

## **Appendix 1 – Contents of a Railway Undertaking's Safety Case**

The information below provides detail of a proposed structure for a railway undertaking's Safety Case, where required in accordance with section 39 of the Railway Safety Act 2005. Each section should be developed within the Safety Case to a level commensurate with the relevance of that section to the railway undertaking's responsibilities.

### **1.0 Introduction**

#### **1.1 *Railway Undertaking's Name and Address***

The railway undertaking's official company name, trading name (where different) and registered address. The senior management position within the railway undertaking with responsibility for ensuring the railway undertaking's compliance with the processes described in the Safety Case.

#### **1.2 *Description of Operations***

An overview description of the operation of the railway undertaking, including:

- numerical details of the size and scope of the operation,
- key geographical boundaries
- operational interfaces with other railway undertakings or outside parties (e.g. in the form of simple maps and drawings).

#### **1.3 *Description of Infrastructure and Rolling Stock***

A general description of:

- the railway infrastructure (including gauge and types of signalling and rail vehicle control);
- premises;
- rolling stock; and
- equipment,

intended to be used by the railway undertaking for the operations proposed.

#### **1.4 *Safety Policy Statement***

A high-level statement of the railway undertaking's policy regarding the prevention of risk and the protection from hazards of all persons who may be affected by its activities.

#### **1.5 *Safety Objectives for Railway Undertaking***

A general statement of how the undertaking will set objectives for maintaining and (where appropriate) improving safety within its operations, and how performance against these objectives will be measured.

#### **1.6 *Demonstration of Commitment to Safety***

A clear statement of the intention to implement the safety policy and meet the objectives. Details of the managerial and supervisory structure, and supporting services where relevant, which will enable the intentions to be realised.

#### **1.7 *Glossary of Abbreviations, Acronyms and Jargon***

A point of reference to clarify the meaning of any abbreviations, acronyms or jargon used in the Safety Case document.

## **2.0 Organising, Planning and Implementing**

### **2.1 Introduction**

Confirmation of the railway undertaking's commitment to implement any safety measures identified as being necessary and an outline of its plan to do so.

### **2.2 Organisation**

A clear description of the organisation and staffing arrangements of the railway undertaking, including:

- organisation charts;
- demonstration that sufficient numbers of suitably-skilled staff are available in each section of the organisation; and
- description of which groups are involved in safety-critical and safety-related activities.

The management and supervisory structure should be detailed, identifying those roles that have special competence requirements associated with them in order to achieve the intended level of safety within the railway undertaking's activities. Any relevant ancillary support groups, such as safety advisors, should also be similarly detailed.

### **2.3 Cooperation**

A description of the systems and procedures for coordinating, cooperating and consulting with other organisations or individuals whose operations may affect the safe operation of the railway undertaking, or vice-versa.

Details should be included of the actions the railway undertaking will take in the event of non-cooperation by these other organisations.

### **2.4 Communication**

A description of the communications systems and processes. Among potential communication channels will be:-

- upwards and downwards within the railway undertaking;
- to and from other railway undertakings as appropriate;
- to and from outside parties such as landowners, local authorities, Railway Procurement Agency, etc.;
- to and from the Railway Safety Commission; and
- to and from passengers and the public.

Distinction should be drawn between real-time communication concerning the current operation of the railway, and longer-term communication to support safety planning; the descriptions of communication methods should reflect these differences.

### **2.5 Consultation**

A description of the systems for involving staff, either directly or through their representatives, in the development and implementation of the safety management system, and for consulting with staff and their representatives generally on issues relating to safety.

Processes should also be detailed for consultation with individuals, passenger groups or other bodies which have interest and involvement in the safe operation of the railway.

### **2.6 Training and Competence**

A description, for all jobs which have safety responsibilities, of how the necessary safety-related competences are identified, and how any resultant training programme is managed. Management of training should include the process for identification of a training need, its

provision, post-training assessment of competence, periodic re-assessment, and the maintenance of records.

### **2.7 Management of Contractors**

The arrangements to ensure the adequate competence of contractors, their subcontractors, or other persons who are not direct employees of the railway undertaking, in order to comply with the railway undertaking's requirements in relation to safety and the management of risk. These competences should encompass control of health and safety risks to the individuals and others, and system risks to the railway. The process for management and safety monitoring which will be applied to such persons by the railway undertaking should be stated.

### **2.8 Change Management (Systems and Hardware)**

The systems and procedures to ensure that risks arising from changes to the railway undertaking are assessed and properly controlled both during the change process and after its completion. Such changes may include:

- the organisational structure, roles and safety responsibilities;
- methods of work;
- duties of staff; and
- modifications to works, plant and equipment including their maintenance regimes.

A strategy to analyse proposed changes through a risk assessment procedure should also be given, together with processes for monitoring the implementation of such changes, their effectiveness and impact on safety.

### **2.9 Safety Case Revision**

A mechanism for the revision of the railway undertaking's Safety Case in the following instances:

- when considered appropriate by the railway undertaking (e.g. following periodic review);
- following introduction of new infrastructure or new rolling stock; or
- when requested or directed by the Railway Safety Commission.

