capability, passive safety (including interior and exterior crashworthiness)
2.1	Vehicle structure	
2.1.1	Strength and integrity	This parameter covers, for example, requirements of the mechanical strength of car body, under-frame, suspension systems, couplings, track sweeper and snow plough. Mechanical strength of separate items of this list such as bogie/running gear, axle box, axle, wheel, and pantograph will be defined separately
2.1.2	Load capability	
2.1.2.1	Load conditions and weighted mass	
2.1.2.2	Axle load and wheel load	For individual wheels/axles in accordance with load conditions of item 2.1.2.1
2.1.3	Joining technology	
2.1.4	Lifting and jacking	
2.1.5	Fixing of devices to car body structure	
2.1.7	Connections used between different parts of the vehicle	E.g. connection/suspension between car body and bogie
2.2	Mechanical interfaces for end coupling or inner coupling	
2.2.1	Automatic coupling	

Reference	Parameters	Explanations
2.2.2	Characteristic of rescue coupling	For operational requirements to rescue trains see also 13.1 and 13.3
2.2.3	Screw couplings	
2.2.4	Buffing, inner coupling and draw gear components	Including design, functionality and characteristics, e.g. elasticity of buffers
2.2.5	Buffer marking	
2.2.6	Draw hook	
2.2.7	Gangways	
2.3	Passive safety	Including, e.g. obstacle deflector, limiting deceleration, survival space, structural integrity of occupied areas, reducing the risk of derailment and overriding, limiting consequences of hitting a track obstruction, interior fittings for passive safety
3	Track interaction and gauging	Mechanical interfaces to the infrastructure (including static and dynamic behaviour, clearances and fits, gauge, running gear, etc.)
3.1	Vehicle gauge	Compatibility of the vehicle profile with the infrastructure and other vehicles (static and dynamic gauge) based on reference static and dynamic gauge
3.1.1	Specific case	Specific case (e.g. vehicles to be carried on a ferry)
3.2	Vehicle dynamics	Rolling stock dynamic behaviour including equivalent conicity, instability criterion, tilting, safety against derailments on twisted track, track loading, etc.
3.2.1	Running safety and dynamics	Including tolerance of vehicle to distortion of track, running on curved or twisted tracks, safe running on points and diamond crossings, etc.
3.2.2	Equivalent conicity, wheel profile and limits	
3.2.3	Track loading compatibility parameters	E.g. dynamic wheel force, wheel forces exerted by a wheel set on the track (quasi static wheel force, maximum total dynamic lateral force, quasi static guiding force)
