Responsibility for the regulation of health and safety on the railways was transferred from the Health and Safety Commission (HSC) and Health and Safety Executive (HSE) to the Office of Rail Regulation (ORR) on 1 April 2006.

This document was originally produced by HSC/E but responsibility for the subject/work area in the document has now moved to ORR.

If you would like any further information, please contact the ORR’s Correspondence Section - contact.cct@orr.gsi.gov.uk
PREFACE

This guide explains how to apply for Approval of new works, plant or equipment, as required by the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 (ROTS). It also details the evidence needed by the HMRI Inspector responsible for assessing the submission. The guide is aimed at railway Duty Holders, project managers, engineers and suppliers to the railway industry, and HMRI Railway Inspectors. The guide includes cross-references (indicated by the superscript numbers) that relate to the references contained in Appendix 9. Hyperlinks have been incorporated into this document to enable relevant information to be accessed easily – these hyperlinks are marked in blue script.

It is not intended that this guide be prescriptive in what will happen for every submission, as no two projects are the same in their content so no absolutely defined process is possible.

If you need any further advice or information please contact HM Railway Inspectorate at:

HM Railway Inspectorate
Health and Safety Executive
Rose Court
2 Southwark Bridge
London SE1 9HS
Tel: 020 7717 6000 (main switchboard)

We are continuing to publish this document solely on HSE's website, rather than in paper form (previously L59) because:

- The issue of a further supplementary General Notice for dispensations from approval for certain types of work makes it easier to incorporate into the Guide without the cost of reprinting.
- A wide-ranging review of railway-related legislation is underway, including ROTS, and this guidance is likely to become redundant in 2007.
- Publishing on the web means the guidance can be updated easily. For example, HSE is developing a new web page on the application of ALARP in the process leading up to Approval. Once this is available a brief amendment can be made stating where this new information can be found.
- This guide contains new sections to give a more detailed explanation of the process and the documents required to complete the process in as short a time as practicable.

Scope

In this guide the term ‘railway’ should be taken to include other transport systems, such as tramways and guided transport systems, where appropriate, and the term ‘works’ to include plant and equipment where appropriate.

The term ‘Approval’ is defined in Regulation 2. No other form of advice, consent, guidance, etc will constitute Approval under these Regulations.
# TABLE OF CONTENTS

PREFACE \( \text{II} \)
- Scope \( \text{ii} \)

INTRODUCTION 1
- Safety Cases 1
- Other Legal Responsibilities 1

THE TYPES OF WORKS, PLANT AND EQUIPMENT WHICH NEED APPROVAL 2
- Major and Minor Works 2
- Level Crossings 3
- Type Approval 3
- Further Powers 3

WHO SHOULD APPLY 4

GUIDANCE ON THE PROCESS OF MAKING A SUBMISSION 4
- When Approval should be sought 4
- The submission process 5
- Authorised signatories 5
- Initial Concept submission 5
- Detailed submission 6
- Consent to Bring into Use Prior to Approval 6
- Approval 6
- Process flow charts 7
- Figure 1: Classification of works, plant and equipment. 8
- Figure 2: The simplified procedure for the Approval of works, plant and equipment. 9
- Figure 3: The full procedure for the Approval of works, plant and equipment. 10
- Figure 4: The procedures for bringing equipment into use prior to Approval. 11

ON-SITE INSPECTIONS 12
- Process of On-Site Inspection 12

SUBMISSION INFORMATION 12
- Basic proposal detail 12
- Concept stage 13
- Detailed proposal stage 14
- Specific Evidence 17
- Final Approval 17
10. Dispensations 58
11. Compliance with provisions not otherwise applicable 58
12. Information 58
13. Offences 58

SCHEDULE 1: PRESCRIBED MODES OF GUIDED TRANSPORT 60
PART I – The Modes 60
PART II – Interpretation 60

SCHEDULE 2: DOCUMENTS TO ACCOMPANY AN APPLICATION FOR APPROVAL 61
PART I – Works 61
PART II – Fixed plant and equipment 61
PART III - Moveable plant and equipment 62
PART IV - Altered works, plant and equipment 62

SCHEDULE 3: FORM OF CERTIFICATE OF CONFORMITY FOR PLANT OR EQUIPMENT 64

APPENDIX 8 – OTHER RELEVANT LEGISLATION 65
APPENDIX 9 – REFERENCES 66
INTRODUCTION

1. The Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 (ROTS) were made under the Transport and Works Act 1992 and came into force on 5 April 1994. The Regulations are included as Appendix 7.

2. Regulation 4 requires Railway Duty Holders to gain Approval from the Health and Safety Executive (HSE) before bringing any new or altered railway works, plant and equipment that affects safety into use.

3. The Regulations were based, as far as possible, on previous practice but extend to cover all new or altered works, plant and equipment. This includes locomotives and rolling stock, and certain other transport systems such as tramways, trolley vehicle systems, light railways, light rapid transit systems and guided busways.

4. The Regulations stem from the Transport and Works Act 1992 which provides powers for regulations to be made for the Approval of new works. The Regulations were amended by the Railway Safety (Miscellaneous Provisions) Regulations 1997, the Railways (Interoperability) (High-Speed) Regulations 2002 and the Cableway Installations Regulations 2004.

5. Duty Holders are strongly encouraged to consult with the Inspectorate well in advance to confirm which regulations apply to their schemes. Specific guidance on the regulations relating to interoperability can be found on the HSE website at http://www.hse.gov.uk/railways/subsystems/index.htm and on the website of the Department for Transport at www.dft.gov.uk.

6. The authority to approve is vested in the HSE and has been delegated to HM Railway Inspectorate’s (the Inspectorate) Chief Inspector of Railways. The Inspectorate is part of HSE but the Government has announced its intention to transfer the Inspectorate to the Office of Rail Regulation.

7. Duty Holders are encouraged to apply for approval well in advance of the date that they intend to bring any works, plant or equipment into use. Duty Holders may also seek additional advice from the Inspectorate at any stage in the process.

Safety Cases

8. The Railways (Safety Case) Regulations 2000 (which came into force on 31 December 2000) require all Railway Duty Holders to produce a Safety Case covering all aspects of their operation, including how they bring works, plant and equipment into use.

9. The Safety Case must state the procedures adopted to ensure that all works, plant and equipment are properly designed, constructed, installed and used safely.

10. Railway Duty Holders still have a duty to submit works for Approval even if their safety case has been accepted. However, if they have taken all necessary factors into account when preparing the Safety Case and ensured that the procedures were followed, gaining Approval should be easier.

11. The introduction of new or altered works may require the Railway Duty Holder to review their Railway Safety Case. In some instances it may be necessary to submit a material revision of the Railway Safety Case.

12. Each railway undertaking is required to set out the standards it will apply as part of its Safety Case. It is expected that all organisations will comply with the standards that they have adopted which should normally not be less than those set out in National, European and International Standards (if appropriate).

Other Legal Responsibilities

13. The safety of any railway is the legal responsibility of the Duty Holder of that railway. This responsibility covers design, construction, operation and maintenance.
14. Other legislation may also apply to aspects of any submission for Approval. The granting of Approval may be withheld until assurances have been obtained that the requirements of such legislation are met. The granting of Approval for the works is not a substitute for compliance with any other relevant legislation. A list of some of the other legislation that may apply is given in Appendix 8.