Details of the system for identifying, assessing and managing the consequences of proposed and agreed changes should be included.

### **2.10 Interface Agreement**

Details of any agreement which details the systems and procedures agreed between interfacing railway undertakings whose operations have potential to affect either the safety of each other's operations, or compliance with the general duty imposed on each of them

## **3.0 Hazard Identification and Risk Assessment**

### **3.1 Applicable Risk Criteria**

Statements of the criteria against which the risk to each exposed group (e.g. staff, passenger, public etc.) will be compared to determine whether or not further controls are required. Where relevant, the sources or derivation of the criteria should be stated and justified.

### **3.2 Methods and Processes for Hazard Identification**

A description of the processes adopted to systematically identify all reasonably foreseeable hazards which the railway undertaking's activities might present to all affected groups of persons. Potential hazards at interfaces (both organisational and physical interfaces) should receive special attention.

### **3.3 *Methods and Processes for Risk Assessment***

A description of the risks assessment processes by which the identified hazards are assessed to determine the associated frequency of occurrence and severity of outcome, thereby determining the risk levels they present to the safety of persons. The descriptions should include the methods of analysis and details of any assumptions made about human or hardware performance and reliability. The level of detail required (including the sophistication of the risk assessment process) should be proportionate to the nature and complexity of the operations of the railway undertaking and hence to the risks being controlled.

The risk assessment processes should confirm that risks presented to the exposed groups are acceptable against the associated risk criteria, and that risks are controlled as far as is reasonably practicable.

A description of the processes to ensure that identified hazards and associated risk levels are regularly reviewed to ensure that they remain valid, and are not outdated or redundant as a result of changes in circumstances.

### **3.4 *Significant Findings and Control Measures Taken***

A presentation of the results of the risk assessments undertaken, how they compare with the risk criteria, and a summary of the control measures in place or proposed for each. Where identified risks are to be controlled by rules, procedures, legislative requirements or compliance with standards, cross references should be provided. The form of presentation should enable clear identification of the most critical risks, for which the most detailed evidence should be provided of control measures implemented or proposed.

### **3.5 *Conclusions***

A summary of the risk assessment process, highlighting the most significant hazards identified, commenting on any non-conformance with the applied risk criteria, and reiterating the scope of control measures for the greatest risks. Confirmation should be provided that risks have been reduced as far as is reasonably practicable.

## **4.0 *Standards and Control Procedures***

### **4.1 *Listing of Other Relevant Documents***

A list of the titles and references (but not the contents) of any documents which are regarded as necessary in order for the railway undertaking to achieve and maintain its levels of safety on the railway. They will include both those of a technical nature and those of a procedural or operational nature. Sources may range from national or international standards to internal procedures specific to the railway undertaking. The overall strategy for grouping and indexing of the documents should be stated.

### **4.2 *Justification and Document Control***

A description of the systems for identification and adoption of applicable technical specifications, guidelines, rules and standards (whether developed by the railway undertaking or by external parties and bodies), and justification of their use. The system for assessing, authorising, and distributing revisions to the documents in current use should also be detailed, including definition of circulation lists for controlled documents and withdrawal of superseded documents.

A description of the systems for ensuring that the distribution and revision strategy is properly implemented, and that the adopted technical specifications, guidelines, rules and standards are complied with.

## **5.0 Performance Review and Management**

### **5.1 Data Collection**

A description of the data that will be used to measure safety performance, and how it will be generated, collected and recorded. Data from audit programmes and records of actual accidents and safety-related incidents should be included.

### **5.2 Data Processing and Trend Analysis**

A description of the ways in which the collected data will be analysed to monitor safety performance, thereby supporting identification of trends and measurement of performance against the set targets.

An outline of the resources and skills which will be applied to this data processing should be given.

### **5.3 Target Setting and Monitoring**

A description of how the railway undertaking will determine its safety targets and the safety-related key performance indicators (KPIs) through which to monitor safety performance. Details of the intended frequency for monitoring of progress towards the targets and who will be directly involved in the monitoring activity.

### **5.4 Continuous Improvement**

A description of the procedures for regular re-evaluation of the safety management system, its supporting processes or technical standards, and the initiation of any necessary improvements. Inputs to this process will include, but not be limited to, the monitoring processes described above, the results of audits, or findings and recommendations from accident investigations.

### **5.5 Confirmation of Compliance**

A description of the systems for ensuring continuing compliance with the safety management system, and its supporting processes, procedures and standards, at all levels and by all staff of the railway undertaking. Audit (detailed in section 9 below) will form part of this process but evidence of a plan to conduct regular compliance checks by supervisors and managers will be expected.

Provide details of the mechanism which will deliver any necessary changes which the review reveals as necessary.

### **5.6 Annual Review**

A description of the procedures for a full and formal review of actual safety performance and the effectiveness of the safety management system. Such review should be undertaken at least annually, or at intermediate times considered necessary by the railway undertaking. Where necessary, the review should initiate changes in safety management processes or controls, and the procedure should establish timescales for implementation of changes and a system for monitoring effectiveness of a change. These procedures should involve the most senior management within the organisation.