3.2.4	Vertical acceleration	E.g. dynamic effects transmitted to bridge decks including resonance in bridges
3.3	Bogies/running gear	
3.3.1	Bogies	
3.3.2	Wheel set (axle + wheels)	Including variable gauge wheel sets, axle body, etc.
3.3.3	Wheel	
3.3.4	Wheel/rail interface (including wheel flange lubrication and sanding)	Wheel/rail interface (including wheel flange lubrication, upper sway/wearing track wheel interactions and sanding requirements deriving from traction, braking, train detection)
3.3.5	Bearings on the wheel set	
3.3.6	Minimum curve radius to be negotiated	Values and conditions (e.g. coach coupled/uncoupled)
3.3.7	Rail guard	'Protection of wheels from obstacles on the rails'
3.4	Limit of maximum longitudinal positive and negative acceleration	
4	Braking	Braking-related items (including wheel-slide protection, braking control and braking performance in service, emergency and parking modes)
4.1	Functional requirements for braking at train level	E.g. automaticity, continuity, inexhaustibility
4.2	Safety requirements for braking at train level	

Reference	Parameters	Explanations
4.2.1	Traction/braking interlocking	E.g. traction inhibition
4.3	Brake system Recognised architecture and associated standards	Reference to existing solutions, e.g. UIC
4.4	Brake command	Requirement on brake command per type of brake e.g. number and type of device, allowed delay between command and action on brake
4.4.1	Emergency braking command	
4.4.2	Service braking command	
4.4.3	Direct braking command	
4.4.4	Dynamic braking command	
4.4.5	Parking braking command	
4.5	Brake performance	
4.5.1	Emergency braking	
4.5.2	Service braking	
4.5.3	Calculations related to thermal capacity	
4.5.4	Parking brake	
4.6	Braking adhesion management	
4.6.1	Limit of wheel rail adhesion profile	
4.6.2	Wheel slide protection system	
4.7	Braking force production	Requirement on equipment creating the brake force per type of brake
4.7.1	Friction brake	Including material properties, e.g. for composite brake blocks
4.7.1.1	Brake blocks	
4.7.1.2	Brake discs	
4.7.1.3	Brake pads	
4.7.2	Dynamic brake linked to traction	
4.7.3	Magnetic track brake	
4.7.4	Eddy current track brake	
4.7.5	Parking brake	
4.8	Brake state and fault indication	
4.9	Brake requirements for rescue purposes	
5.0	Passenger-related items	Passenger facilities and passenger environment including passenger windows and doors and requirements for persons with reduced mobility etc.
5.1	Access	Functional and technical specifications e.g. for people with reduced mobility
5.1.1	Exterior doors	
5.1.2	Interior doors	
5.1.3	Clearways	
5.1.4	Steps and lighting	
5.1.5	Floor height changes	
5.1.6	Handrails	
5.1.7	Boarding aids	
5.2	Windows	E.g. mechanical characteristics of windows and glass, requirements for emergencies for mechanical characteristics of windscreens see 9.1.3.1

Reference	Parameters	Explanations
5.3	Toilets	See 6.2.1.1 for toilet emissions
5.4	Passenger information	
5.4.1	Public address system	
5.4.2	Signs and information	Including safety instructions to passengers and emergency markings for passengers
5.5	Seats and specific PRM arrangements	Except access (covered by 5.1)
5.6	Specific passenger-related facilities	
5.6.1	Lift systems	Conformity to CE or national regulation if any
5.6.2	Heating, ventilation and air condition systems	E.g. internal air quality, requirement in case of fire (switch off)
5.6.3	Other	E.g. beverage dispensing units
6.0	Environmental conditions and aerodynamic effects	Impact of the environment on the vehicle and impact of the vehicle on the environment (including aerodynamic conditions and both the interface between the vehicle and the trackside part of the railway system and the interface to the external environment)