15. The granting of Approval does not indicate that the system is safe under all conditions and does not relieve the Duty Holder of this responsibility. Approval considers the works only at the time of Approval and it should be noted that the Duty Holder will still be subject to the provisions of the Health and Safety at Work Act 1974, and any other relevant Statutory provisions.


17. The scope and extent of European Interoperability will be progressively extended to the main line network by new Regulations implementing European Directive 2001/16/EC on Conventional Interoperability and 2004/50/EC, generally known as the Amendment Directive. These new Interoperability Regulations will also replace the above-mentioned High-Speed Regulations. Duty Holders on the main railway network should make sure they are fully aware of the requirements of the new implementing Regulations when these are made.

18. There may be occasions where a Duty Holder may wish to follow the Interoperability process for projects not yet covered by the scope of Interoperability. For example the development and implementation of Global Systems Mobile Communications – Railways (GSM(R)). In such circumstances, the Inspectorate may consider that the Interoperability process provides sufficient evidence in order to grant approval of the works, plant or equipment. The Duty Holder should obtain HMRI's agreement in advance. However, ROTS remains in force on non high-speed Trans European Networks (TENS) lines until it is disapplied by the forthcoming Amendment Directive.

THE TYPES OF WORKS, PLANT AND EQUIPMENT WHICH NEED APPROVAL

19. ROTS relate to any railway, tramway, trolley vehicle system, and any other guided transport system as described in Schedule 1. They apply to both new and altered works.

20. Works, plant and equipment, which are capable of materially affecting the safe operation of the relevant transport system, require Approval. All Traction, Rolling Stock and Freight Wagons, including further builds of Traction, Rolling Stock and Freight Wagons currently in use which have not been previously approved, will require Approval unless a specific dispensation is granted.

21. Maintenance works and most like-for-like replacements do not normally require Approval.

22. The Secretary of State and HSE have made dispensations under the proviso of General Notices. The General Notices included in the Appendices of this guide give a list of those works, plant and equipment which do not normally require Approval to be sought. All other works, plant and equipment require Approval unless a specific exemption is granted in accordance with the Regulations. However, the Regulations will not be applied retrospectively to existing works, plant and equipment.

Major and Minor Works

23. Normally, all major works will be inspected before Approval is given. For smaller schemes a simplified self-certifying procedure may be applied. All new railways and
larger schemes on existing railways will normally be considered as major works. A list of minor works is given in Appendix 2. Ultimately, the Inspectorate may consider that projects previously considered minor may need to be handled as major. However we will set out clear reasons on why we believe this to be the case. The definition of minor works in this document should not necessarily be taken as a definition for minor works for the purposes of the Railways (Interoperability) (High Speed) Regulations 2002.

Level Crossings

24. Where alteration works at a level crossing are covered by an individual Statutory Order made under separate legislation, Approval will not be required under these Regulations (see clause 19 of General Notice in Appendix 1). If, however, there are signalling and other track works associated with the installation or alteration of a level crossing, these additional works will need to be submitted for Approval in accordance with the procedures set out in this guide.

Type Approval

25. Type Approval is principally intended to be used for Signalling equipment, rolling stock and other plant and equipment that is to be manufactured in quantity. Normally it will not be required for individual components of such plant and equipment. Type Approved works, plant or equipment that is to be used in part of a scheme will still require assessing as part of the Approval of that scheme. The granting of Type Approval does not mean that the works, plant or equipment Approved are suitable and safe for use in all circumstances. Separate Approval may be required for specific applications on a railway.

26. Applications for Type Approval will only be considered on the basis of a documented programme of safety assessment. For complex safety-critical systems, independent third-party assessment may be required by HMRI. Where significant changes are made to any plant or equipment or serious safety concerns are raised against any plant or equipment, which has been granted Type Approval, details of the changes should be submitted to the Inspectorate for consideration.

27. Prior to applying for Type Approval, the Duty Holder is encouraged to discuss the principle with HMRI. Applications for Type Approval will be considered only where there is a likely use for the plant or equipment concerned. They should have the support of at least one potential railway user. Speculative applications will not be considered.

28. Where a Duty Holder intends bringing into use any plant or equipment which conforms to a prototype for which the manufacturer or importer has type approval, the Duty Holder should include a certificate which follows Schedule 3 of the Regulations. This certificate needs to be included with any application for approval of use.

Further Powers

29. Regulations 10 and 11 provide for the issue of individual or General Notices which may respectively dispense with provisions of the Regulations that normally apply or require compliance with provisions of the Regulations that would not otherwise apply. When submitting a scheme for Approval the Duty Holder should first read the General Notices to determine if the scheme requires Approval.

30. The attention of Duty Holders, manufacturers and their staff is drawn to Regulation 12 which places a duty on them and Regulation 13 which provides for offences. It will be an offence to bring into use any new works, plant or equipment without formal Approval, except as specifically permitted by the Regulations, or their use outside any approved relevant operational conditions, or the giving of false information, and may leave individuals or their employers open to prosecution.
WHO SHOULD APPLY

31. The Duty Holder is responsible for the safety of its undertaking and is responsible for seeking Approval for any new works, plant or equipment or alterations to existing works, plant and equipment. For the purpose of seeking Approval in accordance with the Regulations, the Duty Holder is the person carrying on, or proposing to carry on, the relevant transport system which is using, or intends to use, the works, plant or equipment concerned. Operators will be referred to as the Duty Holder for the purpose of this guide.

32. Where works, plant or equipment would effect other railway undertakings, the Inspectorate would expect evidence of discussion between the parties and the agreement of suitable arrangements to ensure that the proposal does not cause difficulties elsewhere.

33. Suitably supported applications for Type Approval may be submitted by the provider of the equipment, usually the manufacturer or importer, or by the Operator who first proposes to use the plant or equipment.

34. The Duty Holder may delegate to an individual, such as a project manager or line manager, the responsibility for seeking Approval and for dealing with day-to-day matters. However, the Duty Holder’s responsibility under ROTS is not delegated i.e. in the event of an offence, the Inspectorate will usually consider the corporate company before any individual liability. To avoid any risk of omissions or duplication it is strongly recommended that all communications to the Inspectorate be directed through this delegated person. Where alternative arrangements are proposed these should be discussed with the Inspectorate.

GUIDANCE ON THE PROCESS OF MAKING A SUBMISSION

When Approval Should be Sought

35. The Duty Holder should ensure the timely submission of details of all works, plant and equipment for which Approval is required. The time required for consideration of any proposal will depend on its complexity. If aspects of the proposal do not comply with any requirements or relevant national or international standard or code of practice, additional time will be required for the Inspectorate to consider them. Where novel technology or systems are proposed, advice should be sought from the Inspectorate as to the likely timescales for the granting of Approval.

36. For most minor works (see Appendix 2) a simplified process can be used (see Figure 2). Where a Duty Holder is unsure if the simplified process applies they are encouraged to seek advice from HMRI. Using the simplified process, details should be submitted to the Inspectorate as early as possible, and not less than six weeks before work begins, to allow time to consider the proposal.

