

**EXPLANATORY MEMORANDUM TO  
THE RAILWAYS AND OTHER GUIDED TRANSPORT SYSTEMS (SAFETY)  
REGULATIONS 2006**

**2006 No. 599**

**and**

**THE RAILWAYS (ACCESS TO TRAINING SERVICES) REGULATIONS  
2006**

**2006 No. 598**

1. This explanatory memorandum has been prepared by the Department for Transport and is laid before Parliament by Command of Her Majesty.
2. **Description**
  - 2.1 The two sets of Regulations to which this explanatory memorandum relates implement the greater part of a European Directive (2004/49/EC), known as the Railway Safety Directive (RSD).
  - 2.2 The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (“Safety Regulations”) implement requirements in the RSD for railway operators and railway infrastructure managers on the mainline railway to maintain a Safety Management System (SMS); and to hold a safety certificate (or ‘authorisation’ for infrastructure managers) indicating that the SMS has been accepted by the safety authority, before being allowed to operate.
  - 2.3 The Safety Regulations also consolidate *existing national provisions* for non-mainline railways to maintain a safety management system and to ensure the ‘initial integrity’ (i.e. safe design) of new and altered vehicles and infrastructure. Furthermore, the Safety Regulations implement a number of recommendations, from Lord Cullen’s Public Inquiry into the railway collision at Ladbroke Grove, on the control of safety critical work.
  - 2.4 The Railways (Access to Training Services) Regulations 2006 (“Training Services Regulations”) provide railway undertakings applying for a safety certificate, and infrastructure managers and relevant staff, with fair and non-discriminatory access to training services. This includes training for train drivers and staff accompanying the train, whenever such training is necessary for the fulfilment of requirements to obtain the safety certificate; and for infrastructure manager staff who perform safety critical tasks.

- 2.5 The Training Services Regulations provide a right of appeal to the Office of Rail Regulation (ORR) if access to any of the conferred rights is denied.

### **3. Matters of special interest to the Joint Committee on Statutory Instruments**

- 3.1 None.

### **4. Legislative Background**

- 4.1 The two sets of regulations are being made to implement most of the RSD, which is one of the Directives in the Second Package of EU Rail Directives. It should be noted that the Safety Regulations also include national provisions other than those required by the RSD, and which are not derived from it.
- 4.2 The Safety Regulations are being made under the Health and Safety at Work, etc. Act 1974. The Training Services Regulations are being made under section 2(2) of the European Communities Act 1972.
- 4.3 The Safety Regulations implement most of the RSD. The Training Services Regulations implement relevant parts of Article 13 of the RSD, as that part of the Directive relates to access to training.
- 4.4 A Transposition Note (TN) for the RSD is at Annex A. The TN also refers to the creation of the Railways Accident Investigation Branch (RAIB). This requirement of the Directive (Articles 19-25) was implemented by the Railways and Transport Safety Act 2003 and The Railways (Accident Investigation and Reporting) Regulations 2005 (SI 2005/1992, amended by SI 2005/3261) and although it is not within the scope of this Explanatory Memorandum, it is referred to here for completeness.
- 4.5 A brief scrutiny history is attached to the Transposition Note (at Annex A1).

### **5. Extent**

- 5.1 The Safety Regulations and the Training Services Regulations apply to Great Britain. Neither instrument applies to Northern Ireland or the Channel Tunnel (including the terminals, associated works, facilities and installations), for the purposes of the Directive's requirements.

### **6. European Convention on Human Rights**

- 6.1 As the instruments are subject to negative resolution procedure and do not amend primary legislation, no statement is required.

## 7. Policy background

7.1 The objective of the RSD is to create a common European regulatory framework for safety, particularly the maintenance of Safety Management Systems (SMS). It is intended that a common approach will help to break down technical barriers to establishing international transport operations and a single market for rail transport services in Europe. The purpose of the RSD is to:

- a) harmonise the regulatory structure across Europe;
- b) define responsibilities between various players (operators, infrastructure, national safety authority, etc.);
- c) develop common safety targets and methods (to be developed by a European Commission (EC) agency called the European Railways Agency (ERA);
- d) establish safety authorities and accident investigating bodies; and
- e) define common principles for the management, regulation and supervision of railway safety.

7.2 In Great Britain, the safety authority, which is independent of the railways, as required in (d) above, already exists as part of the Health and Safety Executive (HSE), but from 1 April 2006 the responsibility for rail safety will transfer to the Office of Rail Regulation (ORR) in accordance with the Railways Act 2005, following the coming into force of the proposed Health and Safety (Enforcing Authority for Railways and Other Guided Transport Systems) Regulations 2006.

7.3 The requirement to implement most of the remaining provisions of the RSD provided a good opportunity to consolidate the current regulatory framework in Great Britain, particularly with respect to variation in scope and application of existing regulations. The Safety Regulations were developed as part of a legislative reform project to:

- implement the Railway Safety Directive (RSD);
- replace the Railway Safety Case Regulations 2000 (RSCR);
- replace the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 (ROTS);
- replace the Safety Critical Work Regulations 1994 (SCWR), and,
- implement outstanding recommendations from Lord Cullen's inquiry,

in one consolidated, coherent set of Regulations for railways (including heritage and light rail), tramways, metros, and other guided transport systems (such as monorails and magnetic levitation systems, etc.).

7.4 The approach taken with the Safety Regulations, in broad terms, is to:

- adopt RSD requirements for a SMS and safety certification (or safety authorisation) to replace the safety case regime in RSCR for the mainline railways;

- apply similar principles for a SMS to other railways and transport systems, adapted to reflect the nature and extent of those operations (but not requiring the full certification/authorisation process provided by the RSD for the purposes of European harmonisation, or any certification requirements for some operators, for example, heritage railways);
- revoke ROTS and create a new, proportionate, system of safety verification to control the risks arising from the introduction of new/altered vehicles and infrastructure; and
- replace the SCWR requirements by implementing requirements to control the impact of fatigue, competence and fitness on safety critical workers, as that work affects the safety of employees and the public (and remove bureaucratic requirements, such as the need for safety critical workers to carry identification cards).

7.5 The Health and Safety Commission (HSC) consulted on proposals to implement the Safety Regulations in 2004 and put forward proposals to Ministers in March 2005. However, HSC recommended at that time that Ministers wait for the Department for Transport (the Department) to develop proposals for regulations to implement EC Directives on ‘interoperability’ (to harmonise technical standards for railways), to be known as the Railways (Interoperability) Regulations 2006 (“Interoperability Regulations”), as these interfaced with the proposed requirements for safety verification in the Safety Regulations.

7.6 Most stakeholders were satisfied that the Safety Regulations suitably implemented the European requirements. There were some concerns over the terminology used, particularly with respect to exclusions for the ‘interoperable railway’. As the Department’s policy for interoperability became clearer, changes to definitions were made to clarify the scope and the interface between the Safety Regulations and the Interoperability Regulations, and this has been built on in guidance for both sets of regulations.

7.7 There were also concerns over the role of the infrastructure manager. Network Rail (NR) was particularly concerned that provisions in RSCR that require railway operators to comply with NR’s safety case were not being continued. Such a provision would have been contrary to the RSD, which requires all players to cooperate with each other as equal players in a shared system. Specific requirements have been included in the Safety Regulations, with supporting guidance, to help explain the new provisions.

7.8 There were other minor concerns regarding the detail of the process for the application of safety certificates, for example, on whether certificates could be obtained by a group of companies representing a number of subsidiaries. The applications process has been designed to enable a flexible approach, as operations to be certified/authorised will vary considerably in terms of scope and extent.

- 7.9 There was particularly good support for the transitional arrangements, for example from the RSCR to the safety certification regime. In view of the complexity of the arrangements a further consultation letter was issued to clarify the approach, which is now supported by extensive guidance.
- 7.10 A copy of the HSC consultation document on the Safety Regulations, and an analysis of the responses are available from the HSE website at [www.hse.gov.uk](http://www.hse.gov.uk) until 1 April 2006 and from the ORR website at [www.rail-reg.gov.uk](http://www.rail-reg.gov.uk) thereafter.
- 7.11 Although there was overall support for the implementation of the RSD, the inclusion in the Safety Regulations of separate continuing national provisions caused some concern amongst stakeholders, to the extent that some have argued that the approach would over-implement or 'gold-plate' the RSD. A summary of the concerns is provided in the paragraphs below.
- 7.12 It should be noted that the necessary revised national provisions are outwith the scope of the RSD and that the continuation of 'national safety rules' is specifically anticipated in the RSD (until they can be harmonised across Europe). The Department believes that the benefits from consolidating existing national provisions with the implementation of the RSD significantly outweigh alternative approaches, such as making one set of regulations to implement RSD requirements and separate regulations to cover continuing national provisions.
- 7.13 The three main areas of concern over national provisions arose from:
- the mainline railway sector:- regarding provisions on safety critical work;
  - the mainline railway sector:- regarding the interface between the Interoperability Regulations and the safety verification process to replace ROTS; and
  - the light rail, tram and heritage sectors:- regarding the decision to revoke ROTS and introduce a new process for safety verification.
- 7.14 Most respondents to the consultation questioned whether there was a need for separate requirements for safety critical workers, and maintained that the issue should be covered by the general requirements in the SMS relating to competence. That said, most respondents agreed that the impact of fatigue needed to be addressed but not necessarily through a railway specific ACOP. HSC considered the public's expectations for managing this aspect of railway safety and reaffirmed its decision that there needed to be specific regulation of safety critical work. Although the provisions for safety critical work were approved by HSC in March 2005, HSE continued to listen to stakeholders' concerns over detailed drafting points in the regulations. As a result, drafting adjustments were made to clarify that the

requirements would not have to apply at every step along the supply chain, but were aimed at ensuring that the final product, fitment or action would be undertaken competently and safely.

- 7.15 When HSC consulted on the Safety Regulations in 2004, it was anticipated that the safety elements of the design verification process in the Interoperability Regulations would supersede the requirements in ROTS to approve new works, plant and equipment for the mainline railway. In response to this, HSE proposed a revised process for safety verification to be applied to non-mainline railways and other transport systems. The process was designed to be applied in a proportionate way to the transport system in question, taking account of risk, and catered for second party (in-house) verification (depending on requirements to assure independence) or third-party independent verification.
- 7.16 During 2005 it became clear that the Department's approach to interoperability would only assure design verification for the Trans European Network (about 40% of the network by track miles). The Department, with HSC's agreement, included a proposal in its consultation on interoperability that the safety verification requirements in the Safety Regulations be extended to cover the mainline.
- 7.17 Mainline operators became concerned that there would be two parallel processes for verification, with a potentially unclear interface. The HSE worked with mainline operators to develop the safety verification process to address their concerns. As a result, the requirements for safety verification were incorporated into higher-level requirements for a SMS. Interface issues are dealt with in the guidance for both the Safety Regulations and the Interoperability Regulations.
- 7.18 Operators such as London Underground and other metros welcomed the proposals for safety verification (including the changes in 2005), but the light rail and heritage sectors continued to be opposed. Light rail operators were concerned that they could not rely on safety verification by infrastructure constructors because of commercial pressures to handover a system to the operators with both operational and, potentially, safety risks unresolved. However, Her Majesty's Railways Inspectorate (HMRI) will have a key role in ensuring that all parties comply with the safety requirements in the regulations. In subsequent discussions, light rail representatives have conceded that the safety verification process is not a problem in principle, for those aspects of work that are within the direct control of an operator.
- 7.19 However, the heritage sector remains opposed to the introduction of safety verification. The sector does not support the withdrawal of the ROTS process, where HMRI formally approves new works, plant and equipment, particularly since the heritage sector is mostly exempt from the current charging regime for this type of verification work. Larger

heritage operators are likely to have the appropriate expertise to perform in-house (second-party) safety verification, i.e. appoint an employee or volunteer as a competent person to complete a written scheme of verification. However, smaller heritage operators might not be able to take this option because they might not retain the expertise to fulfil the competent person role. Such operators will need to source independent third party expertise.

- 7.20 It might seem convenient for the heritage sector to effectively pool its expertise for the benefit of all operators, or for larger operators to lend or hire their competent persons to smaller operators. However, this might not prove possible as a larger heritage operator, or a ‘voluntary’ competent person in his own right, would need to obtain Professional Indemnity (PI) insurance for the purposes of providing services to a third party. Such cover could transfer significant cost to operators, as PI products are often tied to a minimum premium that might not prove cost effective for competent persons working on an ad hoc basis. Additionally, a competent person (or his employer) offering third party services *from within the heritage sector* might not be able to provide sufficient security to cover the excess in the event of a claim against them. Consequently, insurance providers might not find it attractive to provide PI products to competent persons working solely within the sector and offering third-party services, although this cannot be confirmed until the market is properly tested. HSE officials are continuing to explore this issue with the insurance industry.
- 7.21 In any event, all heritage operators should be able to source independent third party expertise from specialist professional contractors serving the wider railway industry. Verification services would be charged at commercial rates, and this was known to be a cost when the Safety Regulations were developed. The cost will need to be worked into future plans for expansion of heritage networks, as is the norm for most businesses. However, the safety verification process will only be necessary when the introduction of new and altered works, plant or equipment would create a new or significant increase in risk.
- 7.22 It should be noted that given the typically low risk nature of heritage operations, and the common use of speed restrictions of 25mph (40kph), projects that introduce significant risk (the threshold for applying safety verification requirements) are likely to be limited in number. The safety verification process is not expected to have any other insurance cost implications, for example, on premiums for public liability cover for heritage operators, as the risk arising from safety verification is only one of many risks to be controlled by the operator.
- 7.23 When considering regulatory changes, it is Government policy to apply the principles of good regulation. One principle is to ensure that the level and type of regulation is proportionate to the risks involved. Direct approvals by the regulator should only be required for the highest risk areas, where the cost to the taxpayer is usually recovered

through the regulator's charging regime. High-risk areas do not, in HSC's view, include this aspect of railway operations. It is HSC's policy that those who introduce new or altered products/services are best placed to ensure that risks are properly controlled. The approach on safety verification will have the additional benefit of enabling HMRI to focus its resources on higher risk issues, to the benefit of both railway workers and the travelling public. The safety verification process also provides increased flexibility for mainline operators, where interoperability does not apply. Although third party verification may introduce some additional cost to the heritage industry, HMRI will of course continue to be available to give general advice to heritage operators, as with all railway operators.

- 7.24 However, in light of concerns raised, the Minister for Transport has agreed with HSC that for both tramways and heritage railways the transition period for making approvals applications under ROTS be extended to 2008 and the transition period for closing out projects undergoing approval will be extended to 2010. During the transition period, ORR will work with both sectors, the insurance industry and other interested parties, to help test the insurance market, address issues on competency and availability of standards, and to provide assurance that the safety verification process can work for heritage railways and tram operators. In the event that no sustainable method of applying safety verification can be developed for these sectors by 2010, ORR will consider revisiting the options on how best to address the issue.
- 7.25 A Regulatory Impact Assessment (RIA) for the Safety Regulations is attached at Annex B and is available from the HSE website at [www.hse.gov.uk](http://www.hse.gov.uk) until 1 April 2006 and from the ORR website at [www.rail-reg.gov.uk](http://www.rail-reg.gov.uk) thereafter. The RIA was amended to take account of responses to HSC's consultation in 2004, and had an additional note appended to it (attached at Annex B1) following the change of approach to safety verification.
- 7.26 The regulation of railways is always a major issue of interest to the public. Although there has been little media interest in the development of the Safety Regulations overall, there has been significant interest in February (2006) regarding the implications for the heritage sector. This appears to have been partly due to a misunderstanding of the requirements, particularly on the criteria for the application of safety verification, which only applies to projects that create new or significantly increased risk. For heritage operations, the application of safety verification is expected to be fairly rare.
- 7.27 With respect to the Training Services Regulations, the Department had originally intended to implement the requirement of Article 13 to provide for access to training services for train drivers through the Railways Infrastructure (Access and Management) Regulations 2005 (SI 2005/3049). However, in light of concerns raised during the



consultation, the Department realised that it would not be appropriate to implement the Article until the rest of the RSD was transposed because the regulations relied on terms and concepts that would be defined in the Safety Regulations. The Department decided to remove the provision from the draft of the Access and Management Regulations and implement it at the same time as the rest of the RSD via the Training Services Regulations.

- 7.28 The Department consulted on providing access to training facilities for train drivers as part of its consultation exercise on the Access and Management Regulations. The Department sent out over one hundred and seventy copies of the consultation paper. Twenty-nine responses were received (including all of the key rail industry stakeholders). An analysis of the responses was completed and consultees' views taken into consideration. A copy of the consultation report is available on the Department's website at [www.dft.gov.uk](http://www.dft.gov.uk).
- 7.29 The Department's consultation document specifically asked whether consultees were content with the inclusion of a reference to national safety rules and safety critical tasks in the absence of the Safety Regulations and whether the draft regulations afforded the rights to apply for access as envisaged by the Directives (RSD and 'Access').
- 7.30 Although some respondents did not agree with the inclusion of the definition of safety critical tasks in the Access and Management Regulations, most respondents agreed that the draft regulations did afford the rights to apply for access as envisaged by the RSD. One respondent commented that contractors of an infrastructure manager who do not have to apply for their own safety certificate, as they are authorised under the infrastructure manager's safety certificate, should also have a right of access to training facilities. The Department agreed that this is the intention of the RSD and that the definition of 'infrastructure manager' used in RSD, which is adopted in these regulations, ensures that the rights of access also apply to the staff of contractors who undertake safety critical task on behalf of Network Rail.
- 7.31 One respondent also queried what was covered by the term 'training facilities'. The Training Services Regulations have been amended to clarify that it is access to training services that is being provided and states the services that must be offered. The Training Services Regulations also make it clear that such access includes access to facilities that form a part of the training service, such as classrooms or simulators. The reference to national safety rules has been removed from the Training Services Regulations because that part of Article 13 is being implemented in the Safety Regulations.

## 8. Impact

- 8.1 A Regulatory Impact Assessment (RIA) for the Safety Regulations is attached at Annex B and includes further information resulting from consultation. The Annex includes additional information (in Annex B1) on the impact of extending safety verification to the mainline and a standalone RIA (at Annex B2) for the Training Services Regulations.
- 8.2 The impact on the public sector is minimal. For the Safety Regulations, the revocation of RSCR and ROTS is expected to help streamline administrative procedures for ORR in due course, although this will be off-set in the first few years by the initial impact of implementing RSD and the rest of the legislative reform package.
- 8.3 ORR is also the main public body affected by the Training Services Regulations, as they place a duty on the regulatory body to deal with appeals. As ORR already deals with appeals on other matters it is anticipated that any extra work created by the implementation of the Training Services Regulations will be accommodated within existing resources.

## 9. Contacts

Queries on the regulations referred to in this Explanatory Memorandum can be forwarded to the following contacts:

***With respect to the Safety Regulations:***

Gabriel Hammond at the Health and Safety Executive  
(Tel: 020 7717 6531 or email: gabriel.hammond@hse.gsi.gov.uk)

***With respect to the Training Services Regulations:***

Leo McDaid at the Department for Transport  
(Tel: 020 7944 5595 or e-mail: leo.mcdaid@dft.gsi.gov.uk )

## Transposition Note

**Transposition Note for Council Directive 2004/49/EC on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification (Railway Safety Directive).**

This Transposition Note outlines how the main elements of Directive 2004/49/EC (the Railway Safety Directive) are implemented in Great Britain by the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (the “Safety Regulations”) and the Railways (Access to Training Facilities) Regulations 2006 (the "Training Services Regulations").

Some of the requirements of the Railway Safety Directive have already been implemented through: the Railways (Interoperability) Regulations 2006 (the “Interoperability Regulations”), the Railways and Transport Safety Act 2003 and the Railways (Accident Investigation and Reporting) Regulations 2005 (the “RAIB Regulations”).

The Safety Regulations and the Training Services Regulations implement those parts of the Railway Safety Directive which are not already implemented, and also make consequential amendments to some existing domestic legislation to ensure consistency with the Safety Regulations in the area to which they apply. Unless stated otherwise, references to ‘Regulations’ in the ‘Implementation’ column are those contained in the Safety Regulations. A scrutiny history of the EC’s Second Rail Package, of which the Railway Safety Directive forms part, is provided in Annex A1.

References to the “safety authority” are references to the Health and Safety Executive (HSE) until 31 March 2006 and to the Office of Rail Regulation (ORR) thereafter. Responsibility for rail safety transfers from HSE to ORR on 1 April 2006, and this is provided for by the Health and Safety (Enforcing Authority for Railways and Other Guided Transport Systems) Regulations 2006 (the “Enforcing Authority Regulations”).

