HERITAGE RAILWAY ASSOCIATION

GUIDANCE NOTE

SAFETY MANAGEMENT SYSTEMS

Purpose

This document describes good practice in relation to its subject to be followed by Heritage Railways, Tramways and similar bodies to whom this document applies.

Endorsement

This document has been developed with, and is fully endorsed by, Her Majesty's Railway Inspectorate (HMRI), a directorate of the Office of Rail Regulation (ORR).

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Supply

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1. Introduction

A. This Guidance has been provided to assist the duty holder of heritage railways, tramways and similar bodies in meeting the requirements laid down in "The Railways and Other Guided Transport Systems (Safety) Regulations 2006" S.I.2006/599 (ROGS); in particular Part 2 of those Regulations entitled: Safety Management, Certification and Authorisation.

B. The definition of which railways and tramways are in or out of scope is clearly stated in the Regulations and its associated guidance. In summary, all heritage railways, tramways, steam centres and museums that operate trains or trams, over 350mm in gauge (and below this if they cross a public highway not necessarily on the level), will be in scope of the Regulations. Regulation 4 provides that all such railways and tramways must establish and maintain a Safety Management System (SMS).

C. Regulation 6 and Schedule 1 of the Regulations set out what the SMS must be formed of with the important caveat that the requirements of Schedule 1 are 'adapted to the character, extent and other characteristics of the operation in question'. An appropriate extract is included as Appendix A.

D. Duty holders will be aware that they have a legal obligation to passengers, contractors, other visitors and staff under the Health and Safety at Work etc Act, 1974. It is therefore important that they relate and interpret this part of the Regulations to the safe operation of their railway.

E. The term 'man' or 'men' in this Guidance note should be read as applying equally to men and women and 'he', 'him' and 'his' should be similarly interpreted.

F. The term 'staff' in this Guidance note should be taken to include unpaid volunteer workers as well as paid staff.

G. The term 'railway' should be taken to include heritage tramways and similar bodies where appropriate.

2. The Core of the Regulations

A. The core of the Regulations is that all heritage railways and tramways must have an SMS. This must be fully documented but does not have to be sent to the safety authority (Office of Rail Regulation) for approval, providing that the maximum speed on any part of the transport system does not exceed 40 kph (25mph).

B. However, inspectors from HMRI have the right to inspect a railway's or tramway's SMS during field visits and may base their inspection on what is said in the SMS.

C. The Heritage Railway Association has provided this introductory guidance to the Regulations to assist members in preparing or revising their SMS.

D. This form of regulation has the basis that those who create the risk should effectively manage it. The Regulations make it clear that the requirements are proportionate to the risk involved. It is for the management of the railway or tramway to examine the requirements of the SMS and put in place systems for the effective control of the risks involved. The SMS should demonstrate how each part of the system is downwardly managed and implemented to all staff and volunteers and how they can upwardly play their part in ensuring that it is realistic and provides a safe system as far is reasonably practicable.

3. Recommendations

A. This guidance note is issued as recommendations to duty holders.

B. Many railways are already operating systems, which, in some cases, are to a higher standard than those set out in this guidance note. This highlights the fact that it is the responsibility of the duty holder, having undertaken the necessary risk assessments, to implement controls that are applicable and necessary relative to the operating conditions on their railway.

C. Where railways decide to take actions that do not conform with these recommendations, following appropriate risk assessments or for other reasons, it is recommended that those decisions are reviewed by the senior management body of the organisation and a formal minute is recorded of both the decision reached and the reasons for reaching it.

The essential feature of a written SMS is that:

> The SMS should say **what you do** about railway safety.

> and everyone must **do what it says**

4.   What is a Safety Management System

A. 'Safety Management' is defined as the systematic management of the risks associated with railway operations and related engineering and maintenance activities to achieve a high level of safety performance.