37. Details of major works should be submitted as early as possible. Where a public inquiry under any statutory provision is required, the Inspectorate will need details of that inquiry. This is particularly relevant for tramways and level crossing proposals. Formal submissions should be made once the design has been developed. An indication of the likely period of notice required for the consideration of the detailed proposals can be given, on request, when the outline scheme is submitted. This period will not normally be less than 12 weeks.

38. Where proposals for major works, plant and equipment, or novel schemes, are being developed, it is strongly recommended that the Inspectorate is involved at an early stage to ensure any major objections are resolved before potential abortive work is carried out. Outline proposals should be submitted for consideration only where there is a real prospect of the proposals being developed and brought into use. Speculative proposals will not normally be considered.

39. Submissions for Type Approval will be treated in the same manner as other proposals. The timescale for considering such proposals will depend on their complexity and
degree of novelty. It is recommended that the Inspectorate is involved at key stages in the development of plant or equipment.

40. There are exceptions to the normal Approval process, whereby the Duty Holder may bring into use the works, plant, or equipment prior to Approval being given, whilst still being in compliance with the Regulations (see paragraph 52).

The Submission Process

41. The flowchart in Figure 1 illustrates the classification process to determine which Approval process should be used.

The Duty Holder has a number of items of documentation that may be submitted as justifiable evidence to support the application. These are detailed as follows:

- Submission Information – see paragraph 65.
- Concept Stage – see paragraph 66.
- Detailed Proposal Stage – see paragraph 67.
- Specific Evidence:
  - Rolling Stock – see Appendix 3A.
  - Infrastructure – see Appendix 3B.
  - Stations – see Appendix 3C.
  - Energy – see Appendix 3D.
  - Signalling – see Appendix 3E.
  - Tramways and Light Rapid Transit Systems – see Appendix 3F.

42. All correspondence with HMRI should be addressed to:

HM Railway Inspectorate
Health and Safety Executive
Rose Court
2 Southwark Bridge
London SE1 9HS

43. On receipt of a submission it will be checked to ensure it is complete and then passed to an Inspector to deal with. Any incomplete application may be rejected. An Inspector will review a submission in accordance with the perceived level of risk. The Duty Holder will also be informed if it is determined that the proposal does not require Approval.

44. At the start of a project, the Duty Holder is encouraged to contact HMRI to give preliminary advice on the proposal. A presentation may be useful at this stage. For complex applications it may be necessary for the Inspector to meet the Duty Holder to discuss the application further.

Authorised Signatories

45. The Certificates of Compliance and Completion have to be signed by an Authorised Signatory who is a person with ultimate responsibility for the safe operation of the railway. Authorised signatories should have been notified to HMRI prior to submission of any documentation. HMRI will maintain a list of current Authorised Signatories.

Initial Concept Submission

46. The Duty Holder may make an initial submission to HMRI that includes the conceptual designs or outline proposals of the works. The Inspector will examine the initial concept proposals and advise the Duty Holder of any points that may need to be included in the main submission.

47. Providing the Inspector is satisfied with the concept proposal, a “letter of No Objection to Concept” is sent to the Duty Holder, stating any caveats that may apply to the
submission. It should be noted that the issue of a “letter of No Objection to Concept” does not imply that final approval will be granted.

48. Following receipt of a “letter of No Objection to Concept”, the Duty Holder should develop the full proposal and in due course submit detailed designs to HMRI as a formal application.

Detailed Submission

49. In addition to the documentation detailed in Appendix 3A – 3F, supporting documentation may also be required as justifiable evidence in respect of these items.

50. The Inspector will examine the documents submitted and will make an initial judgment of the safety risks involved with the proposals for the works.

51. Providing the Inspector is satisfied with the proposal, a “letter of No Objection to Proposal” is then sent to the Duty Holder, stating any caveats that may apply to the submission. It should be noted that the issue of a “letter of No Objection to Proposal” does not imply that final approval will be granted.

Consent to Bring into Use Prior to Approval

52. Works may not be brought into use until approval has been granted except as allowed by Regulation 4(4).

53. Regulation 4 (4) (a) allows a Duty Holder to bring equipment into use prior to Approval, in order to avoid interruption to operations.

The term ‘necessarily used’ in regulation 4(4)(a) applies to use on a railway in situations where there is no alternative arrangement possible, such as a reasonable diversionary route or an alternative platform, and where the taking out of use of part of the railway would either prevent trains running or cause severe disruption to services.

54. Before Approval is granted it may be necessary to carry out tests or trials on an operational railway to prove satisfactory performance of any works, plant or equipment. In such cases permission may be granted in accordance with regulation 4(4)(b) for it to be brought into use, subject to any conditions the Inspectorate may consider to be necessary. The Inspectorate may wish to carry out an inspection before granting permission for testing. The granting of permission to test should not be taken to imply that Approval will necessarily follow.

55. Regulation 4 (4) (b) (i) allows a Duty Holder to gain authority to use equipment for any testing or trials e.g. testing of a prototype.

56. Regulation 4 (4) (b) (ii) allows a Duty Holder to prove satisfactory performance of new works, plant or equipment in connection with an application for approval.

57. In all such cases, the Duty Holder is still legally responsible for complying with all requirements of Health and Safety Legislation to ensure safety is maintained. This should be done in accordance with the defined requirements of the Duty Holder’s Railway Safety Case (not applicable to those Duty Holders that are not required to hold a Railway Safety Case).

Approval

58. If, prior to final Approval, the proposal is going to be abandoned then the Duty Holder should notify HMRI at any relevant stage up to this point.

59. If the Duty Holder is continuing with the proposal then the works can now be built to the specified designs. The Inspector, where necessary, or where invited by the Duty Holder, may inspect the works to check on progress and conformity to design integrity.

60. On conclusion of the works the Duty Holder will submit a Certificate of Completion (see Appendix 5) to HMRI, where an Inspector will assess the proposal and, if satisfied, a “letter of Approval” will be issued to the Duty Holder.
61. If there are concerns regarding the submission, any items that cannot be accepted will need to be amended or clarified before an Approval letter can be issued by HMRI. If the Duty Holder is not satisfied with the decision made about the application, a review of the decision may be requested as described at paragraph 70.

Process Flow Charts

62. The process flow charts illustrates the typical process to be followed:

- **Figure 1** Classification of works, plant and equipment.
- **Figure 2** The simplified procedure for the Approval of works, plant and equipment.
- **Figure 3** The full procedure for the Approval of works, plant and equipment.
- **Figure 4** The various procedures for bringing equipment into use prior to Approval.
Figure 1: Classification of Works, Plant and Equipment.

- **Do the Works require Approval? (see Appendix 1)**
  - Yes: Seek advice from HMRI
  - No: There is no need to seek Approval

- **Are they minor works? (see Appendix 2)**
  - Yes: Follow Procedure in Figure 2
  - No: There is no need to seek Approval

- **Are you seeking Type Approval?**
  - Yes: Follow Procedure in Figure 3
  - No: Seek advice from HMRI

**Notes:**

1. All references to works include plant and equipment.
2. If there is doubt as to the classification the case should be referred to HMRI.
Figure 2: The Simplified Procedure for the Approval of Works, Plant and Equipment.