Article	Objective	Implementation	Responsibility
<i>Article 1 - Purpose of the Directive</i>			
1	Purpose of Directive.	No action required – requirements that support the purposes of the Directive are detailed below.	
<i>Article 2 - Scope of the Directive</i>			

Article	Objective	Implementation	Responsibility
2.1	Application of the Railway Safety Directive to Member State railways.	<p>The Safety Regulations are made under the Health and Safety at Work, etc. Act 1974, and the Training Services Regulations are made under section 2(2) of the European Communities Act. Both sets of regulations apply to Great Britain.</p> <p>Separate provisions (for the purposes of Railway Safety Directive) are being made for Northern Ireland and the Channel Tunnel.</p>	Secretary of State
2.2 (a)	Exclusion from the requirements of metros, trams and other light rail systems, at the discretion of the Member State.	<p>Regulation 2(1): includes a definition of “mainline railway” - part (b) of the definition excludes functionally separate “railway” infrastructure (such as metros and other light rail systems).</p> <p>Regulation 2(1): includes a definition of “railway” that specifically excludes tramways.</p>	Secretary of State
2.2 (b)	Exclusion from the requirements of networks that are ‘functionally separate’ (local, urban or suburban), at the discretion of the Member State.	<p>Regulation 2(1): includes a definition of “mainline railway” - part (a) of that definition excludes railways that are for local or historical use and part (b) excludes (any other) functionally separate infrastructure.</p> <p>Regulation 2(3) of the Safety Regulations and Regulation 1(2)(a) of the Training Service Regulations: exclude the Channel Tunnel from the requirements of the Safety Regulations.</p>	Secretary of State

Article	Objective	Implementation	Responsibility
2.2 (c)	Exclusion from the requirements of privately owned (and used) infrastructure, at the discretion of the Member State.	Regulation 2(1): includes a definition of “transport system” that specifically excludes a range of privately owned infrastructure.	Secretary of State
<b>Article 3 – Definitions</b>			
3	<p>Definitions.</p> <p>Policy objective: to maintain consistency of terms across railway legislation, as far as possible, whilst allowing for effective consolidation of regulations that implement European requirements for mainline railways with continuing or revised national requirements for safety on railways other than the mainline and other transport systems).</p> <p>In the Regulations:</p> <p>“transport systems” includes systems other than mainline railways (e.g. trams, metros, light rail, etc.).</p> <p>“transport operators” includes “infrastructure managers” and “transport undertakings” (only infrastructure managers controlling mainline railway infrastructure are within the scope of the Directive).</p> <p>“transport undertaking” includes operators of vehicles on a wide range of transport system infrastructure, but only transport undertakings operating on mainline railway infrastructure are within the scope of the Directive, and such transport</p>	<p>Regulation (2) uses where possible the definitions used in the Directive.</p> <p>However, overarching definitions such as “infrastructure manager” have a wider meaning in the Safety Regulations as the scope of those Regulations includes “transport systems”, “transport operators” and “transport undertakings”, some of which are outside of the scope of the Railway Safety Directive. The Railway Safety Directive’s requirements for the mainline railway and national requirements for other transport systems are separately assigned, where appropriate, by using the term “mainline railway” where only the Directive’s requirements apply).</p> <p>The Safety Regulations do not use the term “railway undertaking”. Instead, Regulation 2(1): includes a definition for “transport undertaking”, which for the purposes of the Directive, takes the Directive’s meaning of “railway undertaking” (but for the general purposes of the Safety Regulations, has a wider meaning to include</p>	Secretary of State

Article	Objective	Implementation	Responsibility
	undertakings are the “railway undertakings” referred to in the Directive.	<p>transport undertakings other than on the mainline railways). For ease of cross-reference to the Railway Safety Directive, the term “railway undertaking” is used below in this column, as if it had appeared in the Safety Regulations.</p> <p>The term “railway undertaking” is, however, used in the Training Services Regulations and is entirely consistent with the Directive.</p>	
<b><i>Article 4 - Development and improvement of railway safety</i></b>			
4.1	Ensure that railway safety is generally maintained and, where reasonably practicable, continuously improved.	<p>Overarching responsibilities under the Health and Safety at Work, etc. Act 1974 and Regulations made under it, for example, the Management of Health and Safety at Work Regulations 1992 already exist, as well as other specific regulations for railways.</p> <p>Regulation 5: includes requirements for a safety management system, and is supported by paragraph 1(d) of Schedule 1, which requires the dutyholder to demonstrate how continuous improvement of his safety management system is ensured.</p>	<p>Secretary of State (Department for Work and Pensions) for general health and safety regulations</p> <p>Secretary of State (Department for Transport) for railways regulations</p>
4.2	Ensure that (safety) measures take account of the need for a system-based approach.	The Safety Regulations have been developed to interface with regulations that promote a system-based approach, for example, the Interoperability Regulations.	Secretary of State

<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
4.3	Ensure that railway undertakings and infrastructure managers implement necessary risk control measures.	Regulation 19: includes specific requirements to undertake risk assessments and apply measures to control risk.  Regulation 5(1)(d): requires that safety management systems ensure the control of all relevant categories of risk.	Secretary of State
4.3	Ensure that infrastructure managers and railway undertakings cooperate with each other (for the purposes of risk control).	Regulation 22: includes duties for (all players on the railway system) to co-operate with each other.	Secretary of State
4.3	Ensure that railway undertakings and infrastructure managers apply national safety rules and standards.	Regulation 5: includes requirements for a safety management system, and is supported by paragraph 2(c) of Schedule 1, which requires the dutyholder to demonstrate its procedures to meet national safety rules, relevant standards, and other safety requirements.	Secretary of State
4.3	Ensure that infrastructure managers and railway undertakings establish safety management systems in accordance with this Directive, etc. (refer to entry for Article 9 on safety management systems).	Regulation 5: sets out the requirements for a safety management system.	Secretary of State
<b><i>Article 5 - Common safety indicators</i></b>			
5	Common safety indicators	Schedule 3: includes a list of common safety indicators, substantially reproducing Annex I of the Railway Safety Directive.	Secretary of State

<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
5.1	Collection of information on Common Safety Indicators (CSIs) to facilitate the assessment of Common Safety Targets (CSTs).	Regulation 20: includes requirements to report accident data in annual reports, including in 20(c), indicators for mainline railways.	Secretary of State (regulations)
5.2	Revision of CSIs in Annex I of the Directive by the European Railway Agency (ERA).	The safety authority is involved in ERA's working groups to develop CSIs.	European Railway Agency
<b>Article 6 – Common safety methods</b>			
6	Common Safety Methods (CSMs).	Regulation 2(1): provides a definition of “common safety methods”.  Regulation 5(1)(b): requires safety managements systems to apply relevant parts of CSMs (which will take effect when CSMs become available).	Secretary of State
6.1, 6.3 & 6.4	Development of CSMs.	The safety authority is involved in ERA's working groups to develop CSMs.	European Railway Agency
6.2	Examination of existing CSMs.	The safety authority is involved in ERA's working groups to develop CSMs.	European Railway Agency
6.5	Creation of national provisions to implement CSMs.	Regulation 19(2): anticipates the future use of published CSMs, for the purposes of making a risk assessment.	Secretary of State
<b>Article 7- Common safety targets</b>			
7	Common safety targets	Regulation 2(1): provides a definition of	Secretary of State



<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
		“common safety targets”.	
7	Development of Common Safety Targets (CSTs).	The safety authority is involved in ERA’s working groups to develop CSTs.	European Railway Agency
7.6	Creation of national provisions to implement CSTs.	Regulation 5(a)(i) anticipates the role of the safety management system to demonstrate how CSTs will be met.	Secretary of State
<b><i>Article 8 - National safety rules</i></b>			
8.1	Establishment and publication of National Safety Rules.	Existing primary and secondary legislation is available from the Office of Public Sector information website at <a href="http://www.opsi.gov.uk">www.opsi.gov.uk</a>	Office of Public Sector Information
8.2	Notification of National Safety Rules to the European Commission.	Existing relevant (primary and secondary) legislation was notified to the European Commission in April 2005.  The extent of non-legislative ‘national rules’ to be notified to the European Commission is yet to be clarified at European level.	Department for Transport (notification)  European Railway Agency (scope of national safety rules)  European Commission
8.3	Evaluation of National Safety Rules.	No action required.	European Railway Agency
8.4	Notification of amendment to National Safety Rules.	Following coming into force, the Safety Regulations will be notified as a National Safety Rule (and any provisions revoked by the Regulations will be de-notified).	Department for Transport

<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
8.5	Monitoring of new National Safety Rules.	No action required.	European Commission.
8.6 & 8.7	Introduction of new National Safety Rules (after the development of CSTs).	Administrative action only (if required, and in any event, not until after the development of CSTS).	Department for Transport European Commission
<b>Article 9 - Safety management systems</b>			
9	Safety management systems	Regulation 2(1): provides a definition of “safety management system”	Secretary of State
9.1	Establishment of safety management systems (SMS) by infrastructure managers and railways undertakings.	Regulation 3(1)(a): sets up the prohibition on operating a train on the mainline unless a railway undertaking has established and is maintaining a SMS.  Regulation 3(2)(a): sets up the prohibition on the operation (of infrastructure) on the mainline unless an infrastructure manager has established and is maintaining a SMS.  Regulation 5(1)(f): requires the SMS to be documented.	Secretary of State
9.1	Ensure that SMS can achieve Common Safety Targets (CSTs).	Regulation 5(a)(i): requires that the SMS can achieve CSTs (when they become available).	Secretary of State
9.1	Ensure that SMS is in conformity with safety requirements laid down in Technical Specifications for Interoperability (TSIs).	Regulation 5(a)(ii): requires the SMS to be conformity with safety requirements laid down in TSIs.	Secretary of State

Article	Objective	Implementation	Responsibility
9.2	Describe the scope of a SMS.	<p>Regulation 5(c): requires the SMS to meet the requirements of Annex III of the Directive.</p> <p>Schedule 1 describes the basic elements of a SMS.</p> <p>Regulation 5(1)(d)(i)-(ii): requires the SMS to include risks arising from the use of contractors and the supply of maintenance and material.</p> <p>Regulation 5(1)(e): requires the SMS to take into account risks arising as a result of the activities of other persons.</p>	Secretary of State
9.3	Ensure that the <i>infrastructure manager's</i> SMS takes into account the effects of the operations of different undertakings.	Regulations 5(1)(e) and 5(3): require the SMS to take into account risks arising as a result of the activities of other persons (including railway undertakings).	Secretary of State
9.3	Coordination of the infrastructure manager's emergency procedures with railway undertakings.	Paragraph 2(j) of Schedule 1: requires plans of action, in the event of an emergency, to be included in the SMS.	Secretary of State
9.4	Submission of safety report by infrastructure managers and railway undertakings.	Regulation 20: requires infrastructure managers and railway undertakings to report on the topics referred to in Article 9.4 of the Railway Safety Directive.	Secretary of State
<b>Article 10 – Safety certificates</b>			

<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
10	Safety Certificates	<p>Regulation 2(1): includes a definition for “safety certificate”</p> <p>Regulation 2(1): includes a definition for “deemed safety certificate” (as part of the transitional arrangements for migrating from the permissioning regime in the Railways (Safety Case) Regulations 2000 to a safety certification regime under the Safety Regulations.</p>	Secretary of State
10.1	Ensure that railway operators hold a safety certificate before being granted access to the railway infrastructure.	<p>Regulation 3(1)(b) sets up the prohibition on operating on the mainline unless a railway undertaking holds a safety certificate.</p> <p>The operator is required to hold a two-part certificate before operating. Part A certifies the SMS and is transferable across the European Community. Part B certifies the evidence of provisions adopted to enable safe operation in any particular Member State.</p>	Secretary of State
10.2	Ensure that safety certificates confirm the safety authority’s acceptance of the railway undertaking’s SMS.	<p>Regulation 2(1): provides a definition of “Part A of a safety certificate”</p> <p>Regulation 7(4)(b)(i): requires that the safety authority has accepted the SMS.</p>	<p>Secretary of State (regulations)</p> <p>Office of Rail Regulation (SMS acceptance)</p>
10.2	Ensure that safety certificates confirm the safety authority’s acceptance of the provisions adopted by a railway undertaking to maintain safe operation on a	Regulation 7(4)(b)(ii): requires that the safety authority has accepted the evidence of (national) provisions to ensure safety on that particular	<p>Secretary of State (regulations)</p> <p>Office of Rail Regulation</p>

Article	Objective	Implementation	Responsibility
	particular (national) network.	<p>network.</p> <p>Regulation 2(1): provides a definition of “Part B of a safety certificate”</p> <p>Paragraph 2(a) of Schedule 2 defines the provisions that need to be adopted.</p>	(acceptance of provisions)
10.3	Provision of first safety certificate and details of type and extent of operation.	<p>Regulation 7(1): establishes that an application for a first certificate (whether Part A or Part A&amp;B) is to be made to the Office of Rail Regulation.</p> <p>Regulation 7(4)(a): requires the safety certificate to specify the type and extent of the operation for which it is issued.</p>	<p>Office of Rail Regulation (applications)</p> <p>Secretary of State (regulations)</p>
10.4	Allow railway undertakings from other Member States to operate, if they hold a (Part A) safety certificate valid throughout the European Community.	<p>Regulation 3(1)(b) sets up the prohibition on operating on the mainline unless a railway operator holds a safety certificate.</p> <p>A Part A certificate issued by another Member States satisfies the requirements of Regulation 7(4)(b)(i) to have a certified SMS, but the railway undertaking must apply to the Office of Rail Regulation (for a Part B) to certify adoption of (national) provisions, according to Regulation 7(4)(b)(ii).</p>	<p>Secretary of State</p> <p>Office of Rail Regulation</p>
10.5	Enforce a maximum validity of safety certificates of five years.	Regulation 7(4)(c): allows safety certificates to be issued with a validity of no longer than five years.	Secretary of State

Article	Objective	Implementation	Responsibility
10.5	Allow for the renewal of expiring safety certificates, including revisions resulting from a change of type or extent, or as required by the safety authority (following changes to the regulatory framework).	<p>Regulation 8: includes provisions to allow for the amendment of safety certificates (Part A or B):</p> <p>Regulation 9: provides for the issuing of further safety certificates before the expiry of a current safety certificate.</p> <p>Regulation 14(1): allows for the safety authority to direct safety certificate holders to re-apply for a safety certificate.</p>	<p>Secretary of State (regulations)</p> <p>Office of Rail Regulation (renewals/updates)</p>
10.5	Ensure that major changes to the (operating) conditions on which a safety certificate was issued, are notified to the safety authority.	Regulation 13: requires the holder of a safety certificate to notify the safety authority of such changes.	Secretary of State (regulations)
10.5	Allow for the revocation of safety certificates.	<p>Regulation 15(1)(a): requires the revocation of Part A and/or B of safety certificates where the safety authority is satisfied that the conditions on which the certificate was issued are no longer being met.</p> <p>Regulation 15(1)(b)(ii): provides for the revocation of certificates that have not been used (as intended) for a period of one year after being issued.</p> <p>Regulation 15(5)(a) requires the safety authority, where it has revoked a Part B certificate that relates to a Part A certificate issued in another Member State, to inform that other Member</p>	<p>Secretary of State (regulations)</p> <p>Office of Rail Regulation (revocations)</p>

Article	Objective	Implementation	Responsibility
		State's national safety authority of the revocation.	
10.6	Notification to the European Railway Agency (ERA) of the issue, renewal, amendment or revocation of (Part A of) safety certificates.	Regulation 18(1)(a): requires the safety authority to notify ERA of Part A safety certificates that it has issued, renewed, amended or revoked, and the particulars relevant to that certificate as outlined in Regulation 18(2)(a)-(d).	Secretary of State (regulations)  Office of Rail Regulation (communication with ERA)
10.7	Evaluation of the development and harmonisation of safety certification across Europe.	The safety authority is involved in ERA's working groups to develop safety certification.	European Railway Agency.
<b>Article 11 - Safety authorisation of infrastructure managers</b>			
11	Safety authorisations	Regulation 2(1): includes a definition for "safety authorisation"  Regulation 2(1): includes a definition for "deemed safety authorisation" (as part of the transitional arrangements for migrating from the permissioning regime in the Railways (Safety Case) Regulations 2000 to a safety authorisation regime under the Safety Regulations.	Secretary of State
11.1	Ensure that infrastructure managers hold a safety authorisation before being allowed to manage or operate railway infrastructure.	Regulation 3(2)(b) sets up the prohibition on allowing the operation of (or on) mainline infrastructure unless a railway infrastructure manager holds a safety authorisation (and that railway undertakings operating on that infrastructure have safety certificates).	Secretary of State

<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
11.1(a)	Ensure that safety authorisations confirm the safety authority's acceptance of the infrastructure manager's SMS.	Regulation 10(3)(b)(i): requires that the safety authority has accepted the SMS.  Regulation 5(7): details additional requirements for the SMS of the infrastructure manager.	Secretary of State (regulations)  Office of Rail Regulation (SMS acceptance)
11.1(b)	Ensure that safety authorisations confirm the safety authority's acceptance of the provisions adopted by the infrastructure manager to maintain safe operation on a particular (national) network.	Regulation 10(3)(c): requires that the safety authority has accepted the evidence of (national) provisions adopted to ensure the safe design, maintenance and operation of the infrastructure in question.	Secretary of State (regulations)  Office of Rail Regulation (acceptance of provisions)
11.2	Enforce a maximum validity of safety authorisations of five years.	Regulation 10(2)(e): allows safety authorisations to be issued with a validity of no longer than five years.	Secretary of State
11.2	Allow for the renewal of expiring safety authorisations, including revisions resulting from substantial changes to the infrastructure, signalling, energy supply or to the principles of operation or maintenance, or as required by the safety authority (following changes to the regulatory framework).	Regulation 11: includes provisions to allow for the amendment of safety authorisations.  Regulation 12: provides for the issue of further safety authorisations.  Regulation 14(1): allows for the safety authority to direct safety authorisation holders to re-apply for safety authorisations.	Secretary of State (regulations)  Office of Rail Regulation (renewals/updates)
11.2	Ensure that substantial changes to the infrastructure, signalling or energy supply, or to the principles of operation or maintenance are notified to the safety	Regulation 13: requires infrastructure managers to notify the safety authority of relevant changes	Secretary of State (regulations)



<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
	authority.	to the infrastructure manager's provisions.	
11.2	Requires the revocation of safety authorisations where the conditions on which it was granted are no longer satisfied.	Regulation 16(1)(a): requires the revocation of safety authorisations where the safety authority is satisfied that the conditions on which the authorisation was issued are no longer being met.	Secretary of State (regulations) Office of Rail Regulation (revocations)
11.3	Notification to the European Railway Agency (ERA) of the issue, renewal, amendment or revocation of safety authorisations.	Regulation 18(1)(b): requires the safety authority to notify ERA of safety authorisations that it has issued, renewed, amended or revoked, and the particulars relevant to that authorisation as outlined in Regulation 18(2)(a)-(d).	Secretary of State (regulations) Office of Rail Regulation (communication with ERA)
<b><i>Article 12 – Application requirements relating to safety certification and safety authorisation</i></b>			
12.1	Provide requirements relating to applications for safety certificates and safety authorisations, i.e.: decisions on applications, timescales for the decision and information required for the acceptance of a safety certificate or safety authorisation.	Regulation 7(3): requires the safety authority to issue a safety certificate within four months of the original application or to notify the applicant that it has refused the application, and in either case give reasons for its decision.  Regulation 8(4): requires the safety authority to issue an amended safety certificate within four months of the original application or to notify the applicant that it has refused the application, and in either case give reasons for its decision.  Regulation 10(2): requires the safety authority to issue a safety authorisation within four months of	Secretary of State (regulations) Office of Rail Regulation (applications)

Article	Objective	Implementation	Responsibility
		<p>the original application or to notify the applicant that it has refused the application, and in either case give reasons for its decision.</p> <p>Regulation 11(3): requires the safety authority to issue an amended safety authorisation within four months of the original application or to notify the applicant that it has refused the application, and in either case give reasons for its decision.</p> <p>Regulation 17(7): includes, in relation to the above Regulations, provisions to allow for a 28 day consultation period for affected parties on applications for safety certificates and safety authorisations; the four month period to determine applications to not start until all relevant information has been received; and transitional provisions to allow for a reasonable migration from existing permissioning regime in the Railways (Safety Case) Regulations 2000 to a safety certification regime under the Safety Regulations.</p>	
12.2 & 12.3	Provision of guidance on applications for safety certificates and safety authorisations.	Administrative action. The Office of Rail Regulation will make available guidance and advice on applications, including the criteria for assessing applications.	Office of Rail Regulation (applications)
12.3	Allow the safety authority to require that applications for a safety certificate or authorisation are made in	Regulation 21: requires that any application sent to the Office of Rail Regulation be in English.	Secretary of State