B. An SMS is an explicit element of the corporate management responsibility which sets out a transport operator's safety policy and defines how it intends to manage safety as an integral part of its overall business. An SMS is not a single document, but rather a suite of documents, policies and procedures that are linked together in a consistent manner and which taken together should deliver a safely maintained and operated transport system.

C. An SMS can be compared with a financial management system as a method of systematically managing a vital business function. It is instructive to look briefly at this aspect.

D. The features of a financial management system are well recognised. Financial targets are set, budgets are prepared, levels of authority are established and so on. The formalities associated with a financial management system include 'checks and balances'. The whole system includes a monitoring element so that corrections can be made if performance falls short of set targets.

E. The outputs from a financial management system are usually felt across the company. Risks are still taken but the financial procedures should ensure that there are no 'business surprises'. If there are, it can be disastrous for a small company.

F. An accident is also an 'unexpected loss' and not one that any company in the industry wishes to suffer. It should be apparent that the management of safety must attract the same focus as that of finance. The adoption of an effective SMS will provide this.
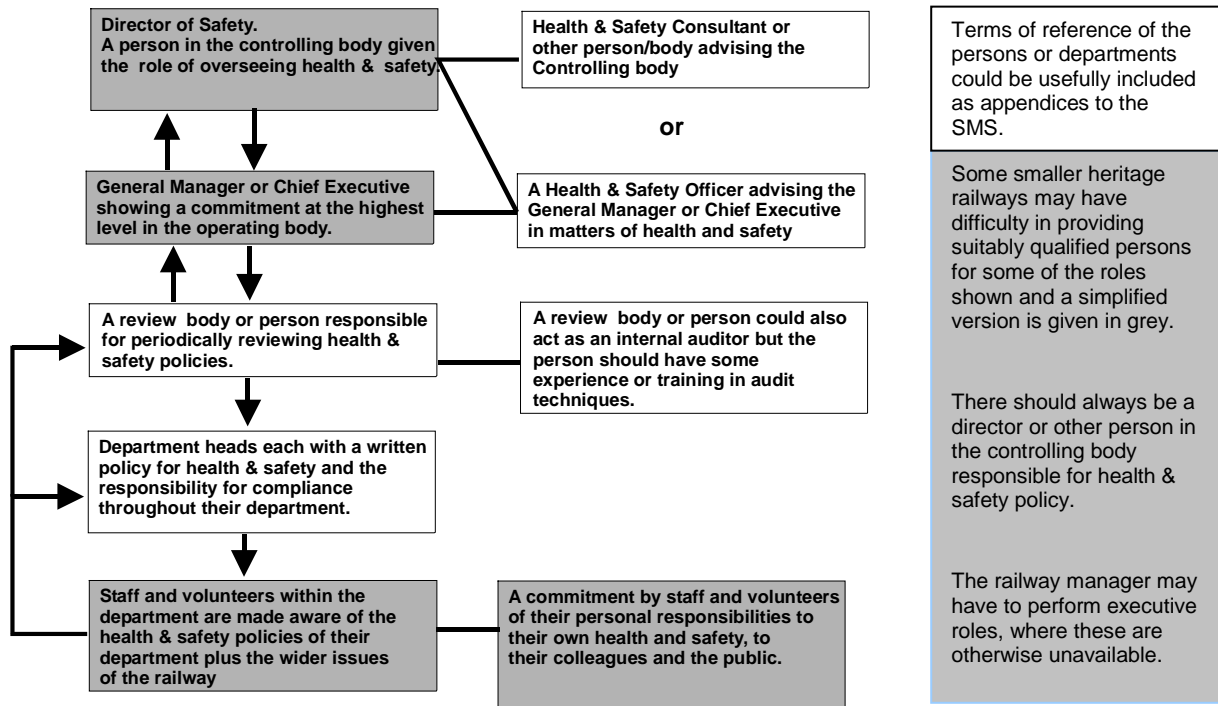
5.   Producing a Safety Management System

A. The SMS should provide basic information about the railway or tramway. Whilst this is not a specific requirement of the Regulations it will help in providing information to other government bodies, insurance companies* etc, should the need arise. We suggest the information should read something like:

B. The XYZ Railway Company Ltd is a standard/narrow gauge railway xx miles long and authorised under a Light Railway Order/Transport & Works Order/or other authority (No. XX dated XXXXXXXXX.) at a speed not exceeding 25 mph and not carrying an axle load of above XX.X tons.