START

Duty Holder provides HMRI with details of proposal including Certificate of Compliance

HMRI determines if the works require ROTS approval

No

HMRI advises Duty Holder that submission does not need ROTS approval

No

HMRI advises Duty Holder that the submission is not sufficient

Yes

HMRI assesses detailed proposal and determines if inspection required

No

HMRI determines if the submission is complete

Yes

HMRI issues a "Letter of No Objection to Proposal" to Duty Holder

END

Notes:
1. On confirmation that an inspection is required the process will continue on as the full process from the point of Box E in Figure 3.
2. The point in the full process will be similar to this stage in the simplified process. HMRI will then amend its records to show that the full process is now being followed.

Notes: The Duty Holder is encouraged to contact HMRI if they are unsure if this is the correct process to be used.

Note: The procedure within the shaded area illustrates the decision process in determining if Regulation 4(4) applies.
Figure 3: The Full Procedure for the Approval of Works, Plant and Equipment.

START

Duty Holder provides HMRI with conceptual proposal details

HMRI advises Duty Holder of any further items to be included in the submission

HMRI is satisfied with conceptual proposal submission

No

Yes

HMRI advises Duty Holder of any additional requirements

HMRI is satisfied with detailed proposal submission

No

Yes

HMRI issues a “Letter of No Objection to Proposal” to Duty Holder

Duty Holder builds proposed works and may offer works for informal inspection

HMRI issues an Inspection Report that notified the Duty Holder of any issues

HMRI carries out inspection

No

Yes

HMRI notifies Duty Holder if an inspection/re-inspection is required

HMRI is satisfied with Certificate(s)

No

Yes

HMRI issues “Letter of Approval” to Duty Holder

END

Notes:

1. If the scheme is the subject of a public inquiry, the details submitted to the inquiry should be included in the application. HMRI may choose to give evidence to such an inquiry.

2. The Works should be complete including all necessary testing, at the time of the formal inspection. If they are not, approval will be refused and there may be delays in arranging a further inspection.
Figure 4: The Procedures for Bringing Equipment into Use Prior to Approval.

Note: The area within the dotted line is copied from the shaded area on Figures 2 and 3 for ease of reference purposes only.

The following part of the process will enable the Duty Holder to determine if Regulation 4(4) applies for use prior to approval.

Is it necessary to use the works to avoid interruption of the network?
- No
  - BOX B Regulation 4(4)(a)
    - Duty Holder notifies HMRI of its intent to bring equipment into use under Regulation 4(4)(a)
    - HMRI notes intention
    - Return to Box A on Figure 2 or 3 (as applicable)

- Yes
  - Is it to provide the testing and trial of a prototype?
    - No
      - BOX C Regulation 4(4)(b)(i)
        - Duty Holder requests to bring into use under Regulation 4(4)(b)(i) as a prototype for trial
        - HMRI agrees scope of the trial and gives authority for use over the specified time period
        - Duty Holder produces a report and a copy is sent to HMRI for Type Approval (if required)
        - The Duty Holder notifies HMRI that the equipment has been removed from the network
        - HMRI Assesses the report
        - Return to Box A on Figure 2 or 3

    - Yes
      - BOX D Regulation 4(4)(b)(ii)
        - Duty Holder requests Consent to Trial under Regulation 4(4)(b)(ii) to obtain information to support the approval application for new and novel equipment
        - HMRI agrees scope of the trial and gives authority for use over the specified time period
        - Duty Holder produces a report and a copy is sent to HMRI for Type Approval (if required)

Is there a requirement to provide information to support the approval application for new and novel equipment?
- No
  - Regulation 4(4) does not apply to this application and the process can continue (refer back to Figure 2 or 3 as appropriate)

- Yes
  - Is it necessary to use the works to avoid interruption of the network?
    - No
      - Return to Box A on Figure 2 or 3 (as applicable)
    - Yes
      - Is it to provide the testing and trial of a prototype?
        - No
          - HMRI notes intention
          - Return to Box A on Figure 2 or 3 (as applicable)
        - Yes
          - BOX C Regulation 4(4)(b)(i)
            - Duty Holder requests to bring into use under Regulation 4(4)(b)(i) as a prototype for trial
            - HMRI agrees scope of the trial and gives authority for use over the specified time period
            - Duty Holder produces a report and a copy is sent to HMRI for Type Approval (if required)
            - The Duty Holder notifies HMRI that the equipment has been removed from the network
            - HMRI Assesses the report
            - Return to Box A on Figure 2 or 3

Notes:
1. HMRI may visit site at any stage during testing and trials.
2. A formal inspection may also be required under Reg 4(4)(b)(ii).
3. The area within the dotted line is copied from the shaded area on Figures 2 and 3 for ease of reference purposes only.
ON-SITE INSPECTIONS

63. a) The need for on-site inspections will depend on the nature of the project and the safety risks involved in respect of each application. The Inspector will advise if on-site inspection is required.

b) On-site inspection may be essential if the project involves a green field site; novel equipment; major infrastructure changes; high safety risks; existing complications within the infrastructure or the systems and equipment in use.

c) On-site inspections are carried out in order that the Inspector may obtain a general appreciation that work has been carried out as proposed by the Duty Holder. The Inspector will also want to ensure that compliance with Health and Safety Legislation is maintained during the development of the project and this may involve checking that the Duty Holder is following the necessary Safety Management Systems (SMS) set out in their Railway Safety Case.

d) Duty Holders should note that during on site inspections HMRI will choose to inspect those areas of safety that they deem necessary and therefore Duty Holders should not rely on HMRI to be a ‘design checker’.

Process of On-Site Inspection

64. a) If the Inspector decides that a site inspection is required, the Duty Holder will be asked to advise when the site is ready for inspection.

b) The Inspector may decide to carry out a pre-inspection walkthrough of the works. This will be an initial, informal walkthrough to view progress and to see how the project will affect the existing infrastructure, if appropriate.

c) Following successful inspection after receiving the Certificate of Completion and close-out of any comments or issues requiring clarification, the Inspectorate may be in a position to issue a letter of Approval.

SUBMISSION INFORMATION

Basic Proposal Detail

65. The information below should be supplied for every proposal, preferably at an early stage of the Approval process and ideally before the concept stage.

a) Project/Scheme Title

The title of the Project or Scheme should be provided, along with any specific identifying sub-title particularly if the project or scheme is part of a larger project or scheme.

Examples:

Rolling Stock:

• This may include the Class or Sub-class of train.

Signalling:

• This may include the start and end of the section of track where modifications to signalling are taking place.

b) Details of the Duty Holder

Details should be provided of the Duty Holder (DH). This should include the name of the DH, and the full postal address of the DH’s Registered Office.

c) Details of the Duty Holder’s Representative

Details should be provided of the DH’s Representative. This should include, where possible, the contact name, the position of the contact in the organisation, the specific responsibilities of the contact with respect to the submission, the full
postal address, contact telephone number, mobile telephone number, contact facsimile number and e-mail address.

d) HMRI Details

If the DH has had any prior involvement or discussions with HMRI about the Project/Scheme, details should be included. If there is a HMRI file reference and/or Proposal number (PR)/Case number (CN), then details should be provided. Details of any HMRI Inspector previously involved with the scheme should also be provided if appropriate.