Article	Objective	Implementation	Responsibility
	the Member State's language.		
<b>Article 13 - Access to training facilities</b>			
13	<b>Note:</b> The requirements of Article 13 largely relate to provisions for access to training facilities and documentation.	<b>Note:</b> Implementation is largely through the Training Services Regulations, as specifically referred to below. References to 'Regulations' are to the Safety Regulations.	
13.1	Ensure that railway undertakings have fair and non-discriminatory access to training facilities for train drivers and staff accompanying the train, whenever such training is necessary for the fulfilment of a requirement to obtain the safety certificate. The services offered must include training on necessary route knowledge, operating rules and procedures, the signalling and control and command system and emergency procedures applied on the routes operated.	Regulation 4(1)-(2) of the Training Services Regulations: provides for access to such training facilities.  Regulation 5(1) of the Training Services Regulations: provides for a right of appeal to the Office of Rail Regulation in the event that access is refused.	Secretary of State (regulations)  Office for Rail Regulation (appeals)
13.1	Ensure that infrastructure managers and their staff performing vital safety tasks have fair and non-discriminatory access to training facilities.	Regulation 4(3) of the Training Services Regulations: provides for access to training facilities for such staff.  Regulation 5(1) of the Training Services Regulations: provides for a right of appeal to the Office of Rail Regulation in the event that access is refused.	Secretary of State
13.1	Ensure that the provision of training services or, where appropriate, the granting of certificates meets the safety requirements in national safety rules and	Regulation 7(4)(b)(ii): requires that the safety authority has accepted the evidence of provisions to ensure safety on that particular network. In the	Secretary of State (regulations)

Article	Objective	Implementation	Responsibility
	ensure that if training services do not include examinations or granting of certificates (but the safety certificate requires it), that railway undertakings are given access to such certification.	event that the provisions to satisfy the safety authority require certification of training, the railway undertaking will need to procure training services that offer a record of training to fulfil the requirements of those provisions.	Office of Rail Regulation (granting of safety certificates)
13.2	Ensure that if training facilities are available only through the services of one single railway undertaking or infrastructure manager, that the facilities are made available to other railway undertakings at a reasonable and non-discriminatory price, which is cost-related and may include a profit margin.	<p>Regulation 4(4) of the Training Services Regulations: provides for access to such facilities.</p> <p>Regulation 5(2) of the Training Services Regulations: provides for a right of appeal to the Office of Rail Regulation in the event that the price charged is considered unreasonable or discriminatory.</p>	<p>Secretary of State (regulations)</p> <p>Office of Rail Regulation (appeals)</p>
13.3	Ensure that when railway undertakings are recruiting new train drivers, staff on board trains or staff performing vital safety tasks, that they are able to take account of any previously acquired training, qualifications or experience	<p>Regulation 4(5) of the Training Services Regulations: provides for staff to be entitled to have access to, obtain copies of, and communicate all documents attesting to their training, qualifications and experience, obtained in the employment of a previous railway undertaking.</p> <p>Regulation 5(1) of the Training Services Regulations: provides for a right of appeal to the Office of Rail Regulation in the event that access is refused.</p>	<p>Secretary of State (regulations)</p> <p>Office of Rail Regulation (appeals)</p>
13.4	Ensure that railway undertakings and infrastructure managers are responsible for the level of training and	Regulation 7(4)(b)(ii) and Regulation 10(3)(c): require that the safety authority has accepted the	Secretary of State (regulations)

Article	Objective	Implementation	Responsibility
	<p>qualifications of its staff carrying out safety-related work as set out in Article 9 and Annex III.</p>	<p>evidence of provisions for railway undertakings and infrastructure managers to ensure safety (before issuing a safety certificate or safety authorisation).</p> <p>Paragraph 2(e) of Schedule 1: includes, as a basic SMS requirement, to ensure training is provided.</p>	<p>Office of Rail Regulation (acceptance of evidence of provisions to support applications for safety certificates and safety authorisations)</p>
<p><b>Article 14 - Placing in service of in-use rolling stock</b></p>			
<p>14</p>	<p>Allows for rolling stock that has been authorised (according to the Directives on interoperability) in other Member States to be placed into service in another Member State. The railway undertaking wishing to place such rolling stock in service is required to submit to the safety authority, details of the original authorisation, the vehicle's service history including maintenance, alteration and other data, and evidence of its suitability to be introduced onto the (national) network, before authorising the vehicle to operate on the (national) network.</p>	<p>The GB network already has national arrangements in place for 'vehicle acceptance'.</p> <p>Harmonisation of European arrangements for 'cross-acceptance' of authorised vehicles between Member States are subject to ongoing discussion and development at European level (Task Force of the European Commission's Article 21/27 Committee) and will probably be developed by the European Railway Agency, responsible for facilitating the development of interoperability, in future years.</p>	<p>European Commission (TF on cross acceptance)</p> <p>European Railway Agency (future development)</p> <p>Department for Transport (input to EC Article 21/27 Committee)</p> <p>Office of Rail Regulation (implementation)</p>
<p><b>Article 15 - Harmonisation of safety certificates</b></p>			
<p>15</p>	<p>Development of European harmonised application guidance for safety certificates and safety authorisations.</p>	<p>The safety authority is involved in ERA's working groups to develop safety certification.</p> <p>A common format for the certificate/authorisation and for an application form has been developed.</p>	<p>European Railway Agency</p>

Article	Objective	Implementation	Responsibility
		The safety authority is actively engaged in developing European harmonised safety certification criteria and guidance.	
<b>Article 16 - Tasks (Safety Authority)</b>			
16.1	Establish an independent safety authority for railways.	<p>Great Britain has had an independent safety authority function for over 160 years. The Railway Regulation Act 1840 provided inspection powers to the Board of Trade's Railway Department (which became Her Majesty's Railways Inspectorate, or HMRI).</p> <p>HMRI is currently part of the Health and Safety Executive. Responsibility for railway safety from HSE to ORR on 1 April 2006, as provided for in the Railways Act 2005 and the Enforcing Authority Regulations 2006.</p>	
16.2(a) 16.2(b) 16.2(d)	Requires the safety authority to authorise the bringing into service of vehicles and infrastructure within the scope of the interoperability Directives and to supervise their continuing compliance with essential requirements (for safety) in the Technical Specifications for Interoperability (TSIs).	<p>Administrative action.</p> <p>Regulation 12 of the Interoperability Regulations: requires continuing conformity by operators once subsystems are placed in service.</p> <p>Regulations 34 and 35 of the Interoperability Regulations: provide enforcement powers.</p> <p>The Interoperability Regulations assign these tasks to the safety authority and define the safety authority as the Office of Rail Regulation in</p>	<p>Secretary of State (regulations)</p> <p>Office of Rail Regulation (authorisations)</p>

Article	Objective	Implementation	Responsibility
		Great Britain (excluding the Channel Tunnel).	
16.2(c)	Requires the safety authority to supervise the compliance of interoperable constituents with essential requirements (for safety) in the Technical Specifications for Interoperability (TSIs).	Administrative action.  Regulation 36 of the Interoperability Regulations: allows the safety authority to take action to prohibit the use of interoperability constituents that are not, in the opinion of the safety authority, in compliance with essential requirements (for safety).	Health and Safety Executive (high speed until 30 March 2006)  Office of Rail Regulation (high-speed and conventional from 1 April 2006)
16.2(e)	Requires the safety authority to be responsible for the issue, renewal, amendment and revocation of safety certificates and safety authorisations.	The Safety Regulations require that the safety authority (Office of Rail Regulation) will undertake these tasks (refer to entries for Articles 10 and 11).	Secretary of State (regulations)  Office of Rail Regulation (certificates and authorisations)
16.2(f)	Requires the safety authority to monitor, promote and enforce the safety regulatory framework for railways.	Administrative action.	Office of Rail Regulation
16.2(g)	Supervision of the registration of authorised rolling stock, according to the interoperability Directives (quoted in the Directive).	Administrative action. This area is under development by the European Railway Agency.  The safety authority is involved in ERA's working groups to develop a common format for rolling stock registers.	European Railway Agency (develop rolling stock registers)  Office of Rail Regulation (supervise registers)
16.3	Ensure that none of the provisions in Article 16.2 be	None of the tasks of the safety authority, as set	Office of Rail Regulation

Article	Objective	Implementation	Responsibility
	subcontracted to any infrastructure manager, railway undertaking or procurement entity.	out in Article 16, have been transferred or subcontracted to any infrastructure manager, railway undertaking or procurement entity.	
<b>Article 17 - Decision making principles</b>			
17.1	Ensure the safety authority carries out its tasks in an open, non-discriminatory way, including: making timely decisions, communicating decisions, dealing with requests for information, and consulting on changes to the regulatory framework.	<p>Administrative action.</p> <p>Details on decisions on safety certificates and authorisations are included in the entries above for Articles 10 and 11.</p> <p>Regulation 27 of the Safety Regulations: includes a right of appeal against decisions made by the Office of Rail Regulation (ORR).</p> <p>It is ORR's policy to adopt Cabinet Office guidelines for appropriate consultation on new regulatory measures.</p>	Office of Rail Regulation
17.2	Ensure the safety authority is able to carry out its tasks through inspection/investigation and is able to access relevant documentation, installations and equipment.	Provided for under general powers in the Health and Safety at Work Act, etc. Act 1974.	Secretary of State (Department for Work and Pensions)
17.3	Ensure that provisions for safety authority decisions are subject to judicial review.	<p>Regulation 27: includes provisions for appeals against decisions and directions made by the Office of Rail Regulation to be heard by the Secretary of State.</p> <p>In the event that all appeals processes have been</p>	<p>Secretary of State (regulations and appeals)</p> <p>Office of Rail Regulation (appeals)</p>



Article	Objective	Implementation	Responsibility
		exhausted, a claim for judicial review on the lawfulness of a decision can be made to the Civil Courts, according to Part 54 of the Civil Procedure Rules.	Civil Courts (judicial review)
17.4	Facilitation of active exchange of views and experiences between Member State safety authorities, in order to assist in the harmonisation of safety decision-making criteria, particularly with respect to the certification of railway undertakings operating cross-border services.	<p>Administrative action.</p> <p>The safety authority is an active member of ERA's network of National Safety Authorities (NSAs).</p> <p>The Department for Transport is an active member of the EC's Article 21/27 Committee (on safety and interoperability).</p>	<p>European Railway Agency and ORR (network of NSAs)</p> <p>European Commission and Department of Transport (Article 21/27 Committee)</p>
<b>Article 18 - Annual report</b>			
18	Requires the safety authority to publish an annual report on its activities and send it to the European Railway Agency.	Regulation 20(3): requires the Office of Rail Regulation to make such a report.	Secretary of State (regulations)
<b>Articles 19-25 Accident and incident investigation</b>			
19-25	Oblige Member States to create a railway accident investigation body with suitable legal status to: investigate accidents and incidents, report on them, make safety recommendations and communicate information to the European Railway Agency.	These requirements have been implemented by the Railways and Transport Safety Act 2003 (c.20) and the Railways (Accident Investigation and Reporting) Regulations 2005 (the "RAIB Regulations") (SI 2005/1992, amended by SI 2005/3261).	<p>Secretary of State</p> <p>Department for Transport Railway Accident Investigation Branch</p>
<b>Article 26-27 Adaptation of Annexes and committee procedures</b>			

<b>Article</b>	<b>Objective</b>	<b>Implementation</b>	<b>Responsibility</b>
26-27	Allow the Directive's annexes to be adapted to technical and scientific progress, with reference to EC Committee rules and procedures.	No action required.	European Commission
<b><i>Article 28 – Implementing measures</i></b>			
28	Allow Member States to notify the European Commission of measures used to implement the Directive and to allow the European Commission to examine the application and enforcement of provisions for safety certification and safety authorisation and decide whether measures may continue to be applied.	No immediate action required.  Potential administrative action in light of decisions made by the European Commission.	Department for Transport (notification)  European Commission (decisions)
<b><i>Article 29-30 - Amendments to Directives 95/18/EC and 2001/14/EC</i></b>			
29	Amends Directive 95/18/EC.	The Directive referred to (as amended) has been implemented by the Railway (Licensing of Railway Undertakings) Regulations 2005 (the "Licensing Regulations") (SI 2005/3050).	Secretary of State
30	Amends Directive 2001/14/EC	The Directive referred to (as amended) has been implemented by the Railways Infrastructure (Access and Management) Regulations 2005 (the "Access Regulations") (SI 2005/3049).	Secretary of State
<b><i>Article 31 - Report and further community action</i></b>			
31	Requires the European Commission to report to the European Parliament on the implementation of the	No action required.	European Commission

Article	Objective	Implementation	Responsibility
	Directive.		
<b>Article 32 – Penalties</b>			
32	<p>Requires penalties to be applied for infringement of provisions contained in the Directive, and for details of those penalties to be notified to the European Commission.</p> <p>The penalties must be effective, proportionate, non-discriminatory and dissuasive.</p>	<p>Administrative action (notification).</p> <p>The Safety Regulations are made under the Health and Safety at Work, etc. Act 1974 (HSWA) and dutyholders are subject to the penalties provided for in that Act, and following criminal proceedings penalties include fines and imprisonment.</p> <p>The Training Services Regulations contain provisions for a right of appeal to the Office of Rail Regulation (ORR), and decisions made by the ORR are binding on all parties.</p>	<p>Department for Transport (notification)</p> <p>Secretary of State (Department for Work and Pensions) for HSWA</p>
<b>Article 33 – Implementation</b>			
33	<p>Requires Member States to introduce provisions to implement the requirements of the Directive and notify the European Commission of transposition (by 30 April 2006).</p>	<p>This transposition note outlines the main elements of the Railway Safety Directive that are implemented in Great Britain by the Safety Regulations and partly (part of Article 13) by the Training Services Regulations.</p> <p>An independent safety authority for railways has existed in the UK for over 160 years. The Enforcing Authority Regulations will transfer responsibility for railway safety (including HMRI) from HSE to ORR on 1 April 2006.</p>	<p>Secretary of State (regulations)</p> <p>Department for Transport (notification)</p>

Article	Objective	Implementation	Responsibility
		<p>The Interoperability Regulations will implement part of Article 16 (assigning the safety authority to tasks related to ‘interoperability’).</p> <p>The Railways and Transport Safety Act 2003 and the RAIB Regulations have implemented Articles 19-25 of the Directive.</p> <p>The Licensing Regulations incorporated the amendments referred to Directive 2001/14/EC contained in the Directive.</p> <p>The Access Regulations have implemented the amendments referred to in Article 30 of the Directive.</p>	
<b>Article 34 - Entry into force</b>			
34	States the entry into force date of the Directive (original publication date in the Official Journal of the European Union: 30 April 2004).	No action required.	
<b>Article 35 – Addressees</b>			
35	Addresses the Directive to Member States (for implementation).	No action required.	

## **Scrutiny History: Second Rail Package**

### ***Scrutiny history of Documents 5721/02, 5723/02, 5724/02, 5726/02, 5727/02 and 5744/02***

The Explanatory Memorandum (EM) on the Commission's Second Railway Package (5721/02, 5723/02, 5724/02, 5726/02, 5727/02 and 5744/02) was submitted on 5 March 2002.

The House of Commons European Scrutiny Committee considered the EM at their meeting on 20 February 2002, found it to be of legal and political importance and recommended it for debate in Standing Committee A (Report 22 session 01/02, references 23192, 23202, 23193, 23194, 23195, and 23191). It was debated and cleared from scrutiny on 8 May 2002. The Minister wrote to the Chairman on 11 November 2002 and 11 March 2003 with an update on negotiations. The Chairman replied on 20 November 2002 and 19 March 2003 thanking the Minister for keeping the Committee informed. The Minister wrote to the Chairman on 25 November 2003 with an update following the European Parliament's Second Reading. The Chairman replied on 4 December 2003 thanking the Minister for the information. A further letter was sent on 24 March 2004 to inform the Committee of the outcome of conciliation.

The House of Lords Select Committee on the European Union referred the EM to sub Committee B on 19 March 2002 (1096<sup>th</sup> sift). The Chairman wrote to the Minister on 27 March 2002 requesting the results of the consultation. The Minister wrote to the Chairman on 17 October 2002 with an update on the 3 October Transport Council. The Chairman wrote to the Minister on 30 October 2002 asking for a detailed account of how negotiations were proceeding. The Minister replied to the Chairman's letter of 27 March on 11 November 2002 providing information on the consultation exercise. The Chairman wrote to the Minister on 4 December 2002 thanking him for the information provided and requested the Government's views on the points put forward by the Strategic Rail Authority (SRA) response to the package. The Minister wrote to the Chairman on 11 March 2003 with an update on developments in the European Council and European Parliament. In reply to the Minister's letter the Chairman wrote on 21 March 2003 lifting the scrutiny reserve on the document. The Minister wrote to the Chairman with a further update on 9 April 2003, which was considered by the Committee at its meeting on 12 May 2003. The Chairman replied to the Minister on 14 May 2003 thanking him for the update. The Minister subsequently wrote to the Chairman on 25 November 2003 with an update on the European Parliament's Second Reading. A further letter was sent on 24 March 2004 to inform the Committee of the outcome of conciliation.

## REGULATORY IMPACT ASSESSMENT (FINAL)

RAILWAYS AND OTHER GUIDED TRANSPORT SYSTEMS (SAFETY)  
REGULATIONS 2006INDEX

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## PURPOSE AND INTENDED EFFECT

### ISSUE

1. The purpose is to reshape key elements of the existing framework for rail safety driven by European requirements, Public Inquiry recommendations and 'Better Regulation' considerations. As part of the EU's desire to revitalise the railways in line with its common transport policy, the EU is creating conditions in which rail transport can be efficient and compete with other transport modes. Several EC measures are aimed at creating an integrated European railway. This proposal will enable the UK rail industry to be part of this single European railway by implementing the safety management provisions of the EC Railway Safety Directive (2004/49/EC)<sup>1</sup>. Specifically the new framework for rail safety will:
  - implement aspects of the Railway Safety Directive. The purpose of the Directive is to have a common approach to safety, maintaining national standards of rail safety in line with EU requirements, striving for continuous improvement only where reasonably practicable, while the European railway becomes integrated (interoperability<sup>2</sup>). The proposal does not seek to achieve an initial step change in safety. The Directive explicitly covers both passenger and worker safety. In the future the UK must be able to respond to Common Safety Targets (CSTs) to be achieved through Common Safety Methods set by a new European Rail Agency. (The CSTs will be set in light of factors already considered in the UK e.g. risk to passengers and workers, technical and scientific progress, costs and benefits, and societal acceptance of risk);
  - conclude outstanding recommendations from recent public inquiries on the management of railway safety; and
  - bring together and streamline key elements of the existing requirements to secure greater proportionality to risk and reduce costs - three sets of existing regulations will be replaced by one.

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<sup>1</sup> The Directive deals both with regulation of safety and investigation of accidents and incidents on the community's railways. This RIA deals with safety management only.

<sup>2</sup> There are three Directives on interoperability (96/48/EC Interoperability of the trans-European high-speed rail system; 2001/16/EC Interoperability of trans-European conventional rail system and 2004/50/EC Amending Directive on Interoperability. Implementation of these is being led by DfT.

2. The risks addressed are not new – the potential for multiple fatality accidents arising from railway collisions or derailments and for serious injuries to individual passengers and workers arising from the operation of trains and infrastructure - are well known. Major incidents are rare, but where they occur they have a large impact on individuals, society and the national economy arising directly from the deaths and injuries sustained as well as from physical disruption of the railway and indirectly by undermining public confidence in the operation of a key part of the national infrastructure. There is much statistical data on rail safety, which shows a general trend of improvement that has been sustained following privatisation in 1994. (Data are available from HSE’s Annual Reports on safety on the railways in Great Britain and RSSB: Annual Safety Performance Report 2002/03). Although rail is a relatively safe means of transport, in terms of passenger fatalities it is not as safe as bus and coach travel as shown in Table 1.

Table 1 – Fatality Rates Across Different Modes of Transport

Mode	Passenger fatalities per billion passenger:		
	kilometres	journeys	hours
Motor cycle / moped	123	1,910	4,890
Foot	47	43	210
Pedal cycle	35	140	430
Car	2.9	39	120
Rail	0.4	10	21
Bus / coach	0.3	3	7
Air	0.01	23	5
Notes: Data for rail and air are 10-year averages 1992-2001; data for bus/coach are 5-year averages 1997-2001; other data for 2001; data for air includes intercontinental travel.			