6.1	Impact of the environment on the vehicle	
6.1.1	Environmental conditions impacting on the vehicle	
6.1.1.1	Altitude	
6.1.1.2	Temperature	
6.1.1.3	Humidity	E.g. anti-condensation and anti-freezing measures
6.1.1.4	Rain	
6.1.1.5	Snow, ice and hail	E.g. snow cleaning devices, snow plough, ice-free heaters, etc.
6.1.1.6	Solar radiation	
6.1.1.7	Chemical and particulate matter	Impact upon vehicle equipment and functions due to chemicals and small airborne objects (e.g. ballast)
6.1.2	Aerodynamic effects on the vehicle	Aerodynamic impacts upon the vehicle's equipment and functions
6.1.2.1	Crosswind effects	Impact upon vehicle equipment and functions due to crosswinds
6.1.2.2	Maximum pressure variation in tunnels	Impact upon vehicle equipment and functions due to rapid changes in ambient pressure
6.2	Impact of the vehicle on the environment	
6.2.1	Chemical and particulate emissions	Limits for chemical and particulate emissions from the vehicle
6.2.1.1	Toilet emissions	Toilet discharge emissions to the external environment
6.2.1.2	Exhaust gas emissions	Exhaust gas emissions to the external environment
6.2.2	Limits for noise emissions	Limits for noise emissions from the vehicle to the external environment
6.2.2.1	Exterior noise impact	Exterior noise impact caused by the vehicle upon the environment external to the railway system
6.2.2.2	Stationary noise impact	Stationary noise impact caused by the vehicle upon the environment external to the railway system
6.2.2.3	Starting noise impact	Starting noise impact caused by the vehicle upon the environment external to the railway system
6.2.2.4	Pass-by noise impact	Pass-by noise impact caused by the vehicle upon the environment external to the railway system

Reference	Parameters	Explanations
6.2.3	Limits for aerodynamic loads impact	Limits for impact of aerodynamic loads caused by the vehicle upon other parts of the railway system and upon the environment
6.2.3.1	Head pressure pulses	Effect of pressure pulses caused by the head of the train at the track side
6.2.3.2	Aerodynamic impact on passengers/materials on the platform	Aerodynamic disturbance to passengers/materials on platform including assessment methods and operational loading conditions
6.2.3.3	Aerodynamic impact on track workers	Aerodynamic disturbance to track workers
6.2.3.4	Ballast pick-up and projection onto neighbouring property	
7.0	External warning, marking functions and software integrity requirements	External warnings, marking functions and integrity of software, e.g. safety-related functions with impact on the train behaviour including train bus
7.1	Integrity of software employed for safety-related functions	E.g. integrity of software of train bus
7.2	Visual and audible vehicle identification and warning functions	
7.2.1	Vehicle marking	
7.2.2	External lights	
7.2.2.1	Headlights	
7.2.2.2	Marker lights	
7.2.2.3	Tail lights	
7.2.2.4	Lamp controls	
7.2.3	Warning horn	
7.2.3.1	Warning horn tones	
7.2.3.2	Warning horn sound pressure levels	Outside the cab — for internal sound level, see 9.2.1.2
7.2.3.3	Warning horns, protection	
7.2.3.4	Warning horns, control	
7.2.3.5	Warning horns verification of sound pressure levels	
7.2.4	Brackets	E.g. requirements for rear end signals: lamps, flags, etc.
8.0	Onboard power supply and control systems	Onboard propulsion, power and control systems plus the interface of the vehicle to the power supply infrastructure plus EMC (all aspects)
8.1	Traction performance requirements	
8.1.1	Residual acceleration at max speed	
8.1.2	Residual traction capability in degraded mode	
8.1.3	Traction wheel/rail adhesion requirements	
8.2	Functional and technical specification related to the interface between the vehicle and the energy subsystem	
8.2.1	Functional and technical specification related to the electric power supply	
8.2.1.1	Power supply	
8.2.1.2	Impedance between pantograph and wheels	
8.2.1.3	Voltage and frequency of overhead contact line power supply	

Reference	Parameters	Explanations