Note: The SMS document copied to your insurance company may well help in reducing premiums or at least minimise increases in that it demonstrates good governance.

C. Although not a requirement, it is helpful to summarise the document with an executive summary covering the salient points of the document.

6. Safety Management Systems (SMS) – The Requirements

A. The SMS should describe the distribution of responsibilities within the operation for the SMS - Schedule 1 para 1(a), Regulation 6(1)(b). An effective way is to provide this in the form of a diagram showing the responsibilities from Board level to individual operators. An example flow chart is given below:

Even in those cases of very small heritage railways, where perhaps the manager or owner acts as the chief executive, drives the trains, carries out maintenance and sweeps the platforms, the principles are the same. Of particular importance is to ensure that those volunteers who infrequently attend the railway, but perhaps perform safety critical tasks on those occasions, are properly informed of their duties under the SMS.

Show how control of the SMS by the management is secured. Schedule 1 para 1(b).

B. This could be in the form of the rulebook, regulations, notices or other such documents as may be relevant to safety. The SMS should show how safety policy documents and special instructions are disseminated and how personnel are periodically assessed on their knowledge of such documents. These documents should be briefly summarised and included or referenced in the SMS as appendices, which become the company's SMS document.

Show how employees and volunteers of the operator and their representatives on all levels are involved with the SMS. Schedule 1 para 1(c).

C. In some of the larger heritage railways and tramways union officials may represent employees. On other railways or tramways this is also relevant to non-union representation and for volunteers where management may consider it desirable to provide representation on or through management committees. This is to ensure that all employees/volunteers have a voice to express comment or concerns and the SMS should state how this representation is provided.

Show how continuous improvement of the SMS is ensured. Schedule 1 para 1(d).

D. This would apply when changes (or through a review) are made to operations, the introduction of new vehicles or infrastructure or through an internal audit. Reviews either every five years or as and when material changes are made, should ensure that the SMS is updated regularly.

7. The Basic Elements of the SMS

A. A statement of the safety policy which has been approved by the chief executive and communicated to all persons carrying out work or voluntary work directly in relation to the operation; Schedule 1 para 2(a). {{The Association provides a separate guidance paper together with an example of a statement of safety policy in its set of Guidance Notes.}}

B. Qualitative and quantitative targets for the maintenance and enhancement of safety and plans and procedures for reaching those targets; Schedule 1 para 2 (b). "Qualitative assessments are generally based on subjective judgement, either stating that a risk is suitably controlled or not (yes/no) or using a matrix with values based on judgement. Quantitative assessment is based on historically established data and is more appropriate to major risks where accurate statistical information is available." {{ The Association provides a separate guidance paper on risk assessment.}}

C. Procedures to meet technical and operational standards or other requirements as set out in–

1. National safety rules; Schedule 1 para 2 (c)(ii), (if applicable). These refer to any legislation and other requirements applicable to the whole of Great Britain that contain requirements (including common operating rules) relating to safety which are imposed on more than one undertaking. Note: common operating rules do not currently apply to heritage railways or tramways.

2. Other specific requirements of HMRI to specific operators.

D. Procedures and methods for carrying out risk evaluation and implementing risk control measures when:

1. there is a change in the way in which the operation in question is carried out; Schedule 1 para 2 (d)(i); or

2. new material is used in the operation in question; Schedule 1 para2 (d)(ii), which gives rise to new risks in relation to any infrastructure or the operation being carried out;.