Source: Rail Safety and Standards Board Annual Safety Performance Report 2002/3, quoting unpublished DfT figures updated to 2001.

<http://www.rssb.co.uk/pdf/railrepo0203/ASPR02-03.pdf>

3. Implementation of the safety management provisions of the Directive requires replacement of the Railways (Safety Case) Regulations 2000, which while broadly comparable in intention and effect, are different in detail. For example, the permissioning regime in the Directive uses a two-part safety certificate and authorisation scheme in which certificates and authorisations are issued by the safety authority with a maximum of 5 years validity, are revocable, and while changes in arrangements need to be notified to the safety authority, no formal agreement is needed. The safety authority will be the HSE until the Government implements the changes proposed as a result of the recent Government Rail



Review. In contrast the present safety case regime involves one 'one-off' acceptance of a safety case, which is reviewed after 3 years, there is no provision for revocation, and duty holders have to agree 'material revisions' of their arrangements with HSE before making the changes.

4. While the current Railways (Safety Case) Regulations require duty holders to describe and follow a safety management system, the Directive requires railway operators to establish a safety management system that addresses the risks arising from railway operation. The current arrangements in Great Britain are presently supplemented by specific requirements to:
  - control risks arising from the introduction of new and altered trains and infrastructure (The Railways and other Transport Systems (Approval of Works Plant and Equipment) Regulations 1994) (ROTS). These regulations require HSE approval for individual items of railway work, plant and equipment. They are being progressively replaced by the European interoperability requirements, but will continue to apply to, for example, local lines, metros such as London Underground and Docklands Light Railway, heritage railways and trams; and
  - control the risks from workers undertaking safety critical work (The Railways (Safety Critical Work) Regulations 1994) require employers to ensure that employees are competent and fit if they undertake safety critical work, that they carry a formal means of identification, and are not allowed to work such hours as could cause fatigue which could endanger safety.

## **OBJECTIVES**

5. Specific objectives are to:
  - transfer the mainline rail industry from the existing system of railway safety cases to the new European system of safety certification and authorisation within a limited time period of possibly 2 years of the new requirements coming into force;
  - reduce by [possible estimate 25%] the number of railway operators that have to seek formal permission from the safety regulator to work on the railway [these will be mainly infrastructure maintenance contractors working outside the running rail system];
  - produce a set of minimum requirements for a safety management system as the basis of safety certification / authorisation that is more

streamlined, better targeted, less bureaucratic, and quicker for duty holders (which should reduce costs for them given that they are charged for assessments). This will also reduce the amount (not yet quantifiable) of HMRI inspector resource presently devoted to assessment of safety cases, and redirect it towards checking by inspection 'on the ground' that operators are properly controlling the risks arising from their operations;

- for the parts of the railway industry outside the mainline railway (i.e. the non-mainline railway including London Underground Ltd (LUL), tramways, heritage railways), remove the existing requirement for formal approval by the safety regulator before the introduction of new or altered works, plant or equipment, and replace it by a more targeted requirement on duty holders to obtain safety verification from a competent person;
- require those who manage, supervise or control the performance of safety critical work e.g. holders of safety certificates / authorisations or their contractors, to ensure that they have arrangements in place that ensure safety critical workers are competent, fit and risks arising from fatigue are adequately managed;
- change the definition of 'safety critical work' from broad job titles to the actual tasks that are safety critical to the safety of the railway;
- remove the requirement for safety critical workers to carry a formal means of identification, resulting in a saving to the industry;
- in the light of recent research, to change the requirements relating to fatigue to extend the provisions to include other factors and not just hours of work; and
- as discussed in paragraph 2, maintain existing levels of railway safety and only where reasonably practicable, continually make improvements gauged by trends in passenger and worker fatalities, and precursor events e.g. signals passed at danger and broken rails.

## **RISK ASSESSMENT**

6 The number of fatalities, major injuries and over-3-day injuries throughout 2001 to 2003 in the railway are shown in Table 2 below.

7. Table 2: UK fatalities, major injuries and over-3-days injuries on the railway<sup>3</sup>

	Reported data			Estimated reporting rate	Estimated actual average
	2001/02	2002/03	Average		
Fatalities	32	50	41	100%	41
Major Injuries	351	349	350	100%	350
Over-3-Days Injuries	2023	2080	2052	70%	2931

8. Table 3, 4 and 5 below show the breakdown of the data in Table 2 by railway operation.

Table 3: UK fatalities, major injuries and over-3-days injuries: mainline railway

	Reported data			Estimated reporting rate	Estimated actual average
	2001/02	2002/03	Average		
Fatalities	25	42	33.5	100%	33.5
Major Injuries	315	304	309.5	100%	309.5
Over-3-day injuries	1467	1581	1524	70%	2177

Table 4: UK fatalities, major injuries and over-3-days injuries: tramways

	Reported data			Estimated reporting rate	Estimated actual average
	2001/02	2002/03	Average		
Fatalities	3	3	3	100%	3
Major Injuries	1	4	2.5	100%	2.5
Over-3-Days Injuries	16	25	20.5	70%	29

Table 5: UK fatalities, major injuries and over-3-days injuries: people movers, metros, heritage and minor railways

	Reported data	Estimated reporting	Estimated actual

<sup>3</sup> Sources for reported injuries and fatalities in Table 2 to Table 5 are: 'Railway safety – HSE's Annual Report on the safety record of the railways in Great Britain during 2001/02, Appendix 2' and 'HSE's annual report on railway safety 2002/03' (see <http://www.hse.gov.uk/railways/statistics.htm>). Data cover national railway, London Underground, trams, heritage railways. They do not include injuries to passengers`.

				rate	average
	2001/02	2002/03	Average		
Fatalities	4	5	4.5	100%	4.5
Major Injuries	35	41	38	100%	38
Over-3-Days Injuries	540	474	507	70%	724

## OPTIONS

9. Seven different options have been considered. Most of the proposed options imply amendments to three current sets of regulations: the Railways (Safety Case) Regulations (RSCR), the Railways (Safety Critical Work) Regulations (RSCWR) and the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations (ROTS). Each option is described and analysed in relation to the impact they have on each of these regulations.
  
10. The option that is adopted in the draft regulations is Option 7 below. Options 1-6 represent a series of technically feasible options, which add to the existing legal framework a successively greater number of the changes represented in Option 7. All options are costed in this RIA, in the interests of transparency and to enable comparisons to be made between different options.

### OPTION 1

- RSCR: apply new regulations concerning safety management, safety certificate and safety authorisation to mainline railway (Network Rail, Train Operating Companies, Freight Operating Companies, contractors operating trains outside possessions). Retain RSCR for metros, heritage and minor railways.
  
- RSCWR: unchanged.
  
- ROTs: revoke without replacement.

### OPTION 2

- RSCR: apply new regulations concerning safety management, safety certificate and safety authorisation to mainline railway (Network Rail, Train Operating Companies, Freight Operating Companies, contractors operating trains outside possessions). Retain RSCR for metros, heritage and minor railways.

- RSCWR: unchanged.
- ROTS: unchanged.

### **OPTION 3**

- RSCR: apply new regulations concerning safety management, safety certificate and safety authorisation to mainline railway (Network Rail, Train Operating Companies, Freight Operating Companies, contractors operating trains outside possessions) and tramways. Retain RSCR for metros, heritage and minor railways.
- RSCWR: unchanged.
- ROTS: unchanged.

### **OPTION 4**

- RSCR: apply new regulations concerning safety management, safety certificate and safety authorisation to mainline railway (Network Rail, Train Operating Companies, Freight Operating Companies, contractors operating trains outside possessions) and tramways. Retain RSCR for metros, heritage and minor railways.
- RSCWR: unchanged.
- ROTS: revoke and replace with system of standard compliance conducted by notified bodies.

### **OPTION 5**

- RSCR: apply new regulations concerning safety management, safety certificate and safety authorisation to mainline railway (Network Rail, Train Operating Companies, Freight Operating Companies, contractors operating trains outside possessions) and tramways. Retain RSCR for metros, heritage and minor railways.
- RSCWR: duty on those who are controllers of safety critical work, extend scope of safety critical work, introduce a requirement that ‘assessors’ of competence and fitness are impartial and objective in their assessments, extend provisions on fatigue through a new ACoP.

- ROTS: revoke and replace with system of standard compliance conducted by notified bodies.

## **OPTION 6**

- RSCR: apply new regulations concerning safety management, safety certificate and safety authorisation to mainline railway (Network Rail, Train Operating Companies, Freight Operating Companies, contractors operating trains outside possessions) tramways, people movers, metros, heritage and minor railways. Revoke RSCR entirely.
- RSCWR: duty on those who are controllers of safety critical work, extend scope of safety critical work, introduce a requirement that ‘assessors’ of competence and fitness are impartial and objective in their assessments, extend provisions on fatigue through a new ACoP.
- ROTS: revoke and replace with system of standard compliance conducted by notified bodies.

## **OPTION 7**

- RSCR: apply new regulations concerning safety management, safety certificate and safety authorisation to mainline railway (Network Rail, Train Operating Companies, Freight Operating Companies, contractors operating trains outside possessions) tramways, people movers, metros, heritage and minor railways. Revoke RSCR entirely.
- RSCWR: duty on those who are controllers of safety critical work, extend scope of safety critical work, introduce a requirement that ‘assessors’ of competence and fitness are impartial and objective in their assessments, extend provisions on fatigue through a new ACoP.
- ROTS: reduce scope and introduce verification by competent person.

## **INFORMATION SOURCES AND BACKGROUND ASSUMPTIONS**

11. Information on costs and benefits have been collected from industry sources (questionnaires were sent out to affected companies and at the time of writing

HSE has had 7 full responses and 21 partial responses), Her Majesty's Railway Inspectorate, Bomel Limited, 'Evaluation of the Railways (Safety Case) Regulations', 2004<sup>4</sup>, the Department for Transport's Economic Note No. 1<sup>5</sup>, 'The costs to Britain of workplace accidents and work-related ill health in 1995/96' (HSE,1999), HSE's annual report on railway safety in 2001/02 and 2002/03<sup>6</sup>, sources within HSE and comments received on the HSC's Discussion Document 'Safety on the Railway – Shaping the Future' and Consultative Document 'Proposals for new safety regulations for railways and other guided transport systems.'

12. Costs have been discounted at a rate of 3.5%<sup>7</sup>. Health and safety benefits have been uprated by 2%, then discounted at 3.5%, giving an effective discount rate of 1.5%. Costs and benefits have been calculated over a ten year appraisal period starting in 2005 when the regulations are due to be introduced.
13. 2003 is the price base year. The choice of base year does not affect the balance of costs and benefits or the conclusions that flow from them. Unless otherwise stated, all cost figures represent present values over the entire appraisal period. Per annum (henceforth, p.a.) figures are normally given in brackets.
14. Costs and benefits are estimated assuming that there is full compliance with existing duties and that there will be full compliance with the proposed regulations (this assumption is further discussed in the uncertainty section).
15. It has been assumed that there will be no new entrants during the appraisal period except for tramways and people movers.
16. Some of the costs to businesses are opportunity costs that are reflected by the loss of output as a result of carrying out new duties. It is assumed that the loss of output is approximately equal to the time spent on carrying out the duty multiplied by the average wage (adding 30% for superannuation and employers' National Insurance contributions<sup>8</sup>).
17. It has been assumed that the number of injuries per year over the appraisal period is equal to the average number of injuries in 2001/02 and 2002/03.
18. Further information on the assumptions made in this RIA is provided below.

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<sup>4</sup> Bomel Limited, 'Evaluation of the Railways (Safety Case) Regulations', 2004.  
<http://www.hse.gov.uk/research/rrhtm/rr192.htm>

<sup>5</sup>[http://www.dft.gov.uk/stellent/groups/dft\\_rdsafety/documents/page/dft\\_rdsafety\\_026183.hcsp](http://www.dft.gov.uk/stellent/groups/dft_rdsafety/documents/page/dft_rdsafety_026183.hcsp)

<sup>6</sup> <http://www.hse.gov.uk/railways/annualreport0203/annualreport.pdf>

<sup>7</sup> [http://www.hm-treasury.gov.uk/media/05553/Green\\_Book\\_03.pdf#page=1](http://www.hm-treasury.gov.uk/media/05553/Green_Book_03.pdf#page=1)

<sup>8</sup> This follows Cabinet Office guidance.

## **EQUITY AND FAIRNESS**

19. Like the existing regulatory requirements, the proposal will place duties on transport operators to have in place the necessary arrangements to establish and maintain safe operation in regard to passengers, other members of the public, and staff. The effect of these arrangements is broadly similar to those in place now, and will not have a differential impact on any societal groups.

## **ATYPICAL WORKERS**

The new regulations will cover some agency workers that are currently excluded, in particular with respect to safety critical work. We expect the number of workers that will come into scope under the new regulation to be relatively small.

## **BENEFITS**

### **HEALTH AND SAFETY BENEFITS**

#### Option 1

20. The refocusing of inspectors' priorities away from a paper based assessment of safety cases to proactive inspection of dutyholders' delivery of safety on the ground should deliver health and safety benefits. The present value cost of all accidents on the mainline railway is £1.32 billion<sup>9</sup> over the appraisal period (£154 million p.a.). It has not been possible to estimate what share of this cost will be saved under this option.
21. Revoking ROTS may yield some disbenefits as a scheme to verify/approve equipment used on non-mainline railways is removed. It has not been possible to estimate the size of these disbenefits.

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<sup>9</sup> The total cost of accidents on the mainline railway has been calculated by multiplying the number of injuries and fatalities shown in Table 3 by their respective unit cost. Unit costs have been taken from the Department for Transport's Highways economic note no. 1 2002 and uprated to the year 2003 by nominal GDP per capita. The resulting cost of a fatality is £1,336,810 while major and over-3-days injuries have been estimated to entail a cost of £150,205 and £11,583, respectively.



## Option 2

22. There may be some health and safety benefits from a refocusing of inspectors' priorities away from assessing safety cases and towards inspecting. The present value cost over the appraisal period of the accidents that this option would contribute to reduce is £ 1.10 billion (£127 million p.a.).

## Option 3

23. Health and safety benefits under this option are the same as under option 2 plus those accruing from bringing tramways into scope. The present value cost of fatal, major and over-three-day injuries in the tramway sector is £44 million over the appraisal period (£5 million p.a.). It is not possible to estimate the reduction in tramway accidents that this option will achieve.

## Option 4

24. Health and safety benefits under this option are the same as under option 3 plus those accruing from replacing the ROTS Regulations with a system of standard compliance control conducted by notified bodies. These benefits should flow from refocusing of HSE inspectors' priorities away from approvals and towards inspecting. It is not possible to quantify these benefits.

25. However, we are able to estimate the cost to society of all injuries and fatalities occurring on the mainline and non-mainline railway (see Table 2). The total present value of all injuries and fatalities over the appraisal period amount to about £1.32 billion (£154 million p.a.).

## Option 5

26. Health and safety benefits under this option are the same as under option 4 plus those accruing from introducing new safety critical work regulations. Health and safety benefits are expected to arise mainly from the extension of scope of the new safety critical work regulations (additional tasks to be considered safety critical and more workers to be covered under the new regime) and from the requirements contained in the new ACoP.

27. The inclusion of additional tasks implies that some health and safety benefits will accrue to those covered by the current regulations as competence, fitness and fatigue will need to be taken into account for these tasks. The increase in the number of workers covered implies that the injury and fatality rates of those not covered by the current regulation will decrease to the same level of those that were previously covered. Unfortunately, only aggregate safety statistics are

available, and it is therefore not possible to quantify the health and safety benefits associated with the extension of scope element of the new safety critical work regulations.

28. However, we are able to estimate the cost to society of all injuries and fatalities occurring on the railway (see Table 2). The total present value of all injuries and fatalities in the railway sector over the appraisal period amount to about £1.32 billion (£154 million p.a.). However, the reduction in fatalities and injuries (and associated cost) on the railway that the new set of safety critical work regulations will bring about is not quantifiable.

#### Option 6

29. Health and safety benefits under this option are the same as under option 5 plus those accruing from bringing people movers metros, heritage and minor railways into the scope of the amendments to the safety case regulations.
30. The present value cost of all fatalities/injuries on people movers, metros, heritage and minor railways is £188 million over the appraisal period (£22 million p.a.). It is not possible to estimate the reduction in this cost that will be attained by option 6.

#### Option 7

31. Health and safety benefits under this option are the same as under option 6 plus those accruing from reducing the scope of ROTS, instead of introducing a system of standard compliance control conducted by notified bodies. Benefits could flow from refocusing inspectors' priorities away from approvals and towards inspecting. It has not been possible to estimate their size.
32. The cost to society of all injuries and fatalities occurring on the railway has a present value of about £1.32 billion (£154 million p.a.).

### **OTHER BENEFITS**

33. No other benefits have been identified under any of the options.

### **TOTAL BENEFITS**

- 34.** All considered options are expected to deliver health and safety benefits (with some disbenefits associated with the revoking of ROTS in option 1). However, for none of the options has it been possible to quantify these benefits.

## **COSTS**

### **BUSINESS SECTORS AFFECTED**

#### Option 1

35. Network Rail, 34 train operating companies (TOCs), 11 freight operating companies (FOCs), and 6 large contractors (infrastructure maintenance or track renewal companies that operate trains outside possessions) fall within the scope of this option. Network Rail employs about 30,000 staff and the majority of TOCs employ between 1,000 and 3,000 workers<sup>10</sup>.
36. Revoking ROTS means that all businesses that currently fall within the scope of ROTS and do not form part of the mainline railway will fall within the scope of this option. They include 9 tramways, 5 metros, 148 heritage railways and 4 people movers. In addition to these businesses, one tramway per year and one people mover every other year are expected to enter operation during the appraisal period.

#### Option 2

37. Under option 2 all businesses affected under the previous option are covered with the exception of those affected by ROTS, as, in this case, these regulations are left unchanged instead of being revoked.

#### Option 3

38. In addition to the businesses affected under option 2, the tramway sector is covered.

#### Option 4

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<sup>10</sup> TOCs data taken from "The comprehensive Guide to Britain's Railways", 6<sup>th</sup> edition. A small number of harbour railways may be caught by the scope of the proposals because they form part of the mainline railway. The cost for these railways has not been estimated because it is not known how many harbour railways form part of the mainline railway and it is possible that Network Rail will become the infrastructure manager for these railways

39. Businesses affected are the same as under option 3 plus those affected by the change in ROTS and not covered by the previous option (that is, people movers, metros, heritage and minor railways). The replacement of ROTS with a compliance system means that an estimated 10 notified bodies will also be affected.

#### Option 5

40. Businesses affected are the same as under option 4 with the addition of any other business carrying out safety critical work. This includes 35 smaller contractors and about 100 companies belonging to the UK railway supply industry.

#### Option 6

41. Businesses affected are the same as under option 5, however, people movers, metros, heritage and minor railways will have to comply with the amendments to the safety case regulations. Currently, 18 have the 148 heritages and minor railways possess a safety case and the remaining 130 railways are exempted from the safety case regulations. Option 7

41. This option will cover all businesses affected by option 6 plus an estimated 15 independent competent people to provide verifications.

### **COMPLIANCE COSTS FOR A 'TYPICAL' BUSINESS**

42. In this section we look at (a) the impact on individual businesses of the proposed changes to the RSCWR (options 5 to 7); (b) the impact of applying the changes to the RSCR to Tics, tramways, people movers and heritage railways; (c) the impact of the different changes to ROTS on tramways; (d) familiarisation costs for individual businesses. When analysing the impact of the different set of regulations on the various businesses, we do not include familiarisation as this is dealt with separately.

#### **(A) IMPACT OF THE NEW SAFETY CRITICAL WORK REGULATIONS ON INDIVIDUAL BUSINESSES (OPTIONS 5 TO 7)**

43. Four different types of costs have been identified in association with the proposed new safety critical work regulations. (1) Placing a duty on those in control of safety critical work; (2) extending the scope of safety critical work; (3) introducing 'assessors' of competence and fitness; and (4) extending provisions on fatigue and introducing a new ACoP. The new safety critical work regulations will also yield some cost savings as the duty to issue ID cards to safety critical workers is removed.

*Duty on those in control of safety critical work*

44. The previous regulations placed duties on employers and the self-employed. The proposed regulations will now place duties on those who manage, supervise or control staff undertaking safety critical tasks. This change would mean that agency staff, supervisors of those undergoing practical training in safety critical work and volunteers would now be classed as safety critical.

*Extending the scope of safety critical work*

45. The definition of safety critical work will now focus on those tasks, which are considered critical to the safety of the railway. This will include some new tasks that stakeholders have identified as needing to be included e.g. installation of components, receiving and relaying of safety critical communications and controlling the supply of electricity to vehicles and the transport system.