8.2.1.4	Energy recuperation	
8.2.1.5	Maximum power and maximum current that is permissible to draw from the overhead contact line	Including maximum current at standstill
8.2.1.6	Power factor	
8.2.1.7	System energy disturbances	
8.2.1.7.1	Harmonic characteristics and related over-voltages on the overhead contact line	
8.2.1.7.2	Effects of DC content in AC supply	
8.2.1.8	Electrical protection	E.g. selectivity of onboard protections and substation protection system
8.2.2	Pantograph functional and design parameters	
8.2.2.1	Pantograph overall design	
8.2.2.2	Pantograph head geometry	
8.2.2.3	Pantograph static contact force	
8.2.2.4	Pantograph contact force (including dynamic behaviour and aerodynamic effects)	Including quality of current collection
8.2.2.5	Working range of pantographs	
8.2.2.6	Current capacity	
8.2.2.7	Arrangement of pantographs	
8.2.2.8	Insulation of pantograph from the vehicle	
8.2.2.9	Pantograph lowering	
8.2.2.10	Running through phase separation sections	
8.2.2.11	Running through system separation sections	
8.2.3	Contact strip functional and design parameters	
8.2.3.1	Contact strip geometry	
8.2.3.2	Contact strip material	
8.2.3.3	Contact strip assessment	
8.2.3.4	Detection of contact strip breakage	
8.2.3.5	Current capacity	
8.3	Electrical power supply and traction system	
8.3.1	Energy consumption measurement	
8.3.2	Main electrical circuit configuration	
8.3.3	High voltage components	
8.3.4	Earthing	
8.4	Electromagnetic compatibility	The electromagnetic compatibility between the onboard electrical power supply and control system and: <ul style="list-style-type: none"> — other parts of the onboard electrical power supply and control system on the same vehicle, — other vehicles, — the trackside part of the railway system, — the external environment
8.4.1	Electromagnetic compatibility within the onboard electrical power supply and control system	The electromagnetic compatibility between parts of the onboard electrical power supply and control system
8.4.2	Electromagnetic compatibility with the signalling and telecommunications network	The electromagnetic compatibility between the onboard electrical power supply and control system and the signalling and telecommunications network part of the trackside

Reference	Parameters	Explanations
8.4.3	Electromagnetic compatibility with other vehicles and with the trackside part of the railway system	The electromagnetic compatibility between the onboard electrical power supply and control system and other vehicles and the trackside part of the railway system other than the signalling and telecommunications network
8.4.4	Electromagnetic compatibility with the environment	The electromagnetic compatibility between the onboard electrical power supply and control system and the environment external to the railway system (including people in the neighbourhood or on the platform, passengers, drivers/staff)
8.5	Protection against electrical hazards	
8.6	Diesel and other thermal traction system requirements	
8.7	Systems requiring special monitoring and protection measures	
8.7.1	Tanks and pipe systems for flammable liquids	Special requirements for tanks and pipe systems for flammable liquids (including fuel)
8.7.2	Pressure vessel systems/pressure equipment	
8.7.3	Steam boiler installations	
8.7.4	Technical systems in potentially explosive atmospheres	Special requirements for technical systems in potentially explosive atmospheres (e.g. liquid gas, natural gas and battery-powered systems, including protection of transformer tank)
8.7.5	Ionisation detectors	
8.7.6	Hydraulic/pneumatic supply and control systems	Functional and technical specifications, e.g. compressed air power supply, capacity, type, temperature range, air dryers (towers), dew point indicators, insulation, air intake characteristics, fault indicators, etc.
9.0	Staff facilities, interfaces and environment	The onboard facilities, interfaces, working conditions and environment for staff (including drivers cabs and driver/machine interfaces)