Concept Stage

66. The information below usually needs to be supplied at the concept stage:

a) Project/Scheme Overview

A summary of the scope of the works for the Project/Scheme under which the application for Approval is being submitted. Details of any new or novel systems or equipment being introduced should also be included. An outline of the extent of the works needs to include details of the interface with old and new systems. Information should also be given of the way the works are being carried out.

Examples:

- Renewal of life-expired.
- Capacity enhancement.
- Upgrading to current standards.

b) Operating Parameters

Details of the operating parameters of the works should be provided. Evidence should be sufficient in detail to support a compliance statement. Any special provisions, non-compliances and operational limitations should be stated.

Examples:

Rolling Stock:

Evidence should be provided about the Route Acceptance strategy and the anticipated duty of the new or altered Rolling Stock including:

- Operational & Diversionary routes.
- Method of operation – Conductor operated; Driver Only Operation; Selective Door Operation.

Stations:

Evidence should be provided of platform heights, anticipated passenger flow, and types of trains using the station.

c) General Description of Systems

i) A description should be provided of the systems affected by the Project/Scheme. It should correspond to a drawing, sketch or scheme plan (including the drawing reference, issue date and version number) that is enclosed with the submission.

ii) A detailed description of the Project/Scheme should be provided, stating any new arrangements that will be in force. The benefits of carrying out the works should be stated, with particular emphasis on safety.

d) Items not Covered by the Project/Scheme

Details should be provided of the extent of the Project/Scheme, including any items that, although not directly within the scope or the area of the works, may
affect (or be affected by) the overall proposals. Details of any existing non-
compliances or abnormal arrangements within the area, although not being
altered under the proposals, should also be included.

e) Potential Issues

Evidence should be provided to show due consideration of issues as a result of
statutory conditions (e.g. Transport & Works Act, Planning Consent/
requirements, Inquiry conditions and listed building considerations, etc). This
evidence may include:

- Consultation with stakeholders.
- Outline design proposals.
- Statutory conditions and limitations.
- Evidence of any consequential non-compliances.

Detailed Proposal Stage

67. The following details are essential for the main submission.

a) Design Scope

Evidence will need to be provided about the Technical Specification
documentation including:

- Scope documents (e.g. drawings).
- Technical description.
- The scrutiny process undertaken e.g. Independent Safety Assessor (ISA),
  Vehicle Acceptance Body (VAB).

b) Operational Limitations

Evidence should be provided of the operational limitations.

Examples:

Stations:

- Type and number of trains using the proposed station/platform.
- Staffing levels.
- Hours of operation.

Energy:

- Timetable demand.
- Spare capacity.

c) Novel and Complex Equipment

i) Evidence should be provided about how novel and/or complex the
equipment is in design, installation, maintenance and performance under
normal and degraded conditions, and the operating capacity of the
equipment.

ii) If available, evidence of same or similar equipment in use elsewhere,
should be provided along with proof of satisfactory performance in similar
operating conditions.
**Examples:**

**Stations:**
- At the specification stage, manufacturer’s data, Acceptance by Network Rail Design Assurance Group (DAG) and validation by an independent assessor are all valid form of evidence.

**Energy:**
- Types of Feeder Systems.

**Signalling:**
- Independent Safety Assessment recommendations.

**d) Human Factors Studies**

i) It is expected that these will have been undertaken where submissions have new or changed operational conditions.

ii) Evidence of how these studies have been evaluated and incorporated in the design should be provided.

**Examples:**

**Rolling Stock:**
- A human factors study would be expected when introducing Selective Door Operation (SDO) or Driver Only Operation (DOO) systems.

**Signalling:**
- Human factors study would have taken place for new signalling control rooms.

**e) Interfaces**

A description of any interfaces included within the Safety Case should be provided, along with the Certificate of Compliance with legislation and standards.

**f) System Interfaces**

i) Evidence should be provided showing consideration of the subsystem interface with other parts of the railway system (e.g. stations, electrical clearances, electrical bonding, signal sighting, level crossings and train compatibility/ride quality).

ii) The evidence to be provided would include:
  - Design.
  - Cross-check/review.
  - Confirmation of codes and standards.
  - Confirmed non-compliances/special arrangements.
  - Risk assessments and operational limitations.

**Examples:**

**Rolling Stock:**
- Evidence that running the equipment will not affect the operation of signals.
- Evidence of consideration of platform stepping distances and platform heights.
Infrastructure:

- Evidence that the platform/train interface has been considered included in the Certificate of Compliance.
- Evidence that consultation has taken place with drivers, human factors specialists, signal sighting specialists and Train Operating Companies.

Stations:

- Evidence should be provided in the design specification to show compliance with relevant standards.

Energy:

- Confirmation that suitable and sufficient electrical clearances have been provided.
- Confirmation that warning signs have been fitted.
- Consideration should also be given to traction power systems.
- Evidence that relevant agreement on interfaces has been carried out with other parties such as Electrical Supply Industry (ESI), Regional Electricity Companies (REC), Signal Systems designers.
- Evidence should be provided that security issues specific to OLE are adequate and attention has been paid to those areas where the public could come into contact with live equipment.
- Evidence of the compatibility of the contact systems/train under all conditions of operation.

Signalling:

- Evidence of compatibility between new and existing Interlockings.

   g) Stakeholder Interfaces

   Evidence to confirm that agreement on interfaces has been carried out with other relevant parties such as Train Operators, Station Operators, Highways Authorities, Environment Agency, Local Authorities and the Infrastructure Maintainer. This evidence could include letters of agreement and resulting requirements such as confirmed non-compliances and operational limitations. Evidence of any Public consultations that have been carried out should also be provided.

   h) Key Project Milestones & Commissioning Dates

   Details of the proposed commissioning dates and project milestone dates should be provided for HMRI resourcing and planning purposes. Any interim arrangements, such as stagework commissioning, should also be provided.

   i) Hazards and Mitigation

   Submissions for Approval should contain adequate and appropriate risk identification and risk control measures in accordance with recognised methods and ALARP principles. Evidence provided may include:

   - Risk assessments
   - Hazop/Hazid reports
   - Hazard logs
   - Process for reviews
   - Close out of existing open hazards.
Examples:

Rolling stock:

- Failure Modes Effects Criticality Analysis (FMECA).
- Fault Tree Analysis (FTA) should be completed.

Energy:

- Identification of exposed Feeders and buried cables.

Signalling:

- Over run Risk Assessment.

j) Maintainability

i) Evidence should include showing how issues about the ongoing maintenance of the scheme/subsystem, such as accessibility, has been considered in the project design.

ii) The evidence may include; general arrangements and drawings, confirmation of codes/standards, risk assessments, confirmed non-compliances/special arrangements, operational limitations, and any consultation with the maintainer.

k) Certificate of Compliance

This Certificate should include the contents detailed in Appendix 4 of this guide. The Certificate of Compliance must be signed by the Authorised Signatory. This may not necessarily be the Representative named in Paragraph 65 (c) of this guide.

Specific Evidence

68. Examples of specific evidence can be found in Appendix 3A – 3F

Appendix 3A – Rolling Stock
Appendix 3B – Infrastructure
Appendix 3C – Stations
Appendix 3D – Energy
Appendix 3E – Signalling
Appendix 3F – Tramways and Light Rapid Transit Systems

Final Approval

69. The results of any testing or trials should be supplied at this stage if not already submitted. The Certificate of Completion usually needs to be supplied at the Approval stage. This Certificate should include the contents detailed in Appendix 5 of this guide. The Certificate of Completion must be signed by the Authorised Signatory. This may not necessarily be the Representative named in Paragraph 65 (c) of this guide.