### *Introduce assessors of competence and fitness*

46. The proposals will include a duty for safety critical workers to be assessed by a person who is competent to make an impartial and objective assessment. Indications are that duty holders already use assessors for competence and fitness e.g. occupational health professionals. It has been difficult to obtain accurate figures for the number of new assessors that will be required for those already in scope of the existing definitions. The extension of scope will require new assessors of competence and fitness. Based on industry sources, it is estimated that the cost of training a medical practitioner is £500 and that between 0 and 2 medical practitioners will need training in each company. So, the additional cost per business should lie between £0 and £1,000 (£0 and £116 p.a.).

### *Extend provisions on fatigue and ACoP*

47. The main costs stemming from the new provisions and ACoP are: (i) provision of information on risks to health and safety owing to fatigue and on their arrangements for managing fatigue; (ii) review of fatigue management arrangements when there is reason to doubt their effectiveness; (iii) recording of actual hours worked and (iv) active management of overtime and shift exchanges. Many firms already comply with these requirements through their chosen implementation of the current safety critical work regulations. Information from these firms suggests the following annual costs per head: (i) £ 1, (ii) £ 0.03 and (iii) £24. No cost information is available for (iv) (one industry source declared no identifiable costs). For the purpose of this RIA we set the cost of (iv) at £5 per worker per year. The impact of the ACoP on individual businesses will depend on their size and on the extent to which they already comply with the requirements in the existing ACoP.
48. The regulations cover a wide range of businesses of different nature. Moreover, even companies running similar businesses (as TOCs, FOCs, etc.) appear to be very heterogeneous. As a result, the actual cost of the extension of scope incurred by each business varies substantially across firms. This is because (a) new safety critical workers (captured by extending the scope and by placing duties on those in control of safety critical work) will be unevenly distributed across companies and (b) different companies have different unit costs.
49. As for (a), data provided by a sample of companies, which employ about 29,000 safety critical staff, suggest that the total number of safety critical workers will increase by 7.5%. However, the majority of the companies in the sample have stated that their number of safety critical employees will not increase once the new regulations are introduced. This suggests that a large share of the increase in safety critical workers will be concentrated in a relatively small number of firms. In particular, among the firms that will register an increase in their number of safety critical staff, one firm expects the number to increase from 2 to 10-30,

another firm foresees nearly a trebling in their safety critical staff while the remaining firms predict increases between 22% and 70%.

50. As for (b), the ranges of the costs that firms incur for the different cost items associated with the extension of scope are given in the following table

Table 6: unit cost of extending the scope of the safety critical work regulations and placing duties on those in control of safety critical work

	Cost per additional safety critical worker p.a.
Training	£76 to £455
Competence assessment	£45 to £1,136
Fitness assessment	£23 to £150
Record keeping	£23 to £144
Sharing of information	£5 to £59
Total	£172 to £1,944

51. So, as far as extending the scope and placing duties on those in control of safety critical work are concerned, the actual impact on individual businesses will largely depend on how many additional safety critical workers they will have and on their unit costs.

52. Finally, the cost savings associated with the removal of ID cards. Industry data suggest that the costs per worker per year of issuing ID cards lies between £0.7 and £82. Firms that decide to no longer use ID cards are expected to make savings per safety critical worker within this range.

## (B) IMPACT OF THE AMENDMENTS TO THE SC REGULATIONS ON SOME TYPICAL BUSINESSES

### Train Operating Companies (options 1 to 7)

#### *Costs*

53. There are four costs that will be imposed on TOCs: (a) the cost of establishing a safety management system (SMS) and gaining a safety certificate, (b) the cost of

notifications to a safety certificate, (c) the cost of resubmitting a safety certificate every five years, (d) the cost of producing an annual report to HSE. The cost of these requirements for the typical TOC is estimated at £25,000 to £42,000, £650 to £6,500, £23,000 to £40,000, and £3,500 respectively. These are the costs for existing TOCs so the cost of establishing a SMS and gaining a safety certificate is less than the cost of a new safety certificate.

54. TOCs will also incur costs from making substantial changes to their safety certificates but it is assumed that these costs will be completely offset by no longer being required to make material changes to their safety cases.



### *Cost Savings*

55. There are three sources of cost savings for TOCs: (a) the removal of the requirement for a three year safety case review, (b) the removal of the requirement for an annual external audit and (c) harmonisation of the safety certificate Part A across the EU. The cost of three-year reviews is estimated at £42,000 to £133,000<sup>11</sup>.
56. It has not been possible to quantify the cost savings from no longer being required to have an annual external audit or the cost savings from EU harmonisation.

### *Net Costs*

57. The present value of the cost of options 1 to 7 for a typical TOC is minus £81,000 to £50,000 (minus £9,400 to £5,800 p.a.)<sup>12</sup>.

### Tramways (options 3 to 7)

#### *Costs*

58. There are two costs that will be imposed on tramways by options 3 to 7: (a) the cost of establishing a SMS and (b) the cost of maintaining a SMS. Although many tramway operators say they already have a SMS, the costs of these requirements for a typical tramway have been estimated at £12,300 to £21,000 and £1,600 to £15,700 respectively.
59. The total cost for a tramway is £13,800 to £36,700 (£1,600 to £4,300 p.a.).

### People movers (options 6 and 7)

#### *Costs*

60. There are three costs that will be imposed on people movers: (a) the cost of establishing a SMS and gaining a safety certificate, (b) the cost of notifications and substantial changes to a safety certificate and (c) the cost of a five year

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<sup>11</sup> This cost range has been taken from the Evaluation of the Railway (Safety Case) Regulations with outliers excluded where appropriate.

<sup>12</sup> The upper bound for net costs has been estimated by subtracting the upper cost saving bound from the lower cost bound. The lower bound for net costs has been estimated by subtracting the lower cost saving bound from the upper cost bound.

resubmission of a safety certificate. The cost of these requirements is estimated at £14,000, £470 to £4,700, and £6,600 respectively.

61. The total cost for a people mover is £21,100 to £25,400 (£2,500 to £2,900 p.a.).

#### Heritage Railways (options 6 and 7)

62. We consider a heritage railway shifting from being exempted under the SC Regulations to being required to establish a SMS only.

#### *Costs*

63. There are two costs that will be imposed on this group of heritage railways: (a) the cost of establishing a SMS and (b) the cost of maintaining a SMS. The cost of these requirements to the typical heritage railway is estimated at £21,000 and £810 to £8,100 respectively.

#### *Cost Savings*

64. There are cost savings for this group of heritage railways from no longer being required to meet the conditions to be exempted from the safety case regulations. The cost savings from this are estimated at £17,000 (£2,000 per annum).

#### *Net Costs*

65. The net cost for a heritage railway shifting from being exempt to being required to establish a SMS is minus £4,400 to £2,900 (minus £510 to £340 p.a.).

#### **(C) IMPACT ON TRAMWAYS OF CHANGES TO ROTS**

66. Tramways have been selected as the typical business affected by the proposed regulations because between 1998 and 2003 the time taken by HSE on approvals for tramways was greater than the time spent on approving equipment for metros, heritage railways, or people movers.

#### Option 1

#### *Costs*

67. No additional costs.

### *Cost Savings*

68. There are two cost savings: (a) the removal of the requirement for approvals and (b) the removal of the simplified procedure for minor works. These cost savings amount to between £126,000 and £152,000 (£14,700 to £17,700 p.a.).

### *Net Costs*

69. As there are no additional costs, net costs are equal to cost savings.

### Options 4 to 6

#### *Costs*

70. The following costs will be imposed upon tramways by options 4 to 6: (a) the cost of appointing a notified body, (b) the cost of producing an application for a verification, (c) the cost of the notified body verifying the piece of equipment, (d) the cost of producing a technical file, (e) the cost of issuing a verification declaration and (f) the cost of applying to the HSE for an authorisation.
71. The cost of appointing a notified body has been estimated under the assumption that senior managers earning £19.20 per hour<sup>13</sup> (excluding non-wage labour costs) take 40 hours to appoint a notified body. This yields a present value cost of appointing a notified body of £1,000.
72. The cost of producing an application for a verification is assumed to be the same as the current cost to firms of producing an application for an approval. Under the assumption that a tramway will spend between half and one times as many hours preparing an application as HSE spends approving applications, the present value cost of producing an application is £5,600 to £11,200.
73. The cost of a notified body verifying a piece of equipment has been estimated under the assumption that a notified body will cost between one and two times the cost of an approval by HSE. The present value cost of verifications is £100,000 to £199,000.
74. It has not been possible to estimate the cost of establishing a technical file (certificate and technical drawings), of issuing a verification declaration or of gaining an authorisation from HSE. The first two of these costs are likely to be small.

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<sup>13</sup> New Earnings Survey, 2003.

### *Cost Savings*

75. There are two cost savings: (a) the removal of the requirement for HSE to make approvals and (b) the removal of the simplified procedure for minor works. To estimate these cost savings it has been assumed that applications for approvals and for minor works are produced by middle managers earning £13 per hour (excluding non-wage labour costs). The cost saving from the removal of the simplified procedure for minor works has a present value of £21,000 to £42,000 and the cost saving from the removal of approvals has a present value of £105,000 to £111,000.

### *Net Costs*

76. The resulting net cost to tramways of the changes to ROTS envisaged by options 4 to 6 is minus £46,100 to £85,000 (minus £5,400 to £9,900 p.a.).

### Option 7

#### *Costs*

77. There are two costs: (a) the cost of an independent competent person performing a verification and (b) the cost of preparing an application for a verification.

78. The following assumptions have been made to estimate the cost of a verification: (1) the number of hours spent on verification will be twenty percent less than the number of hours currently spent on approvals because the scope of the regulations will be reduced with regard to risk, (2) a middle manager earning £13 per hour (excluding non-wage labour costs) prepares the verification application and (3) the independent competent person charges the current HSE rate of £150 per hour<sup>14</sup>.

79. The present value cost of verification is estimated at £84,200 to £88,700 over the appraisal period.

#### *Cost Savings*

80. There are three sources of cost savings: (a) the removal of the simplified procedure for minor works, (b) the removal of the requirement for HSE to approve new equipment and (c) a potentially less bureaucratic set of arrangements. To estimate these cost savings it has been assumed that applications for approvals are

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<sup>14</sup> The cost of an independent competent person is likely to increase for some businesses and fall for others who perform verification internally.

produced by middle managers earning £13 per hour (excluding non-wage labour costs).

81. The cost saving from the removal of the simplified procedure for minor works has a present value of £21,000 to £42,000 and the cost saving from the removal of HSE approvals has a present value of £105,000 to £111,000.
82. It has not been possible to estimate the potential cost savings for some duty holders from reduced bureaucracy because it is not known what the scale of the savings will be, or how many firms will be able to make these savings.

#### *Net Costs*

83. The resulting net present cost to tramways of the changes to ROTS contained in option 7 is minus £68,200 to minus £37,700 (minus £7,900 to minus £4,400 p.a.).

#### (D) FAMILIARISATION COSTS FOR INDIVIDUAL BUSINESSES

84. Data on familiarisation cost have been provided by a few companies with reference to option 7. The range of costs spans from no cost at all to £1 million. If we use the number of safety critical workers as a proxy for company size, the estimated average familiarisation cost turns out to be around £38 per safety critical worker. Familiarisation costs are one-off implementation costs.
85. It seems reasonable to assume that the familiarisation costs range associated with the other 6 options is either equal or narrower than the one estimated for option 7. In particular, we would expect familiarisation costs to be far lower for options 1 to 3, as they imply a limited change in the regulations. For the same reason, option 4 should also entail relatively small familiarisation costs, while option 5, which includes the changes to the safety critical work regulations, should have familiarisation costs not much lower than those associated with option 7. Option 6 should have roughly the same familiarisation costs as option 7.

## TOTAL COMPLIANCE COSTS TO BUSINESS

86. For each option, we first look at familiarisation costs and then at the specific costs associated with the proposed changes to each set of regulations (RSCR, RSCWR and ROTS).

### OPTION 1

87. As explained above, the only information about familiarisation that is available and comes from industry sources is related to option 7. Familiarisation costs for option 1 are assumed to be much smaller than for option 7 as option 1 entails changes to only one set of regulations (the safety case regulations). Specifically, we assume that familiarisation costs under option 1 are equal to 25% of the familiarisation costs imposed by option 7. That is, £574,00 to £656,000 (£67,000 to £76,000 p.a.).

88. The remaining costs to business associated with this option are those associated with the changes in the safety case regulations plus those arising from revoking ROTS. These are outlined below.

#### Costs associated with changes to the safety case regulations

*Cost: shifting from Safety Case Regime to a Safety Management System (SMS) and Safety Certificate/Authorisation Regime*

89. The cost of establishing a SMS and safety certificate or authorisation<sup>15</sup> is expected to be less than the cost of establishing a safety case because less detailed information is required. It has been estimated that the cost of establishing a safety certificate is 70% of the cost of a new safety case, i.e., 70% of £70,000 to £120,000 for TOCs and FOCs, 70% of £40,000 to £100,000 for large contractors and 70% of £1,050,000 for Network Rail<sup>16</sup>. The cost of transforming a safety case into a safety certificate is estimated at half the cost of establishing a new safety certificate<sup>17</sup>.

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<sup>15</sup> From this point onwards 'safety certificate' will be used to include 'safety authorisation' (the equivalent term for the infrastructure managers) and the establishment of an SMS meeting the Directive's requirements.

<sup>16</sup> The cost of producing and gaining acceptance of a safety case has been taken from 'The evaluation of the Railway (Safety Case) Regulations' except for Network Rail. There is significant cost variation between businesses so ranges have been used which exclude outliers where appropriate.

The cost of producing a safety case for Network Rail has been estimated by HSE because the cost of £5.1 million in the evaluation of the safety case regulations is very high.

<sup>17</sup> £25,000 to £42,000 for TOCs and FOCS, £368,000 for Network Rail and £14,000 to £35,000 for large contractors.

90. In addition to this cost businesses will be required to resubmit their safety certificate every five years (replacing the three year safety case review discussed below as a cost saving), make substantial changes to their safety certificate and notify the HSE of smaller changes to their safety certificate.
91. It has been estimated that a five-year resubmission will cost a quarter of the cost of establishing a new safety certificate<sup>18</sup> and the cost of a notification is a tenth of the cost of a material revision<sup>19</sup>.
92. The cost of substantial changes to a safety certificate has not been estimated because it is expected that they will completely offset the cost saving from no longer being required to make material revisions to their safety case.
93. Costs have been estimated assuming that a notification is made every other year.
94. The total cost of shifting from the safety case regime to the safety certificate regime is £2.9 to £5.0 million (£340,000 to £580,000 p.a.)<sup>20</sup>

*Cost: Annual Report<sup>21</sup>*

95. The cost of producing an annual report has been calculated assuming that the report takes three days (24 hours) to write by a middle manager earning £13 per hour (excluding non-wage labour costs). This suggests that the present value cost to Network Rail, TOCs, FOCs and large contractors of producing annual reports is £182,000 (£21,500 p.a.).

*Cost: Modified Duties on Network Rail*

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<sup>18</sup> £12,000 to £21,000 for TOCs and FOCS, £184,000 for Network Rail and £7,000 to £18,000 for large contractors.

<sup>19</sup> £150 to £1,500 for TOCs and FOCS, £1,000 to £7,000 for Network Rail and £400 to £1,500 for large contractors.

<sup>20</sup> This cost is the sum of: (1) the one off cost of transforming a safety case into a safety certificate, (2) the recurring cost of five year resubmissions, and (3) the recurring cost of notifications.

- (1) The cost of transforming safety cases into safety certificates has been calculated as the sum of the cost of the transformation multiplied by the number of firms for the IC, TOCs, FOCs and large contractors.
- (2) The annual cost of five year resubmissions is the sum of the cost of five year resubmissions multiplied by the number of firms for the IC, TOCs, FOCs and large contractors, divided by 5 to spread the cost of reviews evenly over the appraisal period.
- (3) The annual cost of notifications is the sum of the cost of a notification multiplied by the number of firms for the IC, TOCs, FOCs and large contractors, divided by 2 to spread the cost of notifications evenly over every other year (notifications have been estimated to be made every other year).

<sup>21</sup> The annual cost has been calculated as follows: the number of firms required to make annual reports has been multiplied by the estimated number of hours required to make a report and the wage rate (adding 30% for non-wage labour costs).

96. Under the proposed regulations some of the specific duties placed on Network Rail to monitor train operations and to make recommendations to HSE will be removed. It is expected that the cost saving from the removal of these duties will be offset by new requirements on Network Rail to involve railway undertakings and to continue to undertake some monitoring activity.



## *Cost Savings*

97. There are five sources of cost savings: (a) the removal of the requirement for a three year review, (b) small contractors being taken out of the scope of the regulations, (c) the removal of the requirement for annual external audits, (d) harmonisation of the safety certificate Part A across the EU and (e) removal of charter exemptions.
98. The cost of a three-year review has been estimated at £11,000 to £35,000 for TOCs and FOCs, £103,000 for Network Rail and £9,000 to £40,000 for large contractors<sup>22</sup>. The present value cost saving from removing three year reviews is £1.9 to £5.5 million (£220,000 to £640,000 p.a.)<sup>23</sup>.
99. Small contractors taken out of the scope of the regulations will make cost savings from not being required to undertake a three-year review or to submit material changes to their safety cases. Assuming material changes are submitted every other year the present value cost saving for small contractors is £115,000 to £753,000 (£13,000 to £87,000 p.a.)<sup>24</sup>.
100. It has not been possible to estimate the cost saving from the removal of the duty to have an annual external audit and from the harmonisation of Part A of the safety certificate across the EU<sup>25</sup>.
101. Charter exemptions are assumed to cost the same as an exemption for a heritage railway (£3,500). There are currently about 70 exemptions each year. The cost saving from charters being excluded has a present value of £3.62 million (£420,000 p.a.)<sup>26</sup>.
102. The present value of all cost savings is £5.6 to £9.9 million (£650,000 to £1.1 million p.a.).

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<sup>22</sup> These cost ranges have been taken from 'The Evaluation of the Railway (Safety Case) Regulations' (except Network Rail) with outliers excluded where appropriate.

<sup>23</sup> The annual cost saving has been calculated as follows: the cost of a three year review has been multiplied by the number of firms (for IC, TOC, FOC and large contractors) and divided by 3. Costs have been divided by 3 to spread the cost of a 3 year review over the appraisal period.

<sup>24</sup> The annual cost has been calculated as follows.

- (1) The cost of a 3 year review has been multiplied by the number of firms and divided by 3. Costs have been divided by 3 to spread the cost of a 3 year review over the appraisal period.
- (2) The cost of a material change multiplied by the number of firms divided by two. Costs have been divided by 2 to spread the cost of material revisions over the appraisal period (firms have been estimated to make one material revision every other year)

<sup>25</sup> Cost savings from harmonisation are likely to be small because only a small number of firms operate in both the UK and other EU member states.

<sup>26</sup> The annual cost has been calculated as follows: the estimated number of charter exemptions per year has been multiplied by the estimated cost of a charter exemption.

## *Net Costs*

103. The net present cost of the changes to the safety case regulations contained in option 1 is minus £6.8 million to minus £470,000 (minus £785,000 to minus £54,000 p.a.). The changes consist in replacing, for the mainline railway, the current safety case regime with a less burdensome safety certificate regime. Hence, none of the costs are policy costs.

## Costs associated with changes to ROTS

### *Costs*

104. No additional costs to business.

### *Cost Savings*

105. There are two cost savings from the revocation of ROTS without replacement: (a) the removal of the requirement for HSE approvals<sup>27</sup> and (b) the removal of the simplified procedure for minor works. The present value of these cost savings is £2.8 to £3.3 million (£321,000 to £387,000 p.a.)<sup>28</sup>.

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<sup>27</sup> HSE does not charge for approvals for Heritage Railways so there is no cost saving for Heritage Railways.

<sup>28</sup> To estimate (b) it has been assumed that (i) the number of hours firms spend preparing for the simplified procedure is between 1 and 1.33 times the number of hours spent by HSE on approvals, (2) The number of hours HSE spends on the simplified procedure is between 0.1 and 0.2 times the number of hours firms spend preparing for the simplified procedure, and (3) new firms spend the average number of hours preparing for the simplified procedure (the expected length of time firms spend preparing divided by the number of firms).