9.1	Driver's cab design	
9.1.1	Cab design	
9.1.1.1	Interior layout	E.g. space availability, cab arrangement and ergonomic requirements
9.1.1.2	Desk ergonomics	
9.1.1.3	Driver's seat	
9.1.1.4	Means for the driver to exchange documents	
9.1.1.5	Other facilities to control operation of the train	
9.1.2	Access to driver's cab	
9.1.2.1	Access, egress and doors	
9.1.2.2	Driver's cab emergency exits	
9.1.3	Windscreen in driver's cab	
9.1.3.1	Mechanical characteristics	
9.1.3.2	Optical characteristics	
9.1.3.3	Equipment	E.g. de-icing, de-misting, external cleaning devices, etc.
9.1.3.4	Front visibility	
9.2	Working conditions	
9.2.1	Environmental conditions	

Reference	Parameters	Explanations
9.2.1.1	Heating, ventilation and air condition systems in driver cabs	
9.2.1.2	Noise in driver cabs	Including horn level inside the cab
9.2.1.3	Lighting in driver cabs	
9.2.2	Others	
9.3	Driver/machine interface	Equipment in driver's cab to supervise and control safe operation of the train
9.3.1	Driver/machine interface	
9.3.1.1	Speed indication	Recording of speed covered by 9.6
9.3.1.2	Driver display unit and screens	
9.3.1.3	Controls and indicators	
9.3.2	Driver supervision	Driver activity control function, e.g. vigilance
9.3.3	Rear and side view	
9.4	Marking and labelling in driver cabs	Static display of basic information for the driver
9.5	Equipment and other facilities onboard for staff	
9.5.1	Facilities onboard for staff	
9.5.1.1	Staff access for coupling/uncoupling	
9.5.1.2	External steps and handrails for shunting staff	
9.5.1.3	Storage facilities for use by staff	
9.5.1.4	Other facilities	
9.5.2	Staff and freight access doors	Doors equipped with security device for opening only by staff including catering
9.5.3	Onboard tools and portable equipment	E.g. equipment needed by driver or staff in emergency situation
9.5.4	Audible communication system	E.g. for communication between: <ul style="list-style-type: none"> — the train crew, — the train crew and people inside/outside of the train
9.6	Recording device	For the purpose of monitoring the behaviour of driver and train
9.8	Remote control function	
10	Fire safety and evacuation	
10.1	Fire safety	
10.1.1	Fire protection concept	
10.1.1.1	Classification of vehicle/fire categories	
10.1.2	Fire protection measures	
10.1.2.1	General protection measures for vehicles	
10.1.2.2	Fire protection measures for specific kinds of vehicles	E.g. requirements for freight trains or passenger trains on running capability, drivers' protection, etc.
10.1.2.3	Protection of driver's cab	
10.1.2.4	Fire barriers	
10.1.2.5	Material properties	
10.1.2.6	Fire detectors	
10.1.2.7	Fire extinction equipment	
10.2	Emergency	

Reference	Parameters	Explanations
10.2.1	Passenger emergency exits	
10.2.2	Rescue services' information, equipment and access	
10.2.3	Passenger alarm	
10.2.4	Emergency lighting	
10.3	Additional measures	
11	Servicing	Onboard facilities and interfaces for servicing
11.1	Train cleaning facilities	
11.1.1	Train external cleaning facilities	E.g. external cleaning through a washing plant
11.1.2	Train internal cleaning	
11.2	Train refuelling facilities	
11.2.1	Waste water disposal systems	Including interface to toilet discharge system
11.2.2	Water supply system	Conformity to sanitary regulations
11.2.3	Further supply facilities	E.g. special requirement for stabling of trains
11.2.4	Interface to refuelling equipment for non-electric rolling stock	E.g. nozzles used for diesel fuels and others
12.0	Onboard control command and signalling	All the onboard equipment necessary to ensure safety and to command and control movements of trains authorised to travel on the network and its effects on the trackside part of the railway system
12.1	Onboard radio system	
12.1.1	Non-GSM-R radio system	
12.1.2	GSM-R compliant radio system	
12.1.2.1	Text messages	Specific requirements for text messages (e.g. in emergency)
12.1.2.2	Call forwarding	Requirements and conditions governing call forwarding
12.1.2.3	Broadcast calls	Requirements and conditions governing broadcast calls
12.1.2.4	Cab-radio related requirements	I.e. other national mandatory cab radio-related requirements not made mandatory by TSI
12.1.2.5	Network selection by external trigger	
12.1.2.6	General purpose radio-related functions	I.e. other national mandatory general purpose radio-related functions not made mandatory by TSI
12.1.2.7	Primary controller's MMI functionality	Requirements exported to the cab mobile derived from controller's MMI functionality
12.1.2.8	Use of hand portables as cab mobile radio	As primary or fall-back radio
12.1.2.9	Capacity of onboard GSMR	E.g. requirement for packet switching capability
12.1.2.10	GSM-R-ETCS interface	E.g. train ID synchronisation
12.1.2.11	Interconnection and roaming between GSM-R networks	Applicable until new release of Eirene target during 2010
12.1.2.12	Border crossing	Applicable until new release of Eirene target during 2010
12.1.2.13	GPRS and ASCI	Covered by change request. No national rules expected
12.1.2.14	Interface between rolling stock driver's safety device, vigilance device, and GSM-R onboard assembly	Applicable until new release of Eirene target during 2010

Reference	Parameters	Explanations
12.1.2.15	Test specification for mobile equipment GSM-R	To be closed with additions to Eirene specs
12.1.2.16	Directed/automatic network selection	
12.1.2.17	Registration and deregistration	
12.1.2.18	GSM-R version management	No longer an open point — covered by agency procedure — to be removed from open points in TSI. No national rules expected
12.2	Onboard signalling	
12.2.1	National onboard signalling systems	Control and warning systems including, e.g. 'area emergency braking function' and other national requirements for train protection
12.2.2	Compatibility of signalling system with the rest of the train	Compatibility of onboard signalling equipment with other systems onboard a train, e.g. brakes, traction, etc.