E. Changes to the infrastructure, bringing in new vehicles or changes to operations can change the risk assessment. All railways and tramways should have produced a suitable and sufficient risk assessment for all their operations, which should be reviewed and linked to the SMS documentation. The SMS should have a procedure that triggers a review of the risk assessment documentation as changes occur.

F. Provision of programmes for training of persons carrying out work or voluntary work directly in relation to the operation and systems to ensure that the competence of such persons is maintained and that they carry out tasks accordingly. Schedule 1 para 2 (e). The SMS should document the induction and training procedures and provide details of how competence is reviewed periodically or following incidents or accidents.

G. Arrangements for the provision of sufficient information relevant to safety–

1. within the operation in question; and

2. between the operator in question and any other transport operator or an applicant for a safety certificate or a safety authorisation who carries out or who intends to carry out operations on the same infrastructure. Schedule 1 para 2 (f)(i) and (ii).

This mainly applies to railways that share part of someone else's infrastructure such as a shared station. It would also apply to railways with a physical connection to the mainline system where vehicles are exchanged and over which charter trains operate.

H. Procedures and formats for the documentation of safety information; Schedule 1 para 2(g).

The main procedure is to ensure that all parts of the SMS are documented and made available to affected staff and volunteers. There is however no set format in the requirements and operators are free to use any system provided the requirements of the Regulations are met.

I. Procedures to control the layout of, and changes to, vital safety information. Schedule 1 para 2(h).

There are many different ways of ensuring that vital safety information is highlighted in the SMS, for example through a section at the beginning of the documented SMS showing 'changes since' (date), on bulletin boards and through late notices displayed in the workplace.

J. Procedures to ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and analysed and that necessary preventative measures are taken. Schedule 1 para 2 (i).

Most railways and tramways will already have these procedures in place. The Association provides separate guidance on the reporting of accidents, incidents and near misses.

K. Provision of plans for action, alerts and information in the case of an emergency which are to be agreed with any public body, including the emergency services, that may be involved in such an emergency; Schedule 1 para 2.(j)

An emergency plan should already be part of a railway's or tramway's operating system together with information on contacts and the results of any emergency exercises carried out in conjunction with the emergency services.

L. Provisions for recurrent internal auditing of the SMS. Schedule 1 para 2(k).

The Association provides separate guidance on safety audits and recommends that the internal auditor is independent of the management system and should be objective in his audits.

M. The above are the basic requirements of a SMS. To assist railways and tramways HRA has constructed a suggested list of Chapter headings see Appendix B; and a check list: see Appendix C.

## 8. The principles of effectively managing health and safety

A. These are no different from managing any other business activity, such as finance. These principles use a control loop. Policies have to be developed and clearly stated, objectives set and agreed, and methods and procedures devised and implemented for delivering the objectives. Finally feedback loops have to be integrated to detect variations between the expectation and output and to enable corrective action to be taken.

B. The Health and Safety Executive has set out a model in a guidance publication "Managing for health and safety" HS(G)(65). This focusses on the 'Plan, Do, Check, Act' cycle. An illustrative diagram from the HSE document is shown to the right:

C. For larger organisations with more established SMS's who wish to look for areas of improvement it may be appropriate to review their systems against the ORR's "RM3" criteria. These are normally used by ORR to review the SMS's of mainline railway safety certificate holders, but may offer useful insights to larger operators