The cost saving from the removal of HSE approvals has been calculated as follows:

- (1) current firms: the annual cost saving from approvals is the number of hours HSE spends on approvals per year multiplied by HSE's charge rate, plus, the number of hours firms spend preparing for approvals (between a half and one times the number of hours HSE spends on approvals) multiplied by the wage rate (adding 30% for non-wage labour costs).
- (2) new firms (one tramway per year and one other guided system every other year): the annual cost saving from approvals is the average number of hours HSE spends on approvals for tramways and other guided systems (divided by two because one other guided system enters the market every other year) per year multiplied by HSE's charge rate and the number of firms in the market, plus, the number of hours firms spend preparing for approvals (between a half and one times the number of hours HSE spends on approvals) multiplied by the wage rate (adding 30% for non-wage labour costs) and the number of firms in the market.

The cost saving from the removal of the simplified procedure for minor works has been calculated as follows:

- (1) current firms: the annual cost saving from the simplified procedure is the number of hours HSE spends on the simplified procedure multiplied by HSE's charge rate, plus, the number of hours firms spend preparing for the simplified procedure multiplied by the wage rate (adding 30% for non-wage labour costs).
- (2) new firms (one tramway per year and one other guided system every other year): the annual cost saving from the simplified procedure is the average number of hours HSE spends on the simplified procedure for tramways and other guided systems (divided by two because one

## *Net Costs*

106. As there are no additional costs, net costs are equal to cost savings. Since the changes to the ROTS Regulations consist in revoking them, none of the costs are policy costs.

107. The resulting total costs to business of option 1 are minus £9.5 to minus £2.6 million (minus £1.1 million to minus £300,000 p.a.). All these costs are implementation costs.

## OPTION 2

108. Familiarisation costs are assumed to be the same as under option 1, that is, £574,000 to £656,000 (£67,000 to £76,000 p.a.).

109. Since the only difference between option 2 and option 1 is that ROTS are left unchanged instead of being revoked, all remaining costs to business of option 2 are the same as those arising from the changes to the safety case regime under option 1. Hence, total cost to business of option 2 is minus £6.2 to £0.2 million (minus £718,000 to £22,000 p.a.). All these costs are implementation costs.

## OPTION 3

110. Total familiarisation costs are assumed to be equal to 30% of the familiarisation costs imposed by option 7. That is, £688,000 to £787,000 (£80,000 to £91,000 p.a.). This is 5% more than under the previous option as additional firms (namely, tramways) will have to familiarise themselves with the new regulations.

111. The remaining costs to business are the same as for option 2 with the addition of the costs imposed on tramways by the extension to them of the amendments to the safety case regulations. These costs are outlined below.

### Costs to tramways associated with changes to the safety case regulations

#### *Costs*

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other guided system enters the market every other year) per year multiplied by HSE's charge rate and the number of firms in the market, plus, the number of hours firms spend preparing for the simplified procedure multiplied by the wage rate (adding 30% for non-wage labour costs) and the number of firms in the market.

112. Costs to tramways arise from establishing and maintaining a SMS. This cost has been estimated under the following assumptions: the cost of establishing a SMS is half the cost of a metro establishing a SMS and gaining a safety certificate<sup>29</sup>, the cost of maintaining a SMS is half the cost to a metro of making substantial changes and notifications<sup>30</sup>, the costs of maintaining a SMS are incurred from the second year onwards and one tramway enters operation every year of the appraisal period.

113. The total cost to tramways of establishing and maintaining an SMS is estimated at £260,000 to £800,000 (£30,000 to £93,000 p.a.)<sup>31</sup>.

114. The resulting total cost to business of option 3 is minus £5.8 to £1.1 million (minus £675,000 to £130,000 p.a). Total policy costs lie between £129,000 and £401,000.

#### OPTION 4

115. Familiarisation costs are assumed to be equal to 45% of the familiarisation costs imposed by option 7. That is, £1.0 to £1.2 million (£120,000 to £137,000 p.a.). This is 15% more than under the previous option as a new set of regulations amending the current ROTS is introduced.

116. The remaining costs to business associated with this option are the same as for option 3 plus the costs arising from the changes in ROTS. These costs are outlined below.

#### Costs associated with changes to ROTS

##### *Costs*

117. The following costs need considering: (a) the cost of appointing a notified body, (b) the cost of producing an application for a verification, (c) the cost of the notified body verifying the piece of equipment, (d) the cost of producing a

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<sup>29</sup> £12,000 to £21,000 for a tramway.

<sup>30</sup> £400 to £4100 every year.

<sup>31</sup> There are two sets of costs to this duty, the costs to current firms and the cost to new firms.

(1) Current firms: the one off cost of establishing a SMS has been calculated by multiplying the number of firms by the cost of establishing a SMS. The annual recurring cost of maintaining a SMS (incurred from year 2 onwards) is the cost of maintaining a SMS multiplied by the number of firms.

(2) New firms: The one off cost of establishing a SMS is incurred each year of the appraisal period (it has been assumed that one firm enters the market each year). There is an annual recurring cost of maintaining a SMS for each new firm in the year following its entry into the market.

technical file, (e) the cost of issuing a verification declaration, (f) the cost of applying to the HSE for an authorisation and (g) the cost of a notified body being certified by UKAS.

118. The cost of appointing a notified body is assumed to be the same as the cost of 40 hours for a senior manager earning £19.20 per hour (excluding non-wage labour costs). This has a present value cost of £179,000 (£21,000 p.a.)<sup>32</sup>.
119. The cost of producing an application for a verification is assumed to be the same as the current cost to firms of producing an application for an approval. Under the assumption that businesses will spend between half and one times as many hours preparing an application as the HSE spends approving, the present value cost of producing an application is £123,000 to £246,000 (£14,000 to £29,000 p.a.)<sup>33</sup>.
120. The cost of the notified body making a verification is estimated at between one and two times the cost of HSE making approvals. The present value cost of this is estimated at £2.2 to £4.4 million (£254,000 to £507,000 p.a.)<sup>34</sup>.
121. The cost of a notified body being certified by UKAS has been estimated under the following assumptions: (1) there are 10 notified bodies, (2) each notified body becomes certified for two transport systems and (3) certification costs between £1,500<sup>35</sup> and £11,500<sup>36</sup>. The estimated cost to notified bodies of becoming certified is between £30,000 and £230,000 (£3,500 to £27,000 p.a.)<sup>37</sup>.
122. It has not been possible to estimate the cost of businesses establishing a technical file (certificate and technical drawings), of issuing a verification declaration and

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<sup>32</sup> This one off cost has been calculated as follows:

- (1) Current firms: the number of firms multiplied by the number of hours to perform this task and the wage rate (adding 30% for non-wage labour costs).
- (2) New firms (one tramway every year and one other guided transport system every other year): the number of firms entering the market per year (1.5) multiplied by the number of hours to perform this task and the wage rate (adding 30% for non-wage labour costs).

<sup>33</sup> This cost has been calculated using the same methodology as for calculating the cost to firms of preparing for an approval.

<sup>34</sup> This annual cost has been calculated as follows:

- (1) Current firms: the number of hours HSE spends on approvals multiplied by HSE's charge rate and a factor of 1 to 2 (it has been assumed that notified bodies compliance checking will cost between one and two times as much as HSE approval).
- (2) New firms (one tramway every year and one other guided transport system every other year): the average number of hours HSE spends on approvals for a tramway and half the average number of hours for other guided systems multiplied by HSE's charge rate, a factor of 1 to 2. and the number of new firms in the market per year.

<sup>35</sup> For an existing notified body to become certified to provide verifications for metros, heritage or other guided transport systems. Source UKAS.

<sup>36</sup> For a new entrant to the market to become certified to provide verifications for metros, heritage or other guided transport systems. Source UKAS.

<sup>37</sup> This cost has been calculated as follows: the number of notified bodies multiplied by the number of competencies each notified body becomes certified in and the cost of becoming certified.

of gaining authorisations from HSE. The cost of establishing a technical file and issuing a verification declaration are likely to be small.

### *Cost Savings*

123. There are two cost savings: (a) the removal of the requirement for HSE approvals and (b) the removal of the simplified procedure for minor works. To estimate these cost savings it has been assumed that applications are produced by middle managers earning £13 per hour (excluding non-wage labour costs). The cost saving from the removal of HSE approvals and simplified procedure for minor works has a present value of £2.8 to £3.3 million (£321,000 to £387,000 p.a.)<sup>38</sup>.

### *Net Costs*

124. The net present cost associated with the changes to the ROTS regulations is minus £814,000 to £2.3 million (minus £94,000 to £262,000 p.a.).

125. The resulting total cost to business of option 4 is equal to minus £6.3 to £3.8 million (minus £729,000 to £438,000 p.a.). Total policy costs are the same as under the previous option and lie therefore between £129,000 and £401,000.

## OPTION 5

126. Familiarisation costs are assumed to be equal to 80% of the familiarisation costs imposed by option 7. That is, £1.8 to £2.1 million (£213,000 to £244,000 p.a). This is 35% more than under the previous option as a new set of regulations amending the current safety critical work regulations is introduced.

127. The remaining costs to business associated with this option are the same as for option 4 plus the costs arising from the changes in the safety critical work regulations. These costs are outlined below.

### Costs associated with changes to the safety critical work regulations

#### *Costs*

128. According to Network Rail there are no more than 100,000 workers that are currently covered by the existing safety critical work regulations. On this basis it has been assumed that the number of safety critical workers currently covered lies

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<sup>38</sup> These costs have been calculated as set out above under option 1.

between 80,000 and 100,000. Using the 7.5% figure mentioned in the ‘compliance cost for a typical business’ section yields additional 6,000 to 7,500 safety critical workers. On top of these workers, around 6,000 volunteers working in the heritage railway sector will be affected.

129. As far as the new ACoP is concerned, we assume that a number of companies corresponding to 50% to 70% of all safety critical workers already comply with it. Hence, the total costs are calculated by multiplying the total cost per worker per year given in the ‘compliance cost for a typical business’ section (i.e., ca. £30 in total) by 30%-50% of all safety critical workers under the new regulations. This yields £6.7 to £14.0 million (£780,000 to £1.6 million p.a.).
130. As far as medical competence costs are concerned, it has been difficult to obtain an accurate figure for the number of medical practitioners that will need training. A rough estimate places this number between 50 and 100. As training has been costed at £500 per head (see ‘compliance cost for a typical business’ section), this gives a total cost of between £25,000 and £50,000 (£2,900 and £5,800 p.a.)
131. The cost to business resulting from the extension of scope and from placing duties on those who supervise, control and manage safety critical staff, is calculated by multiplying the average unit costs of the items listed in Table 6 by the number of additional safety critical workers (volunteers excluded). The result of this exercise is summarised in Table 7.
132. As for the 6,000 volunteers in the heritage railway sector, it is expected that a large proportion of them (specifically, between 40% and 60%) are already currently trained and assessed for their competence and fitness. It is also expected that heritage railways already comply with some of the provisions of the ACoP. To account for this, it has been assumed that heritage railways will incur between 40% and 60% of the cost per worker estimated in the ‘compliance cost for a typical business’ section. As a result of these assumptions the extension of scope provisions will entail a cost of £13.0 to £19.5 million (£1.5 to £2.3 million p.a.), while total ACoP costs will be around £624,000 to £936,000 (£72,000 to £109,000 p.a.). This yields a total cost to heritage railways of £13.6 to £20.5 million (£1.6 to £2.4 million p.a.).
133. Total cost savings to business stemming from the removal of ID cards are derived by multiplying the range £1-£8 for the cost per worker per year of issuing ID cards<sup>39</sup> by 50% of the estimated total number of workers covered by the current safety critical work regulations. This yields a cost saving between £344,000 and £3.5 million (£40,000 and £410,000 p.a.). The choice of only 50% of the current safety critical workers as a basis for estimating this cost saving reflects the expectation that some companies will retain the ID card system although they will no longer be legally obliged to do so.

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<sup>39</sup> In the ‘compliance cost for a typical business’ section a larger range was mentioned, namely £0.7 to £82. However, most companies cited costs lower than £10, hence the choice of a narrower range.

Table 7: Total cost to business of extending the scope of the safety critical work regulations and placing duties on those in control of safety critical work.

	Average cost per additional safety critical worker p.a.	Cost per year for all additional safety critical workers (£ million)	Present value over appraisal period (£ million)
Training	£243	£1.5 to £1.8	£12.6 to £15.7
Competence assessment	£228	£1.4 to £1.7	£11.8 to £14.7
Fitness assessment	£67	£0.4 to £0.5	£3.5 to £4.3
Record keeping	£72	£0.4 to £0.5	£3.7 to £4.6
Sharing of information	£20	£0.1 to £0.2	£1.0 to £1.3
Total	£630	£3.8 to £4.7	£32.6 to £40.8

134. Total cost to business of option 5 lies between £44.0 and £79.6 million (£5.1 and £9.2 million p.a.). This results from adding together costs stemming from changes to the safety critical work regulations, familiarisation costs and the non-familiarisation costs of the previous option. Policy costs amount to between £49.6 and £75.3 million (£5.8 and £8.7 million p.a.) and correspond largely to the costs of the changes to the safety critical work regulations.



## OPTION 6

135. Familiarisation costs are assumed to be equal to the familiarisation costs imposed by option 7. That is, £2.3 to £2.6 million (£267,000 to £305,000 p.a.). This is 20% more than under the previous option to account for the extension of scope of the amendments to the safety case regulations.

136. The remaining costs to business associated with this option are the same as for option 5 plus the costs arising from the extension of scope of the changes to the safety case regulations. These are outlined below.

### Costs associated with extension of scope of new safety case regulations

137. The extension of scope will concern people movers, metros, heritage and minor railways.

#### *Costs: Establishing a SMS and Gaining a Safety Certificate (people movers)*

138. People movers are currently outside the scope of the safety case regulations. These businesses will be required to undertake the following: (a) establish a SMS and gain a safety certificate, (b) make notifications and (c) make substantial changes to their safety certificate and (d) resubmit their safety certificate every five years. To estimate these costs it has been assumed that the costs of people movers will be similar to the costs of heritage railways because they are both relatively small operations.

139. The unit costs of establishing a SMS and gaining a safety certificate, making a notification, making a substantial change and a five year resubmission are estimated at £14,000, £10 to £100, £100 to £1,000, and £3,500 respectively.

140. The present value cost of establishing a SMS and gaining a safety certificate is £157,000 to £184,000 (£18,000 to £21,000 p.a.)<sup>40</sup>. Half of these costs are assumed to be policy costs.

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<sup>40</sup> The cost is composed of two elements: the costs to current peplemovers and the cost to new peplemovers.

(1) Current peplemovers: the one off cost of establishing a safety certificate is the number of firms multiplied by the cost of establishing a safety certificate. The annual cost of making notifications (incurred from year one) is the number of firms multiplied by the cost of making a notification divided by 2 (it has been estimated that notifications will be made every other year). The annual cost of making substantial changes (incurred from year one) is the number of firms multiplied by the cost of making a substantial change divided by 2 (it has been estimated that substantial changes will be made every other year). The annual cost of making a five year review (incurred from year one) is the number of firms multiplied by the cost of a

*Costs: Shifting from Safety Case Regime to a Safety Management System (SMS) and Safety Certificate Regime (metros, heritage and other minor railways)*

141. Metros, heritage and other minor railways that currently have safety cases will be required to establish a SMS and gain acceptance of a safety certificate. Metros, heritage and other minor railways will incur the cost of (a) shifting from a safety case to a safety certificate, (b) having to re-submit a safety certificate every five years, (c) making substantial changes to safety certificates and (d) making notifications to a safety certificate. It has been assumed that the cost of substantial changes is completely offset by the current cost of making material revisions to their safety case.
142. To estimate the cost of these changes to metros the following assumptions have been made: the costs for London Underground are the same as a TOC, the cost for other metros of transforming their safety cases into safety certificates is a quarter of 70% of the cost for a TOC<sup>41</sup>, the cost of a five year review is a quarter of the cost of gaining a new safety certificate for a metro<sup>42</sup> and the cost of a notification is a tenth of the cost of a material revision<sup>43</sup> or half the cost of notifications for a TOC.
143. The present value cost of these changes for metros is £138,000 to £251,000 (£16,000 to £29,000 p.a.)<sup>44</sup>.

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five year review divided by 5 (to spread the cost of a five year review over the appraisal period).

- (2) New peplemovers: the cost of establishing a safety certificate is incurred every other year (one people mover enters the market every other year). The annual cost of making notifications (incurred from the first year of entry) is the number of firms in the market in that year multiplied by the cost of making a notification divided by 2 (it has been estimated that notifications will be made every other year). The annual cost of making substantial changes (incurred from the first year of entry) is the number of firms in the market in that year multiplied by the cost of making a substantial change divided by 2 (it has been estimated that substantial changes will be made every other year). The annual cost of making a five year review (incurred from the first year of entry) is the number of firms in the market in that year multiplied by the cost of a five year review divided by 5 (to spread the cost of a five year review over the appraisal period).

<sup>41</sup> £12,000 to £21,000

<sup>42</sup> £6,000 to £11,000 every five years

<sup>43</sup> £75 to £750 every two years

<sup>44</sup> This cost has been calculated as follows:

- (1) The one off cost of transforming a safety case into a safety certificate is the estimated cost (note LUL has higher costs) multiplied by the number of firms.
- (2) The annual recurring cost of a five year review is the cost of a five year review (note LUL has higher costs) multiplied by the number of firms divided by 5 (to spread the cost of five year reviews over the appraisal period).
- (3) The annual recurring cost of notifications is the cost of notifications (note LUL has higher costs) multiplied by the number of firms divided by 2 (it has been estimated that one notification will be made every other year).

144. To estimate the cost of these changes for heritage and other minor railways that have safety cases the following assumptions have been made: the cost of transforming a safety case into a safety certificate is half of 70% of the cost of establishing a safety case<sup>45</sup>, the cost of a five year review is a quarter of the cost of gaining a new safety certificate<sup>46</sup> and the cost of a notification is a tenth of the cost of a material revision<sup>47</sup>.

145. The present value cost of these changes for heritage and other minor railways that have safety cases is £235,000 to £242,000 (£27,000 to £28,000 p.a.)<sup>48</sup>.

*Costs: Heritage Railways Shifting from Exemption to Establishing and Maintaining a SMS (heritage and other minor railways)*

146. Heritage and other minor railways that are currently exempted from having a safety case under the safety case regulations will be required to establish and maintain a SMS under the proposed regulations. The cost of establishing a SMS for these railways is assumed to be 60% of the cost of a safety case (£12,000). The cost of maintaining a SMS is estimated at half the cost to metros of making substantial changes and notifications (£850 to £8,500 every year).

147. The present value of these costs is £2.0 to £5.6 million (£229,000 to £655,000 p.a.)<sup>49</sup>. Half of these costs are considered to be policy costs.

*Cost Savings: Shifting from Safety Case Regime to a Safety Management System (SMS) and Safety Certificate Regime (metros, heritage and other minor railways)*

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<sup>45</sup> £7,000. The Heritage Railway Association in their response to the Discussion Document stated that the cost of producing and gaining acceptance of a safety case for a heritage railway is closer to £20,000 than the £9,000 to £12,000 in the Discussion Documents RIA. The figure of £20,000 has therefore been used as a basis to arrive at this figure (£7000).

<sup>46</sup> £3,500 every five years

<sup>47</sup> £10 to £100 every two years

<sup>48</sup> These cost have been calculated as follows:

- (1) The one off cost of transforming safety cases into safety certificates is the number of firms multiplied by the cost of transforming a safety case.
- (2) The annual recurring cost of five year reviews (incurred from year 1) is the number of firms multiplied by the cost of a five year review divided by 5 (to spread the cost of a five year review over the appraisal period).
- (3) The annual recurring cost of notifications (incurred from year 1) is the number of firms multiplied by the cost of making notifications divided by 2 (it has been estimated that one notification is made per year per firm).

<sup>49</sup> These costs have been calculated as follows:

- (1) The one off cost of establishing a SMS is the number of firms multiplied by the cost of establishing a SMS.
- (2) The annual recurring cost of maintaining a SMS (incurred from year 2 onwards) is the cost of maintaining a SMS (the cost of substantial changes and notifications under the assumption one of each is made every other year) multiplied by the number of firms (it has been estimated that firms will make one substantial change and one notification every other year).

148. Metros, heritage and other minor railways with safety cases will make cost savings from the removal of the requirements for a three-year review and for external annual audits.
149. The cost of a three-year review for a metro has been estimated at half the cost of a three-year review for a TOC<sup>50</sup>. The cost of a three year review for heritage and other minor railways with safety cases is estimated at between £1,000 and £6,000 every three years.
150. The cost saving from the removal of the three-year review requirement is estimated at £95,000 to £301,000 (£11,000 to £35,000 p.a.)<sup>51</sup> for metros and £52,000 to £310,000 (£6,000 to £36,000 p.a.)<sup>52</sup> for heritage and other minor railways.
151. It has not been possible to estimate the cost savings from the removal of the requirement for an external annual audit.