THE REVIEW PROCESS (INTERIM)

70. HSE has a policy of openness and accountability. HMRI intends to consult with industry on a formal review procedure for the reviewing of any decision made by the Inspectorate with regards to the Approval process in due course.

71. In the interim, any Duty Holder who disagrees with a decision made by HMRI or the manner in which it was made may wish to put their comments in writing and request that HMRI review the decision. Requests for a review should be made within 60 days of the date of the notification of the decision in question and should be made in writing to HMRI to the address given in Paragraph 42.
72. Any request for review should include:
   - Details of the project, including the HMRI proposal reference/case number.
   - An outline of the matter and reasons for the dispute.
   - Such information and evidence as the Duty Holder feels is necessary to explain and justify the arguments being made, including any new information, which may include evidence from independent experts.

73. HMRI will acknowledge receipt of the review and set out the timescale for, and how the request will be dealt with.
APPENDIX 1 – SUMMARY OF WORKS, PLANT AND OTHER EQUIPMENT
NOT REQUIRING APPROVAL

The following summary covers the major areas of work given dispensation in the General Notices issues under the ROTS. The summary is only intended as an ease of reference guide and should not be used as the definitive list of dispensations.

<table>
<thead>
<tr>
<th>Description of works, plant and equipment in General Notice</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
</tr>
<tr>
<td>Works plants and equipment located away from the path of vehicles.</td>
<td>Appendix 1A Clause 1</td>
</tr>
<tr>
<td>Removal or discontinuance of any works, plant or equipment.</td>
<td>Appendix 1A Clause 4</td>
</tr>
<tr>
<td>Temporary track, signalling or bridge works.</td>
<td>Appendix 1A Clause 5</td>
</tr>
<tr>
<td>All altered works that can be classed as renewals.</td>
<td>Appendix 1E Clause 1</td>
</tr>
<tr>
<td><strong>Infrastructure (including Permanent Way and Bridges)</strong></td>
<td></td>
</tr>
<tr>
<td>Private sidings and other lines not used for the conveyance of passengers.</td>
<td>Appendix 1A Clause 2</td>
</tr>
<tr>
<td>Alterations to works, plant or equipment to enable the speed of operation of vehicles using any section of railway to be increased.</td>
<td>Appendix 1A Clause 8</td>
</tr>
<tr>
<td>Works to stabilise embankments and cuttings.</td>
<td>Appendix 1A Clause 9</td>
</tr>
<tr>
<td>All minor alterations to track layout.</td>
<td>Appendix 1E Clause 2</td>
</tr>
<tr>
<td>All plain line and crossover renewals.</td>
<td>Appendix 1E Clause 3</td>
</tr>
<tr>
<td>Reconstruction and stabilisation of coastal, sea, river and estuarial defences.</td>
<td>Appendix 1E Clause 4</td>
</tr>
<tr>
<td>All line side fencing.</td>
<td>Appendix 1E Clause 5</td>
</tr>
<tr>
<td>Installation and renewal of trackside walkways.</td>
<td>Appendix 1E Clause 6</td>
</tr>
<tr>
<td>All new and altered bridges.</td>
<td>Appendix 1E Clause 7</td>
</tr>
<tr>
<td>Undertrack crossings</td>
<td>Appendix 1E Clause 8</td>
</tr>
<tr>
<td>All drainage schemes.</td>
<td>Appendix 1E Clause 9</td>
</tr>
<tr>
<td>Line side signage works.</td>
<td>Appendix 1E Clause 10</td>
</tr>
<tr>
<td><strong>Signalling (including Telecommunications)</strong></td>
<td></td>
</tr>
<tr>
<td>The repositioning of any signal to facilitate improved sighting.</td>
<td>Appendix 1A Clause 10</td>
</tr>
<tr>
<td>The erection of additional signal supporting structures.</td>
<td>Appendix 1A Clause 12</td>
</tr>
<tr>
<td>Replacement of any existing signalling equipment with equipment of a different type.</td>
<td>Appendix 1A Clause 13</td>
</tr>
<tr>
<td>Works, plant and equipment installed for the purpose of bringing into service a train protection system.</td>
<td>Appendix 1B Clause 2</td>
</tr>
<tr>
<td>Bringing into service TPWS or TPWS+</td>
<td>Appendix 1D Clause 4</td>
</tr>
<tr>
<td>All signalling alterations associated with renewal/repositioning of Switches &amp; Crossings (S&amp;C).</td>
<td>Appendix 1E Clause 12</td>
</tr>
<tr>
<td>Provision of Automatic Warning System (AWS).</td>
<td>Appendix 1E Clause 13</td>
</tr>
</tbody>
</table>
All SPAD mitigation works.

Stations / Other stopping places

The erection of simple shelters.
The provision of station furniture.
The heating, lighting or ventilation of stations.
The provisions of temporary means of access or egress
The lengthening of platforms at an existing station.
New or altered lifts or escalators providing access to or within a station.
The provision of equipment for the dissemination of passenger information.
The installation of automatic ticket gate equipment.
Construction of new stations of no more than two platform faces.

Level Crossings

Alterations the subject of a statutory order to any level crossing.
Level crossings for the sole use of employees of the relevant transport system.

Energy (including Electrical)

Power and transmission plant and equipment.
The erection of additional overhead line supporting structures.
Minor alterations to the nature or extent of the conductor rail installations.
All new power distribution works.
All asset replacement switchgear.

Rolling Stock (including Rail-mounted Vehicles)

Production models of a vehicle for which type Approval of its prototype has been given.
Vehicles which do not operate at a time when the relevant transport system concerned is open to normal traffic.
Installation of train data recorders or on-train maintenance recorders to existing vehicles.
All renewals and upgrades of vehicle subsystems.
All internal cosmetic vehicle refurbishment.
Any Internationally registered freight vehicles.

Other Plant and Equipment

Non-rail-mounted plant or equipment.
Telecommunications plant or equipment not essential to safe operation.
Components and subassemblies for plant and equipment.
APPENDIX 1A – INITIAL GENERAL NOTICE

Approval will not be required for maintenance and repair of existing works, plant or equipment. The replacement of components with approved components of a similar or higher specification than those being replaced with no change in operating characteristics of the system shall constitute maintenance and will not require Approval. No maintenance or repair work should infringe upon standards of safety. The Secretary of State gave general notice, the text of which is set out below, that certain works, plant and equipment would not be required to be submitted for Approval.

General notice

The Secretary of State, pursuant to Regulation 10(1)(b) of the above mentioned Regulations, hereby gives general notice that he has determined that the requirement to comply with regulation 4 of the Regulations (obligation to obtain Approval to the bringing into use of new or altered works, plant or equipment) may be dispensed with in respect of the works, plant and equipment described in the first column of the Schedule hereto subject to the conditions (if any) respectively appearing opposite each such description in the second column thereof.

This notice is to come into effect on 5 April 1994.