Figure 1 The Plan, Do, Check, Act cycle

Plan, Do, Check, Act should not be seen as a once-and-for-all action:
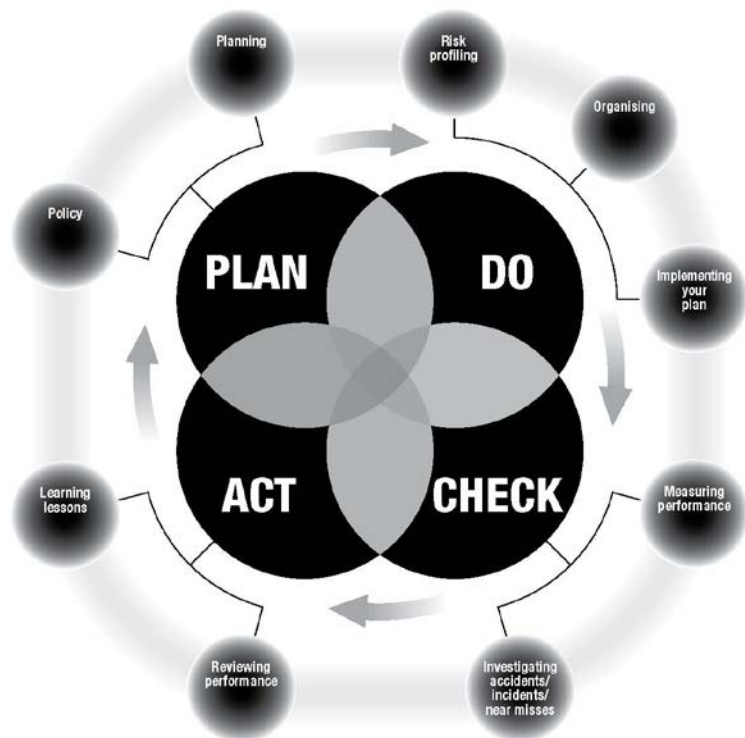
You may need to go round the cycle more than once, particularly when:

- starting out;
- developing a new process, product or service; or
- implementing any change.

9.   References

Company Safety Plans: Good Practice Guide. RSSB Ref RS/601

"Managing for health and safety" HS(G)(65): http://www.hse.gov.uk/pubns/priced/hsg65.pdf

"Plan, do, check, act" INDG275: www.hse.gov.uk/pUbns/indg275.pdf

ORR guide to ROGS, October2014: www.orr.gov.uk/__data/assets/pdf_file/0020/2567/rogs-guidance.pdf

_____ end of main document_____

Appendix A: Extracts from the Regulations

Applicable to Heritage Railways and Tramways

Safety management system for other transport systems

6.—(1) The requirements for a safety management system …………………… are that—

> (a) it is adequate to ensure that the relevant statutory provisions which make provision in relation to safety will be complied with in relation to the operation in question;

> (b) it meets the requirements and contains the elements set out in Schedule 1, adapted to the character, extent and other characteristics of the operation in question;

> (c), it ensures the control of all categories of risk associated with the operation in question which, without prejudice to the generality of the foregoing, shall include such risks relating to the—

>> (i) supply of maintenance and material;

>> (ii) use of contractors; and

>> (iii) placing in service of new or altered vehicles or infrastructure the design or construction of which incorporates significant changes compared to any vehicles or infrastructure already in use on the transport system and which changes would be capable of significantly increasing an existing risk or creating a significant safety risk;

> (d) it takes into account, where appropriate and reasonable, the risks arising as a result of activities carried on by other persons; and

> (e) all parts of it are documented.

(2) {Not applicable to Heritage railways and tramways}

(3) {Not applicable to Heritage railways and tramways}

(4) In paragraph (1)(c)(iii) where such new or altered vehicles or infrastructure are intended to be placed in service, then before that placing in service the transport operator shall ensure that he—

> (a) has an established written safety verification scheme which meets the requirements and contains the elements set out in Schedule 4; and

> (b) has appointed a competent person to undertake that safety verification and the competent person has undertaken that safety verification in relation to the new or altered vehicle or infrastructure.

(5) Regulation 6(5) was repealed by regulation 2(4) of The Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2011 because the definition of 'placed in service' was moved to the general definitions in Regulation 2. Placed in service shall mean first placed in service for the provision of a transport service, and in ascertaining when this takes place no regard shall be had to any trials or testing that takes place to the relevant vehicle or infrastructure.

(6) In this regulation the requirements of paragraph (4) shall apply in the absence of a transport operator to a responsible person as they would apply to a transport operator.