*Cost savings: Shifting from exemption to establishing and maintaining a SMS (heritage railways)*

152. The cost of gaining exemption for heritage railways is assumed to be a sixth of the cost of establishing a SMS every year<sup>53</sup>. The present value of this cost saving is £2.2 million (£260,000 p.a.)<sup>54</sup>.

*Net Costs*

153. The resulting net present cost associated with the extension of scope of the amendments to the safety case regulations is minus £467,000 to minus £6.75 million (minus £784,000 to minus £54,000 p.a.).
154. Total cost to business of option 6 lies between £44.1 and £84.0 million (£5.1 and £9.8 million p.a.). Policy costs amount to between £50.6 and £78.2 million (£5.9 and £9.1 million p.a.).

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<sup>50</sup> £5,500 to £17,500 every three years

<sup>51</sup> This annual cost saving has been calculated as follows: the cost of a three year review (note LUL has higher costs) multiplied by the number of firms divided by 3 (to spread the cost of a 3 year review over the appraisal period).

<sup>52</sup> This annual cost saving has been calculated as follows: the cost of a three year review multiplied by the number of firms divided by 3 (to spread the cost of a 3 year review over the appraisal period).

<sup>53</sup> £3,500 every three years.

<sup>54</sup> The annual cost savings has been calculated as follows: the number of firms has been multiplied by the cost of an exemption divided by three (to spread the cost of an exemption over the appraisal period).

## OPTION 7

155. Familiarisation costs for this option have been estimated on the basis of the information provided by a sample of companies. To calculate the total cost to business of familiarisation the stated and estimated familiarisation cost of the sample companies have been scaled up by using a fraction of the total number of safety critical workers caught by the new regulation. The use only of a fraction (namely, the range 70% - 80%) of all workers accounts for the fact that some companies have declared that they will not incur any familiarisation costs. The estimated familiarisation costs amount to between £2.3 and £2.6 million (£267,000 and £305,000 p.a.).

156. The remaining costs to business associated with this option are the same as for option 5 plus the costs arising from the reduction of scope of ROTS and the use of independent competent persons for verification minus those associated with the system of standard compliance contained in option 5.

### Costs associated with reduction of scope of ROTS

157. The only cost from this option is the cost of verification by an independent competent person. This cost has been estimated under the following assumptions: (1) the number of hours spent on verification will be 20% less than the number of hours currently spent on approvals because the scope of the regulations will be reduced with regard to risk, (2) a middle manager earning £13 per hour (excluding non-wage labour costs) prepares the verification application and (3) the independent competent person charges the current HSE rate of £150 per hour. The resulting cost of verifications has a present value of £1.8 to £1.9 million (£214,000 to £226,000 p.a.)<sup>55</sup>.

### *Cost Savings*

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<sup>55</sup> This cost has been estimated as follows:

- (1) Current firms: the annual cost of the competent person is the number of hours HSE spends on approvals multiplied by 80% and the HSE charge rate. The cost to firms is the number of hours HSE spends on approvals multiplied by 80%, 0.5 to 1 (the estimated number of hours firms spend preparing for verifications compared to competent persons) and the wage rate (adding 30% for non-wage labour costs).
- (2) New firms (one tramway per year and one other guided system every other year): the cost per year of the competent person is the average number of hours HSE spends on approvals for tramways and other guided systems (divided by 2 for other guided systems because one enters the market every other year) multiplied by 80%, the HSE charge rate and the number of new firms in the market in that year. The cost per year to firms is the average number of hours HSE spends on approvals for tramways and other guided systems (divided by 2 for other guided systems because one enters the market every other year) multiplied by 80%, 0.5 to 1 (the estimated number of hours firms spend preparing for verifications compared to competent persons), the wage rate (adding 30% for non-wage labour costs) and the number of new firms in the market in that year.

158. There are three cost savings: (a) the removal of the simplified procedure for minor works, (b) the removal of the requirement for approvals by HSE and (c) a potentially less bureaucratic system. To estimate these cost savings it has been assumed that applications for approvals are produced by middle managers earning £13 per hour (excluding non-wage labour costs).
159. The present value of the cost saving from the removal of HSE approvals and the simplified procedure for minor works is £2.8 to £3.3 million (£321,000 to £387,000 p.a.)<sup>56</sup>.
160. It has not been possible to estimate the potential cost savings for some duty holders from reduced bureaucracy because it is not known what the scale of the savings will be or how many firms will be able to make these savings.

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<sup>56</sup> These costs have been calculated as set out above under option 1.

*Net Costs*

161. The resulting net present cost is minus £1.5 million to minus £0.8 million (minus £174,000 to minus £96,000 p.a.). None of these costs are policy costs.

162. Total cost to business of this option is therefore £43.4 to £81.0 million (£5.0 to £9.4 million p.a.). Policy costs are the same as under option 6, that is, £50.6 to £78.2 million (£5.9 to £9.1 million p.a.).

163. Total cost to business for each option broken down by set of regulations and familiarisation is given in the tables below.

**Table 8a - Total cost to business of each option broken down by set of regulations and familiarisation: present value over appraisal period (£ million)**

		<b>RSCR</b>	<b>ROTS</b>	<b>RSCWR</b>	<b>Familiaris.</b>	<b>TOTAL</b>
<b>Opt. 1</b>	<b>Min</b>	-6.8	-3.3	0	0.57	-9.5
	<b>Max</b>	-0.5	-2.8	0	0.66	-2.6
<b>Opt. 2</b>	<b>Min</b>	-6.8	0	0	0.57	-6.2
	<b>Max</b>	-0.5	0	0	0.66	0.2
<b>Opt. 3</b>	<b>Min</b>	-6.5	0	0	0.69	-5.8
	<b>Max</b>	0.3	0	0	0.79	1.1
<b>Opt. 4</b>	<b>Min</b>	-6.5	-0.8	0	1.03	-6.3
	<b>Max</b>	0.3	2.3	0	1.18	3.8
<b>Opt. 5</b>	<b>Min</b>	-6.5	-0.8	49.4	1.84	44.0
	<b>Max</b>	0.3	2.3	74.9	2.10	79.6
<b>Opt. 6</b>	<b>Min</b>	-6.8	-0.8	49.4	2.29	44.1
	<b>Max</b>	4.3	2.3	74.9	2.62	84.0
<b>Opt. 7</b>	<b>Min</b>	-6.8	-1.5	49.4	2.29	43.4

	<b>Max</b>	4.3	-0.8	74.9	2.62	81.0
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**A negative number indicates a cost saving**



**Table 8b – Total cost to business of each option broken down by set of regulations and familiarisation: per annum values (£ '000)**

		<b>RSCR</b>	<b>ROTS</b>	<b>RSCWR</b>	<b>Familiaris.</b>	<b>TOTAL</b>
<b>Opt. 1</b>	<b>Min</b>	-785	-387	0	67	-1,105
	<b>Max</b>	-54	-321	0	76	-300
<b>Opt. 2</b>	<b>Min</b>	-785	0	0	67	-718
	<b>Max</b>	-54	0	0	76	22
<b>Opt. 3</b>	<b>Min</b>	-755	0	0	80	-675
	<b>Max</b>	39	0	0	91	130
<b>Opt. 4</b>	<b>Min</b>	-755	-95	0	120	-729
	<b>Max</b>	39	262	0	137	438
<b>Opt. 5</b>	<b>Min</b>	-755	-95	5,744	213	5,108
	<b>Max</b>	39	262	8,700	244	9,244
<b>Opt. 6</b>	<b>Min</b>	-795	-95	5,744	267	5,120
	<b>Max</b>	496	262	8,700	305	9,762
<b>Opt. 7</b>	<b>Min</b>	-795	-172	5,744	267	5,043
	<b>Max</b>	496	-96	8,700	305	9,405

**A negative number indicates a cost saving**

## **COSTS TO HSE**

164. Costs to HSE are roughly the same under all options.

## **POLICY DEVELOPMENT**

165. The cost of policy development is expected to be equivalent to the cost of employing a band 4 member of staff every year of the appraisal period. Using the mid point of the pay bracket for a band four member of staff (£25,000 per year) the present value cost of policy development is £213,000.

## **EVALUATION**

166. As part of the policy development process the HSE will evaluate the impact of the proposed regulations. The evaluation is expected to take place 5 years after the implementation of the regulations at a cost of around £100,000. This has a present value cost of £87,000 (£10,000 p.a.)

## **STAFF TRAINING**

167. It is expected that all inspectors in Her Majesty's Railway Inspectorate (HMRI) will receive 2 days training and all other HMRI staff will receive half a days training. Under these expectations, the cost of training HMRI staff has been estimated at £150,000 (£18,000 p.a.).

168. The total cost to HSE under all options considered is £452,000 over the appraisal period (£52,500 p.a.).

## **OTHER COSTS**

169. No other costs have been identified under any of the options.

## **ENVIRONMENTAL IMPACTS**

170. No significant environmental impacts are expected under any of the options.

## **TOTAL COSTS TO SOCIETY**

171. Total costs to society are equal to the sum of total costs to business and total cost to HSE for each option. These costs per annum and over the entire appraisal period are shown in the following tables.

**Table 9a - Total cost to society, balancing percentage and policy costs: present value over the appraisal period (£ million)**

		Cost to business	Cost to HSE	Total cost to society	Balancing percentage*	Policy costs
Opt. 1	Min	-9.5	0.5	-9.1	-0.68%	0
	Max	-2.6		-2.1	-0.16%	0
Opt. 2	Min	-6.2		-5.7	-0.53%	0
	Max	0.2		0.6	0.06%	0
Opt. 3	Min	-5.8		-5.4	-0.47%	0.1
	Max	1.1		1.6	0.14%	0.4
Opt. 4	Min	-6.3		-5.8	-0.44%	0.1
	Max	3.8		4.2	0.32%	0.4
Opt. 5	Min	44.9		44.4	3.36%	49.6
	Max	80.2		80.0	6.05%	75.3
Opt. 6	Min	45.0		44.5	3.37%	50.6
	Max	84.7		84.5	6.39%	78.2
Opt. 7	Min	44.3		43.9	3.32%	50.6
	Max	81.6		81.4	6.15%	78.2

\* A negative balancing percentage indicates an increase in injuries/fatalities.

**Table 9b – Total cost to society, balancing percentage and policy costs: per annum values (£ '000)**

		Cost to business	Cost to HSE	Total cost to society	Balancing percentage*	Policy costs
Opt. 1	Min	-1,105	52.5	-1,052	-0.68%	0
	Max	-300		-247	-0.16%	0
Opt. 2	Min	-718		-666	-0.53%	0
	Max	22		74	0.06%	0
Opt. 3	Min	-675		-622	-0.47%	15
	Max	130		183	0.14%	47
Opt. 4	Min	-729		-677	-0.44%	15
	Max	438		490	0.32%	47
Opt. 5	Min	5,217		5,160	3.36%	5,759
	Max	9,317		9,297	6.05%	8,747
Opt. 6	Min	5,229		5,173	3.37%	5,882
	Max	9,835		9,815	6.39%	9,085
Opt. 7	Min	5,151		5,095	3.32%	5,882
	Max	9,477		9,457	6.15%	9,085

**\* A negative balancing percentage indicates an increase in injuries/fatalities**

## **SMALL FIRMS IMPACT TEST**

172. HSE has liaised closely with the Heritage Rail Association in developing its proposals, and has considered its comments and also some responses from other minor railways such as cliff railways. Many of these railways will be small firms. In relation to the proposals on safety management and certification, the cost impact will be small, because nearly all of these railways will be exempt from safety certification requirements because of a low-speed threshold (40 kph) in the regulations. In relation to safety verification, these railways will incur some additional cost, because they are exempt from HSE fees for assessing applications for approvals under ROTS (due to their low speed), and the cost of employing competent persons to undertake safety verification will therefore be a new cost for these railways. These costs will be incurred only if a railway wishes to introduce new infrastructure or vehicles, or alterations, which introduce significant new risks.

## **COMPETITION ASSESSMENT**

173. The proposed regulations may impose costs on the railway sector but no adverse competition effects are expected: competition in the sector is currently highly regulated, one of the aims of the proposed regulation is to reduce the regulatory burden on the sector, and the regulations are not expected to affect businesses disproportionately.

174. The markets in which TOCs and the IC operate are highly regulated with a number of government bodies setting fares, access charges and granting franchises. The proposed regulations are not expected to reduce the level of competition in these markets further.

175. The markets in which FOCs and IMCs operate are less highly regulated so there is greater scope for adverse competition effects from the proposed regulations. The FOC sector is dominated by a small number of businesses but FOCs operate in the market for transportation that is significantly larger. In this larger market, the presence of other operators indicates there is competition but the proposed regulations will affect FOCs disproportionately compared to other non-rail transportation businesses. Hence, there may be a potential competition impact on the transportation sector but this will be mitigated since the proposed regulations could lead to lower safety case/ certificate and ROTS costs.

176. No adverse competition effects are expected in the track maintenance contractor market because the proposed regulations are not expected to have a disproportional impact on businesses operating in these markets. The proposed regulations will reduce costs for some operators by taking them outside the scope

of the proposed regulations, and costs are expected to be proportional to the size (and complexity) of business operations.

177. The changes to the safety critical work regulations (options 5 to 7) may have a differential impact on firms. Some firms will see their number of safety critical workers increase by a large number while for other firms the proposed changes will have no impact at all<sup>57</sup>. To the extent that these firms are competing in the same market, it could be argued that the regulations will have a differential impact. However, the changes that are likely to have an asymmetric impact concern the extension of scope and the duty of controlling staff undertaking safety critical work. If the differential impact is due to the extension of scope, it could indicate that firms affected and firms not affected may not be in direct competition with one another as their staff carry out different tasks. If the differential impact stems from the duty of controlling staff undertaking safety critical work, it could be argued that the new regulations remove an unfair competitive advantage that firms employing large numbers e.g., agency staff have over firms that are making no use of them.

## **BALANCE OF COSTS AND BENEFITS**

178. Since the benefits expected to arise from the different options are not quantifiable (see benefits section), it has not been possible to calculate the balance between costs and benefits. However, the balancing percentage for each option has been worked out (see Tables 9a and Table 9b). This shows the percentage reduction in the number of accidents required for benefits to balance costs.

## **UNCERTAINTIES**

179. There are a number of uncertainties associated with the above cost/benefit analysis. The main ones relate to the following factors: (1) compliance levels; (2) small sample size from which costs arising from the changes to the safety critical work regulations and familiarisation were estimated; (3) the relative cost of safety certificates and safety cases; (4) total number of additional workers covered following the changes to the safety critical work regulations; (5) number of businesses that will stop using ID cards and (6) the cost of Professional Indemnity Insurance for an independent competent Person. Although the railway safety critical work regulations will result in benefits to society, it is difficult to quantify benefits resulting from 7) the reduction in costs arising from fewer non-fatal injuries to passengers, 8) less damage to the infrastructure, 9) less damage to rolling stock and 10) fewer disruptions arising from safety failures.

## **COMPLIANCE**

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<sup>57</sup> See 'compliance cost for a typical business' section.

**180.** Throughout the analysis 100% compliance has been assumed. This assumption is likely to hold for changes to the safety case regulations as most firms will need to gain a safety certificate to operate and only a small number of firms will be exempted. However, compliance with the changes to ROTS and to the safety critical work regulations will not necessarily be full. Specifically, it has been estimated that the level of compliance with current ROTS is 80%. If the same level of compliance applies to the different options and is extended to the changes to the safety critical work regulations, costs to society will be lower. The precise impact on each option is shown in the following table.



**Table 10 - Total cost to society with 100% compliance for RSCR, 80% for ROTS and 80% for RSCWR: present value over appraisal period (£ million)**

		COST TO BUSINESS				TOTAL SOCIETY	Balancing percentage
		RSCR	ROTS	RSCWR	Familiar. <sup>58</sup>		
Opt. 1	Min	-6.8	-2.7	0	0.52	-8.4	-0.64%
	Max	-0.5	-2.2	0	0.59	-1.6	-0.12%
Opt. 2	Min	-6.8	0	0	0.57	-5.7	-0.53%
	Max	-0.5	0	0	0.66	0.6	0.06%
Opt. 3	Min	-6.5	0	0	0.69	-5.4	-0.47%
	Max	0.3	0	0	0.79	1.6	0.14%
Opt. 4	Min	-6.5	-0.7	0	0.93	-5.8	-0.44%
	Max	0.3	1.8	0	1.06	3.7	0.28%
Opt. 5	Min	-6.5	-0.7	39.6	1.59	34.4	2.60%
	Max	0.3	1.8	59.9	1.82	64.3	4.86%
Opt. 6	Min	-6.8	-0.7	39.6	1.99	34.5	2.61%
	Max	4.3	1.8	59.9	2.27	68.7	5.19%
Opt. 7	Min	-6.8	-1.2	39.6	1.99	34.0	2.57%
	Max	4.3	-0.7	59.9	2.27	66.2	5.01%

181. Costs to business and society are lower for each option and so is the balancing percentage when compared with the full compliance case.

<sup>58</sup> Compliance with familiarisation has been set equal to 90% for option 1, 100% for options 2 and 3, 90% for option 4, 87% for options 5, 6 and 7. The rates of compliance with familiarisation have been derived from the expected rates of compliance with RSCR, ROTS and RSCWR.

## DATA RECEIVED

182. As noted in the information sources and background assumptions section, at the time of writing HSE has received full responses to its request for information from 7 companies. Partial responses were obtained from an additional 21 businesses. The low number of responses has a negative impact on the robustness of the estimates.

## COST RATIO BETWEEN SAFETY CASES AND SAFETY CERTIFICATES

183. The ratio between the cost of establishing a safety case and the cost of establishing a safety certificate and SMS is uncertain. It has been estimated that safety certificates will cost 70% of the cost of a safety case because less detailed information will be required for a safety certificate. If however this estimate is incorrect, and safety certificates have the same cost as safety cases then the costs due to the amendment to the RSCR shown in the first column of Tables 8 to 10 should be replaced by the figures in Table 11.

**Table 11: RSCR Cost to Business if cost of a Safety Certificate equals cost of a Safety Case**

		Present value of costs (£ million)	Annual costs (£ '000)
Opt. 1, 2	Min	-7.1	-820
	Max	0.0	-6
Opt. 3, 4, 5	Min	-6.7	-780
	Max	0.9	106
Opt. 6, 7	Min	-7.1	-828
	Max	4.8	560

184. Increasing the cost of a safety certificate to 100% increases the cost to business of each option by between £0.3 and £0.6 million over the appraisal period.

## NUMBER OF SAFETY CRITICAL WORKERS

185. There is uncertainty about the additional number of safety critical workers that will be covered once the new regulations are implemented. Responses from a sample of companies suggest an increase by 6,000 - 7,500 people. However, one

industry source argued that the impact will be much larger, namely by a factor of 10 . If this was true, the cost of the new safety critical work regulations would lie between £348 and £451 million (£40.4 to £52.4 million p. a.).

## **REMOVAL OF ID CARDS**

186. There is uncertainty about the number of companies that will continue to use ID

187. ID cards, despite the fact that they will no longer be a legal requirement. The assumption was made that 50% of all current safety critical workers will continue to carry ID cards. The corresponding saving was estimated at between £344,000 and £3.5 million (£40,000 and £410,000 p.a.). This would double if all industry were to stop using ID cards and be equal to zero if, instead, all businesses decided to retain their ID card system.

## **PROFESSIONAL INDEMNITY INSURANCE**

188. Professional Indemnity Insurance covers people who sell their knowledge and skills to others against any mistakes or negligence. In the case of independent competent persons the regulations will require of them to exercise knowledge and skills to carry out verification. Insurance costs depend on a large number of factors, in particular turnover of business, amount of liability to be insured against, whether that liability includes public and employers liability and whether the insurance covers trackside work. All these factors and the wide range of projects competent persons could be called upon to verify mean that estimating costs is difficult. Using information from insurance industry experts the scale of professional indemnity insurance might be broadly as follows. A competent person with a turnover of £100,000, covered for professional indemnity, public and employer liability of £5 million each without trackside work covered could expect to pay between £10,000 and £15,000 per annum, equating to a charge to the customer of £10 to £15 per hour. These costs are not included in the tables in this RIA, but they would not make a large difference to the totals.

## **ENFORCEMENT AND SANCTIONS**

189. As with the present permissioning requirement involving safety cases, railway operation will be prohibited unless an application has been made to, and accepted by HSE. The existing level of compliance with this basic provision is high. Not only is the requirement well established and known by all parties within the rail industry, it is also formally linked into the checks applied by other regulators such as the Office of the Rail Regulator (ORR) in issuing licences and Strategic Rail Authority (SRA) in issuing franchises. Liaison between SRA, ORR and HSE (or their successor bodies) will continue to be important.