Signed

J DENNING
Assistant Secretary, Department of Transport
10 February 1994

SCHEDULE

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of works, plant and Equipment</td>
<td>Conditions to which made subject</td>
</tr>
</tbody>
</table>

**General**

1. Works, plant and equipment located away from the path of vehicles using the relevant transport system concerned, but excluding signalling or other control works, plant or equipment necessary for the safe operation of the system, irrespective of location.

2. Private sidings and other lines not used for the conveyance of passengers within the curtilage of premises other than those forming part of the undertaking of the relevant transport system concerned, but excluding those crossed by a public right of way (whether or not on the same level).

The intended location of the works, plant or equipment is to be sufficiently distant from such paths as to ensure that their installation and presence thereafter does not jeopardise the safe operation of the system.
(1)  (2)

3 Minor improvements to works, plant or equipment (other than vehicles), including-

Improved lineside fencing; improved station lighting; and station concourse or platform resurfacing.

The work when carried out is not to result in any reduction of standards of safety.

4 Removal or discontinuance of any works, plant or equipment.

The work when carried out is not to result in any change in the method of using or operating any remaining works, plant or equipment.

5 Temporary track, signalling or bridge works not in place for more than 6 months and excluding any which are extensive or novel in character.

Permanent way

6 Minor trackwork schemes designed to facilitate improved running, including –

Installation of trailing connections; and relocation of facing crossovers, other than those laid in a street.

The work when carried out is not to result in any alteration to signalling controls.

7 Track realignments not requiring specific statutory authority, but excluding any located at or near to a bridge, tunnel, level crossing or station.

The work when carried out is to continue to meet safety standards in respect of any existing cess or safe walking route.

8 Alterations to works, plant or equipment to enable the speed of operation of vehicles using any section of railway to be increased by not more than one third of the permitted line speed for that section at the date on which this notice comes into effect, except –

where the section passes through a station or tunnel or crosses a public level crossing; or
where the existing line speed for the section is the subject of a relevant operational limitation.

Where the speed of operation is increased on more than one occasion, the aggregate of all such increases is not to exceed one third of the permitted line speed at the date referred to in column (1). The speed of operation is in no circumstances to exceed 125 miles per hour.

9 Works to stabilise embankments and cuttings.

The work when carried out is not to result in any reduction of structure gauge or in the width of any existing cess or safe walking route.

22
Signalling

10 The repositioning of any signal to facilitate improved sighting.

11 Minor track alterations. The work when carried out is not to result in any alteration to signalling controls or give rise to need to vary safe braking distances or overlaps.

12 The erection of additional signal supporting structures. The work when carried out is not to result in any alteration to the signalling arrangements and full clearances are to be provided.

13 Replacement of any existing signalling equipment with equipment of a different type. The new equipment must have received type Approval or be of a type which is in general use and which can be demonstrated to be no less safe in operation: provided in either case that no change of operating characteristics is to be involved.

Stations and other stopping places

14 The erection of simple shelters at stations and other stopping places.

15 The provision of station furniture, including seats, ticket machines and similar equipment on platforms or equivalent equipment at other stopping places. The furniture must not materially prevent or impede the movement of persons.

16 The heating, lighting or ventilation of stations, except where such systems are essential for emergency evacuation or to support life.

17 The provision of temporary means of access or egress (including by means of a footbridge) and the erection of temporary barriers. The work is not materially to impair existing safety standards at the location concerned.

Bridges

18 Minor reconstruction of any part of a bridge, but excluding any reconstruction of a station footbridge. The work is not to involve any significant change of design or any reduction of structure gauge. All reconstructed parts (including parapets) are to comply with safety standards laid down by any of the bodies specified in regulation 8(1)(a) or (b) of the above-mentioned Regulations and current at the time that the work is carried out.
<table>
<thead>
<tr>
<th>Level crossings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19 Alterations the subject of a statutory order to any level crossing.</td>
<td>The work is not to involve any consequential alterations to track or signalling.</td>
</tr>
<tr>
<td>20 Level crossings for the sole use of employees of the relevant transport system.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electrical</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>21 Power and transmission plant and equipment.</td>
<td>The plant or equipment is to comply with safety standards laid down by any of the bodies specified in regulation 8(1)(a) or (b) of the abovementioned Regulations and current at the time that the work is carried out.</td>
</tr>
<tr>
<td>22 The erection of additional overhead line supporting structures.</td>
<td>The work when carried out is not to result in any alteration to the electricity supply arrangements and full clearances are to be provided.</td>
</tr>
<tr>
<td>23 Minor alterations to overhead electrical line works, plant or equipment.</td>
<td></td>
</tr>
<tr>
<td>24 Minor alterations to the nature or extent of conductor rail installations but excluding such alterations at locations to which the public has access.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rail-mounted vehicles</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Production models of a vehicle for which type Approval of its prototype has been given.</td>
<td>The vehicles are to conform in all significant respects with the prototype and with any relevant operational limitation to which Approval of the prototype has been made subject.</td>
</tr>
<tr>
<td>26 Vehicles which do not operate at a time when the relevant transport system concerned is open to normal traffic.</td>
<td>The vehicles are not to operate on any part of a relevant system which is installed along a street.</td>
</tr>
</tbody>
</table>
27 Alterations to vehicles of the following character—

- decorative changes, other than external front-end colour where this has been made a specific requirement;
- changes to panelling, upholstery or other materials;
- changes to interior lighting or to public address equipment; and
- other minor modifications which do not materially affect safety.

The new panelling or material is to be of a standard no less safe than that which it is to replace. The work when carried out is not to result in any reduction of standards of safety.

28 Changes to components or subassemblies forming part of the equipment of a vehicle.

The components or sub-assemblies are to comply with the standards of any of the bodies specified in regulation 8(1)(a) or (b) of the abovementioned Regulations current at the time that the work is carried out and are not to reduce the standard of safety of the system of which the components or sub-assemblies form part.

Other plant and equipment

29 Production models of plant or equipment for which type Approval of its prototype has been given.

The plant or equipment is to conform in all significant respects with the prototype and with any relevant operational limitation to which Approval of the prototype has been made subject.

30 Non-rail-mounted plant or equipment for use in the maintenance of a relevant transport system.

31 Telecommunications plant or equipment not essential to the safe operation of the relevant transport system concerned.

32 Components and subassemblies for plant and equipment

The components or sub-assemblies are to comply with the standards of any of the bodies specified in regulation 8(1)(a) or (b) of the abovementioned Regulations and current at the time that the work is carried out.
APPENDIX 1B – SUPPLEMENTARY GENERAL NOTICE

EFFECTIVE DATE 1 JUNE 2000

The Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994

General notice

1 The Health and Safety Executive, pursuant to regulation 10(1)(b) of the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994, (a) (as amended) (‘the Regulations’), hereby gives general notice that it has determined that the requirement to comply with regulation 4 of the Regulations (obligation to obtain Approval to the bringing into use of new or altered works, plant or equipment) may be dispensed with in respect of the works, referred to in paragraph 2 and subject to the conditions set out in paragraph 3.

2 The works referred to in paragraph 1 are:

   Works, plant and equipment installed for the purpose of bringing into service a train protection system required by the Railway Safety Regulations 1999. (b)

3 The conditions referred to in paragraph 1 are:

   I. The works shall be implemented in accordance with a programme approved by the Health and Safety Executive pursuant to regulation 3(2) of the Railway Safety Regulations 1999.