### **5.7 Annual Safety Plan**

Outline of how the railway undertaking will prepare an annual plan in which it reports its progress towards safety objectives from the previous year and describes and justifies any appropriate new or revised objectives that are to be adopted for the coming year, and the strategies for achieving those objectives.

## **6.0 Accident and Incident Investigation**

### **6.1 Investigation and Root Cause Identification**

Evidence of appropriate arrangements for investigating accidents and incidents. The arrangements for investigating all accidents and incidents should be detailed.

The arrangements should show that sufficient rigour will be applied to ascertain not only immediate causes but also the root causes of accidents and incidents, and to make recommendations where appropriate. Commitment should also be provided to the full consideration of recommendations and implementation of these where reasonably practicable. Competence requirements for individuals with responsibility for investigation of accidents and incidents should be detailed.

### **6.2 Co-operation with Others**

Outline procedures for identifying and working with other organisations or individuals in investigating accidents and incidents, specifically:

- for co-ordination of investigations and findings with others (including other railway undertakings) where appropriate; and
- for co-operative participation in investigations by others, where appropriate.

These procedures should include the interfacing arrangements with the Rail Accident Investigation Unit (RAIU).

## **7.0 Emergency Planning**

### **7.1 Procedures for Dealing with Accidents and Emergencies (including Evacuation)**

A description of the systems and procedures for minimising risks to persons when some unplanned or unintended event presents an out-of-the-ordinary threat. The systems will often include calling, and liaising with, the civil emergency services. Evidence should be given of processes for co-operation with these emergency services and the performance of appropriate joint exercises that will facilitate:

- development and testing of emergency plans; and
- establishing and maintaining competence.

Railway undertakings need to identify the accident or incident scenarios to be covered, examples of which should include:

- the aftermath of a rail vehicle accident (derailment, collision or fire);
- fires in premises, especially in public places, and evacuation procedures;
- the aftermath of a severe structural failure, especially of a public place; and
- severe congestion/crowding, especially in significantly-enclosed public places.

Descriptions of the arrangements for liaison and co-ordination with external parties in the case of emergencies occurring off the railway but which have potential to affect the safety of the railway undertaking's operations.

## **8.0 Procurement**

### **8.1 Procurement of Premises, Plant, Substances, and Services**

A description of the controls which will be applied to ensure that, where appropriate to the nature and scope of supply of any contract, third parties with whom the railway undertaking contracts for the supply of goods or services:

- are required to demonstrate the application of their own safety management processes; and

- have processes that are consistent with the railway undertaking's safety management processes and health and safety obligations.

In addition, a description should be provided of the process by which the railway undertaking ensures that the impact of proposed contractual clauses on safety is reviewed and minimised.

Controls implemented by the railway undertaking in the control of third parties should include pre-contract and/or post-contract checks, as appropriate, for confirmation of adequate:

- safety awareness;
- safety arrangements ensuring availability of sufficient safety information about their services and/or products;
- competence management for their safety-related or safety-critical personnel;
- safety performance and safety monitoring;
- definition of safe methods of work including method statements; and
- risk assessment for the scope of supply to ensure that the appropriate hazards have been identified and control measures implemented.

There should be evidence of monitoring by the railway undertaking to ensure that the third party's commitments are fulfilled.

The railway undertaking should demonstrate that it does not contract with third parties until they have been appropriately assessed for adequacy in their safety management processes to support delivery of the scope of goods and services that they will be contracted to provide.

## **8.2 Procurement of Major Infrastructure Works and New Rolling Stock**

In view of the potential technical complexity and risks more detailed evidence of the third party's safety management system is called for in relation to major new works and rolling stock. The level of detail should be commensurate with the level of complexity of the scope or work being undertaken by the third party. (These works will additionally require specific New Works Assessments and New Rolling Stock Assessments respectively to be completed and submitted to the RSC for acceptance in addition to the acceptance of the Safety Case.)

## **9.0 Auditing**

A description of the strategy to apply safety auditing as an ongoing management and monitoring tool, and the resources which will be applied to it. Such auditing will typically include:

- internal auditing of safety management processes;
- auditing of the processes of key suppliers of goods and services whose activities have potential safety impact; and
- independent auditing of the railway undertaking's activities by external parties.

Details of the process by which the results of audits are addressed and, fed back into the review and revision process where appropriate.

The scope of independent auditing should include audits specifically required by section 50 of the Railway Safety Act 2005, and details should be provided of how and when these specific audits will be commissioned.

## **10.0 Conclusions**

Demonstrate that a robust system for the management of all aspects of safety has been put in place by the railway undertaking and thence that the following objectives have been met:

- the railway undertaking has properly assessed and effectively controlled risks to the safety of persons and the supply of material and contracting of services, in compliance with its general duty; and
- a working document has been provided by which the railway undertaking and the RSC can ensure that safety systems are being properly implemented and continue to be maintained.