(7) {Embodied in the Schedule , see below}

Schedule 1, adapted for Heritage Railways and Tramways

Requirements of the safety management system

1. The safety management system shall—

(a) describe the distribution of responsibilities, within the operation, for the safety management system;

(b) show how control of the safety management system by the management on different levels is secured;

(c) show how persons carrying out work or voluntary work directly in relation to the operation and their representatives on all levels are involved with the safety management system; and

(d) show how continuous improvement of the safety management system is ensured.

Basic elements of the safety management system

2. The basic elements of a safety management system are—

(a) a statement of the safety policy which has been approved by the chief executive and communicated to all persons carrying out work or voluntary work directly in relation to the operation;

(b) qualitative and quantitative targets for the maintenance and enhancement of safety and plans and procedures for reaching those targets;

(c) procedures —

(i) to meet relevant technical specifications; and

(ii) relating to operations or maintenance, insofar as they relate to the safety of persons, and procedures for ensuring that the procedures in sub-paragraphs (i) and (ii) are followed throughout the life-cycle of any relevant equipment or operation;.

(d) procedures and methods for carrying out risk evaluation and implementing risk control measures when—

(i) there is a change in the way in which the operation in question is carried out; or

(ii) new material is used in the operation in question, which gives rise to new risks in relation to any infrastructure or the operation being carried out;

(e) provision of programmes for training of persons carrying out work or voluntary work directly in relation to the operation and systems to ensure that the competence of such persons is maintained and that they carry out tasks accordingly;

(f) arrangements for the provision of sufficient information relevant to safety—

(i) within the operation in question; and

(ii) between the operator in question and any other transport operator or an applicant for a safety certificate or a safety authorisation who carries out or who intends to carry out operations on the same infrastructure;

(g) procedures and formats for the documentation of safety information;

(h) procedures to control the layout of, and changes to, vital safety information;

(i) procedures to ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and analysed and that necessary preventative measures are taken;

(j) provision of plans for action, alerts and information in the case of an emergency which are to be agreed with any public body, including the emergency services, that may be involved in such an emergency; and

(k) provisions for recurrent internal auditing of the safety management system.

_____ end of appendix _____

Appendix B: Suggested Chapter Headings for a Heritage SMS

This list is not definitive but is provided as an indicative guide only and is aimed at small and medium sized Heritage operations. Management has the responsibility for ensuring that all appropriate functions / systems / controls are included. In view of the emphasis of the Regulations it is important to identify and clarify the documentation required at every stage as well as the retention time for such documentation.

Items marked # need not be included in the document (to ease updating) but their location should be specified.

A. Brief description of the Railway / Tramway.

    1. Where is it – grid reference – sketch.

    2. Who owns it (e.g. Company / Council).

    3. Who runs it (name of Organisation and relationship to owner).

    4. Characteristics of operation.

B. Safety Policy #

C. Organisation / Responsibility Chart

    1. Include all safety critical roles and responsibilities.

    2. # refer to list(s) of named competent persons.

D. Risk Assessments #

    1. Procedure / coverage / new risks / review procedures.

E. How is competence achieved / examined / monitored / maintained.

    1. # refer to any standards.

    2. Medical and competence examinations.

    3. Safety critical work / other work.

    4. Fatigue management.

    5. Drugs and Alcohol control.

    6. Changes of staff.

F. How is the operational railway / tramway managed.

    1. Normal / special events.

    2. Duty managers (or appropriate title).

    3. # Rule Book (& appendices) etc.

    4. Notice boards (operational / statutory / public).

    5. Formal operations notices / local instructions.

    6. Staff communications - both ways.

G. How is maintenance managed.

    1. Formation / structures / permanent way / signalling / rolling stock.

    2. Inspection / standards / maintenance / records.

    3. Contractors.

    4. # Asset Registers.

    5. # Workshop instructions.