190. HSE inspectors will continue to be able to call upon a range of sanctions including the use of improvement and prohibition notice (with associated appeal processes), and if appropriate prosecution. In addition, HSE inspectors will also have the power to revoke a certificate or authorisation. Revocation is expected to

be a last resort reserved for the most serious cases where there is clear evidence that an organisation is unable to maintain an effective safety management system and so should no longer be allowed to operate a railway. Where revocation is under consideration there would be a right of appeal.

## **CONSULTATION (September – November 2004)**

191. The proposals for the architecture of the regulations arose from analysis of a long iterative process with rail industry stakeholders, which included their involvement in the evaluation studies on the safety case and the safety critical work regulations and which culminated in the HSC's Discussion Document (DD) "Safety on the Railway – Shaping the Future." Following the production of the DD, HSE worked towards developing the consultative document and a part of this process involved holding meetings with the Confederation of Passenger Transport, the Heritage Rail Association, the Project Steering Group with representatives from the SRA, ORR, DfT, RSSB, Passengers and Trade Unions as well as with the Safety Critical Stakeholder Working group which has representatives across the industry. The Consultative Document was launched on 6 September and throughout the consultation period HSE held further open meetings and bilaterals with interested parties. The Consultation period closed on 27 November.

192. HSE analysed the responses and presented a paper that highlighted emerging concerns of the industry on the proposed regulations to HSC on 7 December (HSC/04/132). Since the production of this paper, HSE has conducted a detailed analysis of responses for which the findings have been taken into account in the development of the final regulatory package including this regulatory impact assessment.

## **FURTHER CONSULTATION (September – November 2005)**

193. Following completion of this RIA in February 2005, a further consultation was carried out on the safety verification aspects of the draft regulations. This was in response to the Department of Transport's proposals to implement European Directives on interoperability, which included provisions for verification on the mainline railway network and therefore interface with these regulations.

194. A new approach to safety verification for these regulations was proposed, as it became clear that the interoperability procedures would be applied to a more limited scope than previously envisaged. It was therefore proposed that safety verification would be extended to cover the whole railway network, including the mainline, except where interoperability procedures applied. Further to this, the safety verification requirements would be built in to the Safety Management System, with less prescriptive requirements on process, which would reduce bureaucracy.

195. The impact of this revision has been assessed to range from cost neutral to potential cost savings of approximately £9 million, depending on the extent of the application of safety verification instead of interoperability. A summary of the impact of this revised approach, presented as a range of values, is included in Annex 1 of this RIA, but has not been incorporated into the headline figures.

## **IMPLEMENTATION OF OTHER PARTS OF THE RAILWAY SAFETY DIRECTIVE (ACCESS)**

196. The impact of providing the right of access to training facilities (Article 13 of the Railway Safety Directive) was considered as part of the initial partial Regulatory Impact Assessment (RIA) for the Railways Infrastructure (Access and Management) Regulations 2005 ("Access and Management Regulations" - SI. 2005/3049). It was originally intended that these requirements would be implemented through those Regulations. However, consultees raised concerns about the implementing provision and Department for Transport lawyers advised that the Article could not be implemented until the rest of the Safety Directive was transposed. This was because the regulation referred to terms and concepts, such as safety critical tasks, that would not legally exist until the Regulations to transpose the Safety Directive became law.

197. The relevant provisions were therefore removed from the Access and Management Regulations and their impact is not included in the final RIA for those regulations. Given that the Department is now providing access to training facilities through the Railways (Access to Training Services) Regulations, the Department has produced a stand-alone RIA, at Annex 2, drawing on material from the initial partial RIA for the Access and Management Regulations and the consultation responses.

198. The annexed stand-alone RIA mentioned above does not form part of the proposals discussed and assessed in this document. It is annexed to this document as part of a wider package to implement the Railway Safety Directive and will be incorporated into the Explanatory Memorandum for that Directive.

## **ARRANGEMENTS FOR MONITORING AND EVALUATION**

199. The current specific regulations on safety cases<sup>59</sup> and safety critical work<sup>60</sup> have been subject to evaluation by use of external contractors. The Railways Safety Case Regulations were subject to a full impact evaluation. This information will provide a baseline for future evaluation of the new regulations. A quinquennial review of the proposed regulations is expected in 2010. However, any monitoring or evaluation of the proposed regulations could be subject to change as a result of the transfer of rail safety responsibility from HSE to the Office of Rail Regulation in 2006.

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<sup>59</sup> <http://www.hse.gov.uk/research/rrhtm/rr192.htm>

<sup>60</sup> Business Strategy Group- report for the HSE-Evaluation of the Railways (Safety Critical Work) Regulations 1994. <http://www.hse.gov.uk/railways/scwreport.htm>

## SUMMARY AND RECOMMENDATION

200. The following table summarises the impact of each option. Option 7 is recommended because it reflects the changes introduced in options 1-6 and is expected to yield the greatest health and safety benefit.

Option	Total cost per annum (£ '000)		Total policy costs per annum (£ 000)		Percentage change in accidents necessary for benefits to balance costs	
	MIN	MAX	MIN	MAX	MIN	MAX
1	-1,052	-247	0	0	-0.68%	-0.16%
2	-666	74	0	0	-0.53%	0.06%
3	-622	183	15	47	-0.47%	0.14%
4	-677	490	15	47	-0.44%	0.32%
5	5,160	9,297	5,759	8,747	3.36%	6.05%
6	5,173	9,815	5,882	9,085	3.37%	6.39%
7	5,095	9,457	5,882	9,085	3.32%	6.15%

## FINAL SUMMARY

- Option 7 is recommended. Although option 7 requires more cost savings from less deaths and injuries to balance out other implementation costs, it is the option that is most likely to deliver the desired improvements in safety (and therefore deliver those savings).
- This RIA reflects HSC's proposed package, which includes the possible introduction of an ACoP. The impact on the RIA of possibly introducing guidance instead of an ACoP is regarded as being minimal.



## **MINISTERIAL DECLARATION**

201. ['I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs']

**Derek Twigg - Dated: 12<sup>th</sup> March 2006 (but agreed on 9<sup>th</sup> March 2006)**

**Parliamentary Under Secretary of State**

**Department for Transport**

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Date: 31 January 2006

## ANNEX B1

(ANNEX 1 to ROGS RIA)

### COST BENEFIT ANALYSIS OF PROPOSED CHANGES TO THE SCOPE OF SAFETY VERIFICATION FOLLOWING FURTHER CONSULTATION IN 2005

1. Following the development of the final Regulatory Impact Assessment (RIA) for Railways and Other Guided Transport Systems (Safety) Regulations (ROGS) and Department for Transport proposals in September 2005 to implement interoperability, the extent to which interoperability will apply to the mainline railway cannot yet be accurately forecast. HSE has proposed that those parts of the mainline railway that will not fall within the interoperability framework should be subject to requirements for safety verification under ROGS. This note takes the final RIA for ROGS as a baseline and estimates what effect the proposed change will have on the cost to industry of the complete package.
2. The exact extent to which safety verification will apply instead of interoperability has not been established; so five scenarios are presented below to illustrate potential cost benefit. Each scenario considers safety verification as covering a different proportion of the main line railway.<sup>61</sup> It is assumed that interoperability will impose equivalent costs on industry to the existing regime and that safety verification is cheaper for industry and the competent authority than the existing regime.<sup>62</sup> In particular, safety verification (as part of the Safety Management System) is assumed to present cost savings to industry of up to 10% over safety verification (as originally envisaged in the RIA).
3. The costs associated with extending safety verification to the main line railway are given in table 1. Negative costs indicate cost savings.

Percentage of interoperable railway covered by Safety Verification	Minimum cost over existing proposal	Maximum cost over existing proposal
0%	-£60,000.00	£0.00
10%	-£970,000.00	-£470,000.00
50%	-£4,580,000.00	-£2,350,000.00
90%	-£8,190,000.00	-£4,240,000.00
100%	-£9,090,000.00	-£4,710,000.00

Table 1: Costs imposed by an extension of safety verification

4. The final RIA estimates that the introduction of safety verification on the non-mainline railway will generate a cost saving of between £1.5 million and £0.8 million.<sup>63</sup> The figures in table 1 above are in addition to this estimate and have not been included in the headline figures quoted in the final RIA.

<sup>61</sup> "Railway" here includes the Train Operating Companies, the Freight Operating Companies, the Infrastructure Controller and the Infrastructure Maintenance Companies.

<sup>62</sup> This note follows the methodology of the existing RIA (p. 34).

<sup>63</sup> See table 8a on p35 of the existing RIA.

## REGULATORY IMPACT ASSESSMENT

### RAILWAYS (ACCESS TO TRAINING SERVICES) REGULATIONS 2006

#### **1. Title of proposed Regulations**

The Railways (Access to Training Services) Regulations.

#### **2. Purpose and intended effect**

These Regulations implement for Great Britain (GB) relevant parts of Article 13 of the European Safety Directive (2004/49/EC) which requires Member States to liberalise access to training facilities for railway undertakings, infrastructure managers and appropriate staff.

The objective of Railways (Access to Training Services) Regulations is to provide railway undertakings applying for a safety certificate with fair and non-discriminatory access to training facilities for train drivers and staff accompanying the train, whenever such training is necessary to fulfil the requirements to obtain a safety certificate; and infrastructure managers, and their staff performing vital safety tasks, with fair and non-discriminatory access to training facilities. The definition of 'infrastructure manager' used in the Safety Directive, which is adopted in these regulations, ensures that the rights of access also apply to the staff of contractors who undertake safety critical tasks on behalf of Network Rail. The services offered must include: necessary route knowledge; operating rules and procedures; the signalling and control command system; and emergency procedures in respect of the routes operated. The effect of the provisions is also to enable railway undertakings to take into account training and qualifications received from another railway undertaking, and for employees to have the right to be provided with all documents attesting to such experience. The Regulations provide railway undertakings, infrastructure managers and relevant employees with the right of appeal to the Office of Rail Regulation (ORR) if access afforded by these regulations is denied.

#### **Background**

The Department had originally intended to implement the requirements of article 13 of Directive 2004/49/EC to provide access to training facilities through the Railways Infrastructure (Access and Management) Regulations 2005 ("Access and Management Regulations" - SI 2005/3049). However, in light of concerns raised by stakeholders (see paragraph 3.3) and a realisation that it would not be appropriate to implement the article until the rest of the Safety Directive was transposed because the regulations referred to terms

and concepts that would be defined in ROGS, the Department decided to remove the provision from the Access and Management Regulations and instead implement it at the same time as the rest of the Safety Directive in a set of stand alone regulations.

### **3. Consultation**

The Department for Transport consulted on providing access to training facilities as part of its consultation exercise on the Access and Management Regulations. The Department sent out over one hundred and seventy copies of the consultation paper. Twenty-nine responses were received (including all of the key rail industry stakeholders). An analysis of the responses was completed and consultees views taken into consideration, a copy of the consultation report is available on the Department's website at [www.dft.gov.uk](http://www.dft.gov.uk).

The consultation document specifically asked whether consultees were content with the inclusion of a reference to national safety rules and safety critical tasks in the absence of the ROGS Regulations and whether the draft regulations afforded the rights to apply for access as envisaged by the Directives.

Although some respondents did not agree with the inclusion of the definition of safety critical tasks in the Access and Management Regulations, most respondents agreed that the draft regulations did afford the rights to apply for access as envisaged by the Directive. One respondent commented that contractors of an infrastructure manager who do not have to apply for their own safety certificate, as they are authorised under the infrastructure manager's safety certificate, should also have a right of access to training facilities. The Department agrees because the definition of 'infrastructure manager' contained in the Directive, and which is relied upon in these regulations, makes it clear that functions of the infrastructure manager may be allocated to different bodies or undertakings. The Department is therefore satisfied that the rights conferred on infrastructure managers and their staff are equally conferred on contractors and their staff who are performing functions of the infrastructure manager. One respondent also queried what was covered by the term 'training facilities'. The Training Services Regulations have been amended to clarify that it is access to training services that is being provided and states the services that must be offered. However, the Regulations also make it clear that such access includes access to facilities which form a part of the training service but which may not be part of a railway system (as defined in the Directive), such as classrooms or simulators.

### **4. Options**

The options considered in this RIA are:

#### ***Option 1: Do nothing***

In the absence of regulations to transpose article 13 of Directive 2004/49/EC, GB's existing railway system would continue as now. Although there is currently no statutory right for railway undertakings, or infrastructure managers, to have access to training services provided by other railway undertakings or infrastructure managers, non-transposition of the article would have limited impact on railway undertakings already operating in GB. This is because each undertaking already has its own training systems in place for new staff, as they already have in-house knowledge and expertise on the services specified in the Regulations. Indeed, one railway undertaking already offers training to other railway undertakings, as long as it does not compromise or delay its own training programme. In terms of passenger franchises, staff normally stay with the franchise, even if the franchise owner changes following a franchise competition. However, non-transposition could disadvantage infrastructure managers who do not provide training facilities themselves, as well as railway undertakings from other Member States who want to provide freight services or become an open access passenger operator. In such cases there is a slight risk that they could take legal action to obtain access or redress for the lack of its provision.

The main risk of not implementing the article is that the European Commission would start infraction proceedings against the UK Government for incomplete transposition of the Directive. The UK is obliged to implement the Directives in full under the Treaty establishing the European Community. If the UK does not do so, the European Commission could force the UK to comply through the infraction and fines process. The 'do nothing' option is not a realistic one, denying as it would the UK's legal obligations, and damaging the UK's reputation. It is not considered further.

***Option 2: Use the Railways and Other Guided Transport Systems (Safety) Regulations (ROGS) to implement article 13 of Directive 2004/49/EC by including a provision in the Regulations or using them to amend the Access and Management Regulations.***

As set out above article 13 needs to be implemented to avoid infraction proceedings and to ensure that railway undertakings have fair and non-discriminatory access to training services. ROGS could be used to achieve this aim either through inserting a specific provision or using them to amend the Access and Management Regulations. However, there are a number of disadvantages to this approach.

ROGS will be made by the Secretary of State in exercise of the powers conferred on him, by section 15 of the Health and Safety at Work etc. Act 1974 ("HSWA"), to give effect without modifications to proposals submitted to him by the Health and Safety Commission (HSC) under section 11(2)(d) of the HSWA. As ROGS have been consulted upon by HSC under only HSWA and have already been submitted to the Secretary of State, any significant changes such as the inclusion of a new provision would need to be referred back to the HSC for their approval, which can only be given following the completion of consultations required by the section 50(3) of the HSWA. Furthermore, for legal reasons, section 15 can only be used to implement provisions that fall

under the general purposes of the HSWA. Providing access to training facilities appears to fall outside the general purposes of the HSWA the requirement and would need to be implemented using section 2(2) of the European Communities Act 1972.

Given the late stage in the implementation process trying to include an open access provision in ROGS would undoubtedly lead to a delay in their implementation and would be resource intensive for the Department and HSE. As the Safety Directive has to be implemented by 30 April 2006 any delay beyond this date could lead to the European Commission initiating infraction proceedings against the UK Government for non-transposition by the due date, and subsequent risk of financial penalties and damage to the UK's reputation.

The use of ROGS to implement the requirement could also lead to confusion for stakeholders who would not necessarily link a set of Regulations implementing the Safety Directive with the provision of open access to training facilities.

***Option 3: Implement article 13 of Directive 2004/49/EC through a separate set of stand-alone Regulations.***

The Government's preferred option is the implementation of access to training facilities through a set of stand-alone regulations. This will provide clarity to stakeholders, will be less resource intensive, and does not risk delay to ROGS and possible infraction proceedings with associated reputational damage.

## ***5. Sectors and Groups affected***

### *Sectors and Groups affected*

Those groups most likely to be affected by the Regulations are: the employees of railway undertakings who are train drivers or who accompany trains, and infrastructure managers and their staff who perform safety critical tasks. The groups affected are the same for each option. The Regulations will not have any race equality impacts.

### *Benefits*

Option 1: There are no identifiable benefits from this option.

Option 2: Railway undertakings applying for a safety certificate will have fair and non-discriminatory access to training facilities for train drivers and staff accompanying the trains wherever such training is necessary for the fulfilment of requirements to obtain the safety certificate. Infrastructure managers and their staff, including contractors, performing safety critical tasks will have fair and non-discriminatory access to training facilities.

Option 3: Railway undertakings applying for a safety certificate will have fair and non-discriminatory access to training facilities for train drivers and staff accompanying the trains wherever such training is necessary for the fulfilment of requirements to obtain the safety certificate. Infrastructure managers and

their staff, including contractors, performing safety critical tasks will have fair and non-discriminatory access to training facilities.

No economic or environmental benefits have been identified for any of the options.

#### *Costs*

Option 1: Ultimately the European Court of Justice (ECJ) could fine the Government up to £367,000 per day following the passing of the European Court's second judgement until the UK notifies that transposition has been completed. Non-transposition could potentially result in new drivers, staff accompanying trains, and infrastructure managers and staff performing safety critical tasks not being fully trained. No environmental costs have been identified.

Option 2: Costs to firms in GB should be negligible. There may be costs to those required to provide access to their facilities to other undertakings, although the access related charges are designed to allow them to include a profit margin. A delay to the implementation of the Directive would create a reputational risk to the UK Government's generally good transposition record and could ultimately lead to fines detailed in Option 1. No environmental or social costs have been identified.

Option 3: Costs to firms in GB should be negligible. There may be costs to those required to provide access to their facilities to other undertakings, although the access related charges are designed to allow them to include a profit margin. No environmental or social costs have been identified.

### ***6. Small firms impact test***

We have considered the proposals in the light of possible impact on small firms (defined as those with fewer than 250 full time equivalent employees). Few licensed train or freight operating companies fall in this category other than subsidiaries of much larger companies (for example the rail freight subsidiaries of British Nuclear Fuel and of First Group). Currently no infrastructure managers fall into this category.

### ***7. Competition assessment***

The Training Services Regulations will primarily affect railway undertakings, including those from other Member States. In GB the passenger train operating sector is characterised by competition across an international field (of owning groups), although there are currently only ten companies operating passenger franchises. The freight train operating sector is dominated by a few large firms, with a number of small, but growing peripheral firms.

The Directive requirement applies to all EU Member States and therefore should not affect the relative position of companies in comparable businesses within the EU, and should not put the UK rail industry at a competitive disadvantage.



## ***8. Enforcement, sanctions and monitoring***

These Regulations will be monitored and enforced by the Office of Rail Regulation as the regulatory body. The ORR will be able to monitor the number of appeals made under these Regulations. A determination by the ORR will be binding on all parties affected by that decision, subject to a right to apply to the court for a judicial review of any such decision.

## ***9. Implementation and delivery plan***

We will inform all those stakeholders who responded to the consultation exercise when the Regulations have been laid, and from where they can obtain a copy of the Regulations. During the consultation exercise on the Access and Management Regulations we met with all of the key industry stakeholders to explain how they would be affected.

The ORR, as the regulatory body, will play a key role in observing and reporting on the implementation of the Directive. In terms of ensuring successful delivery, the Regulations contain effective enforcement mechanisms to ensure compliance. For example, if a railway undertaking is denied fair and non-discriminatory access to training services needed for the fulfilment of requirements to obtain a safety certificate it will be able to appeal against that denial to the ORR. This means that the providers of training services must implement the requirements of the Regulations correctly or face the possibility of referral to the ORR.

## **10. Post implementation review**

A planned review of the Regulations will take place within the three-year time limit specified by Cabinet Office guidelines. Given the close link with the Access and Management Regulations it would be sensible for these Regulations to be reviewed at the same time. However, a review may take place earlier if we receive substantiated evidence from industry stakeholders that the Training Services Regulations are not meeting their intended purpose or if they have created any unforeseen unintended consequences. The ORR, as the regulatory body, will have an important role in identifying whether a review is needed.

A sunset clause is not appropriate in this instance as the Regulations implement an EU Directive and the obligations that it creates are intended to be ongoing.

## **11. Summary and recommendation**

Based on the analysis of benefits and costs and option delivery risks above, we recommend that Option 3 is adopted and the Regulations are laid before Parliament.

<b>Option</b>	<b>Total cost per annum Economic, environmental, social</b>	<b>Total benefit per annum Economic, environmental, social</b>
1	Not possible to accurately calculate costs per annum - but potential fine of £367,187 per day following the passing of the European Court's second judgement until the UK notifies the Commission that transposition has been completed.	Minimal - not possible to accurately quantify.
2	Minimal - not possible to accurately quantify.	Minimal - not possible to accurately quantify.
3	Minimal - not possible to accurately quantify.	Minimal - not possible to accurately quantify.