12.2.3	Compatibility of rolling stock with track infrastructure	Compatibility, e.g. with track-side detection systems or hot axle box detectors, for EMC see 8.4.2
12.2.3.1	Relation between axle distance and wheel diameter	
12.2.3.2	Metal free space around wheels	
12.2.3.3	Metal mass of a vehicle	
12.2.4	ETCS cab signalling system	
12.2.4.1	Awakening	To be resolved in baseline 3
12.2.4.2	Train categories	To be resolved in baseline 3
12.2.4.3	Performance requirements for onboard GSM-R equipment related to quality of service	Service quality of GSM-R required for ETCS
12.2.4.4	Use of ETCS modes	Requirements on use of ETCS modes that affect vehicle authorisation over and above those in the TSIs
12.2.4.5	ETCS requirements when vehicle is driven from outside the cab	Requirements over and above or conflicting with the TSIs in respect of driving outside the cab, e.g. radio control by ground staff when shunting
12.2.4.6	Level crossing functionality	To be resolved in baseline 3
12.2.4.7	Braking safety margins	To be resolved in baseline 3
12.2.4.8	Reliability — Availability — Safety requirements	To be resolved by TSI revision
12.2.4.9	Marker boards	Requirements exported to vehicle to ensure visibility of boards (e.g. spread of headlight beam, visibility from cab) partially solved in 2.3.0d, to be fully resolved in baseline 3
12.2.4.10	Ergonomic aspects of the DMI	To be resolved in baseline 3
12.2.4.11	ETCS values of variables controlled outside UNISIG — Manual	To be resolved in baseline 3
12.2.4.12	KM conformance requirements	To be resolved in baseline 3
12.2.4.13	Requirements for pre-fitting ETCS onboard equipment	No longer an open point — covered by chapter 7 agreed by RISC March 2009 — will be removed from the next version of the TSI. No national rules expected
12.2.4.14	ETCS version management	No longer an open point — covered by agency procedure — to be removed from open points in TSI. No national rules expected
12.2.4.15	Specification of ETCS variables	To be resolved in baseline 3
12.2.4.16	RBC — RBC interface	Will be covered in 2.3.0d, test specification to be recommended in June 2009 RISC

Reference	Parameters	Explanations
12.2.4.17	Additional requirements on locomotives and multiple units	
12.2.4.18	Functionality and interfaces of staff protection systems to the signalling system	To be resolved in baseline 3
12.2.4.19	Interface with service brake	To be resolved by TSI CCS revision
13	Specific operational requirements	Specific requirements on vehicles for operations (including degraded mode, vehicle recovery, etc.)
13.1	Specific items to place onboard	
13.2	Occupational health and safety	
13.3	Lifting diagram and instructions for rescue	Rescue, lifting and re-railing
14	Freight-related items	Freight-specific requirements and environment (including facilities specifically required for dangerous goods)
14.1	Design, operation and maintenance constraints for the transport of dangerous goods	E.g. requirements derived from RID, national rules or other regulations for the transport of dangerous goods
14.2	Specific facilities for the transport of freight	
14.3	Doors and loading facilities	