H. How are changes to the asset base handled.

    1.Loaned / hired items / visiting locomotives.

    2.Infrastructure.

I. How are other people on the premises handled.

    1.Separate groups (loco owners?).

    2.Visitors.

    3.Contractors.

J. Connection to other rail Infrastructure.

    1.Documentation / controls / cooperation.

K. How are emergencies handled.

    1.Roles and responsibilities.

    2.Emergency Plan #, exercises.

    3.Degraded operations (including weather related).

    4.Injured / Stranded passengers.

    5.Fire at the line-side / in buildings / on trains / on trams.

L. Incident / accident reporting.

    1.How is it done and by whom.

    2.Reporting / investigating / handling resulting actions / closure.

    3.Internal and external (HMRI, RAIB).

M. Environmental Policy #

N. How are staff involved / consulted.

    1.Paid and unpaid.

    2.Working on premises and away.

O. How are complaints handled.

    1.Staff discipline / appeals.

    2.Passenger complaints.

P. What provisions are made for review / Audit of the whole SMS.

    1.Independence.

    2.Frequency.

_____ end of appendix _____

Appendix C: Check List of the Requirements

To assist in complying with Regulations 6(1)(b) we suggest the transport operator retains this check list as part of its SMS.

Sch 1 Ref.	Description	SMS Reference	Completion Date	Review Date
1 (a)	Describe the distribution of responsibilities, within the operation, for the Safety Management System.			
1 (b)	Show how control of the Safety Management System by the management is secured.			
1 (c)	Show how employees/volunteers of the operator and their representatives on all levels are involved with the safety management system.			
1 (d)	Show how continuous improvement of the safety management system is ensured.			
2 (a)	A statement of the safety policy which has been approved by the chief executive and communicated to all persons carrying out work or voluntary work directly in relation to the operation.			
2 (b)	Qualitative and quantitative targets for the maintenance and enhancement of safety and plans and procedures for reaching those targets.			
2 (c)	Procedures to meet technical and operational standards or other requirements as set out in–			
	(i) TSIs; (These do not apply to heritage railways).	XXXX	XXXX	
	(ii) National safety rules; (as applicable to heritage railways and tramways.)			
	(iii) Other relevant safety requirements.			
	(iv) Decisions of the ORR addressed to the transport operator in question and procedures to ensure compliance with the requirements listed in this paragraph throughout the life cycle of any relevant equipment or operation, which is subject to the requirement in question.			
2 (d)	Procedures and methods for carrying out risk evaluation and implementing risk control measures when–			
	(i) there is a change in the way in which the operation in question is carried out, which gives rise to new risks in relation to any infrastructure or the operation being carried out; or			
	(ii) new material is used in the operation in question, which gives rise to new risks in relation to any infrastructure or the operation being carried out.			

2 (e)	Provision of programmes for training of persons carrying out work or voluntary work directly in relation to the operation and systems to ensure that the competence of such persons is maintained and that they carry out tasks accordingly.			
2 (f)	Arrangements for the provision of sufficient information relevant to safety–			
	(i) within the operation in question; and			
	(ii) between the operator in question and any other transport operator or an applicant for a safety certificate or a safety authorisation who carries out or who intends to carry out operations on the same infrastructure.			
2 (g)	Procedures and formats for the documentation of safety information.			
2 (h)	Procedures to control the layout of, and changes to, vital safety information.			
2 (i)	Procedures to ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and analysed and that necessary preventative measures are taken.			
2 (j)	Provision of plans for action, alerts and information in the case of an emergency which are to be agreed with any public body, including the emergency services, that may be involved in such an emergency.			
2 (k)	Provisions for recurrent internal auditing of the safety management system.			
	Is there a policy on the use of internal audit?			
	Is there an adequate organisation to plan and implement internal audit? including competent staff?			
	Is the implementation of the system measured by active monitoring?			
	Who audits the auditors?			
	Is the system subject to periodic review?			

_____ end of appendices _____