   II. Each part of the system which has been brought into service under the programme referred to in sub-paragraph (i) is maintained in service.

   III. Any equipment forming part of the train protection system referred to in sub-paragraph (i) shall be of a type approved by the Health and Safety Executive under regulation 6 (type Approval of plant and equipment) of the Regulations.

   IV. With regard to rolling stock, a Certificate of Compliance in accordance with Appendix 3 of the Regulations is to be submitted to the Health and Safety Executive for each vehicle type fitted. A Certificate of Completion for each vehicle type shall also be submitted in due course.

4 The notice shall come into effect on the date of signature.

Signed David Sawer

Date 1 June 2000

A person authorised by the Health and Safety Executive to act on its behalf.

(a) S.I. 1994/157; amended by S.I. 1997/553
(b) S.I. 1999/2244
APPENDIX 1C – SUPPLEMENTARY GENERAL NOTICE

EFFECTIVE DATE 22 DECEMBER 2003

The Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994

The Health and Safety Executive has given a general notice, the text of which is set out below, that certain works, plant and equipment would not be required to be submitted for Approval.

General notice

The Health and Safety Executive, pursuant to regulation 10(1)(b) of the above mentioned Regulations, hereby gives general notice that they have determined that the requirement to comply with regulation 4 of the Regulations (obligation to obtain Approval to the bringing into use of new or altered works, plant or equipment) may be dispensed with in respect of the works, plant and equipment described in the first column of the Schedule hereto subject to the conditions (if any) respectively appearing opposite each such description in the second column thereof.

This notice is to be read in conjunction with the general notice issued by the Secretary of State on 10 February 1994.

This notice is to come into effect on 22 December 2003.

Signed SAC Williams Date 12 December 2003

A person authorised by the Health and Safety Executive to act on its behalf.

SCHEDULE

<table>
<thead>
<tr>
<th>(1) Description of works, plant and equipment</th>
<th>(2) Conditions to which made subject</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stations and other stopping places</strong></td>
<td></td>
</tr>
<tr>
<td>1    The lengthening of platforms at an existing station.</td>
<td>The work is not to involve any change in signal sighting, location or controls or give rise to the need to vary safe braking distances or overlaps.</td>
</tr>
<tr>
<td>2    New or altered lifts or escalators providing access to or within a station.</td>
<td>The work is not to involve lifts or escalators at a station that would be covered by regulation 12 of the Fire Precautions (Sub Surface Railway Stations) Regulations 1989. 21</td>
</tr>
<tr>
<td>3    The provision of equipment for the dissemination of passenger information, or the installation of closed circuit television (CCTV) systems or equipment.</td>
<td>The location of equipment must not cause an obstruction (which could adversely affect safety) either in its own right or as a result of predictable passenger queuing to obtain the information.  The works are not to include systems that are used for the dissemination of emergency or safety information to staff or passengers, this includes CCTV systems used for train dispatch or station safety.</td>
</tr>
</tbody>
</table>
4  The installation of automatic ticket gate equipment.

   The work is not to involve:
   • any equipment not previously approved or agreed with the Inspectorate;
   • any scheme where total bi-directional peak passenger flows for the station exceed 750 per 5 minute period;
   • any installation at a station covered by regulation 12 of the Fire Precautions (Sub Surface Railway Stations) Regulations 1989; and
   • proposals for any form of remotely monitored or unstaffed gateline operation.

   The work is to conform to relevant national or international standards.

Bridges

5  Minor reconstruction of any part of a footbridge, at a station or elsewhere, excluding those constructed over railways electrified with overhead line equipment.

   The work is not to involve any significant change of design or any reduction of structure gauge. All reconstructed parts (including parapets) are to comply with safety standards laid down by any of the bodies specified in regulation 8(1)(a) or (b) of the above-mentioned Regulations and current at the time that the work is carried out.

6  Installation of train data recorders or on-train maintenance recorders to existing vehicles.

   • The OTMR must not compromise any vital train control system.
   • The installation must not directly or indirectly affect vehicle integrity.
   • The equipment must not cause distraction to the driver.
APPENDIX 1D – SUPPLEMENTARY GENERAL NOTICE
EFFECTIVE DATE 2 DECEMBER 2003


General notice

1. The Health and Safety Executive (‘the Executive’), pursuant to regulation 10(1)(b) of the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 (‘ROTS’), hereby gives general notice that subject to paragraph 5 it has determined that the requirement to comply with regulation 4 of ROTS may be dispensed with in respect of the works described in paragraph 4 subject to the conditions set out in paragraph 6.

2. This notice should be read in conjunction with the General Notice given by the Executive on 1 June 2000 pursuant to regulation 10(1)(b) of ROTS in respect of works, plant and equipment installed for the purpose of bringing into service a train protection system required by the Safety Regulations (‘the 2000 General Notice’).

3. In this general notice –
   ‘fitted rolling stock’ means rolling stock in which has been installed works, plant and equipment for the purpose of bringing into service TPWS or TPWS+;
   ‘the HSI Regulations’ means the Railways (Interoperability)(High-Speed) Regulations 2002 (SI 2002/1166);
   ‘Network Rail’ means Network Rail Infrastructure Limited whose registered office is at 40 Melton Street London NW1 2EE;
   ‘overspeed sensor’ means an arming loop followed by a trigger loop fitted to the track at a set distance before a signal according to speed and gradient;
   ‘railway’ has the meaning it has in the Schedule to the Safety Regulations;
   ‘the Safety Regulations’ means the Railway Safety Regulations 1999 (SI 1999/2244);
   ‘stop signal’ has the same meaning as it has in the Safety Regulations;
   ‘TPWS’ means a train protection and warning system;
   ‘TPWS+’ means a train protection and warning system which has been enhanced to provide protection for trains operating at higher speeds by the fitment of additional overspeed sensors;
   ‘train’ has the meaning it has in s83(1) of the Railways Act 1993;
   ‘train protection and warning system’ means equipment which causes the brakes of a train to apply automatically if the train:
   (a) passes without authority a stop signal such passing of which could cause the train to collide with another train, or
   (b) travels at such speed as could cause the train to collide with another train or derail from track which forms part of a railway.

4. Subject to paragraph 5, the works referred to in paragraph 1 are:
   (a) the works, plant and equipment installed for the purpose of bringing into service TPWS;
   and
   (b) the works, plant and equipment installed for the purpose of bringing into service TPWS+.

5. The works, plant and equipment described in paragraph 4 shall not include the works, plant and equipment referred to in paragraph 1 of the 2000 General Notice.
6. The conditions referred to in paragraph 1 are:
the works, plant and equipment referred to in paragraph 4(b) shall be installed in accordance with technical principles proposed by Network Rail and accepted in writing by the Executive;
either:
(a) the works, plant and equipment referred to in paragraph 4 shall be of a type approved by the Executive under regulation 6 of ROTS; or
(b) the works, plant and equipment referred to in paragraph 4 are subject to the requirements of regulations 11 to 17 of the HSI Regulations;
in respect of fitted rolling stock, and before such fitted rolling stock is brought into use, there shall be submitted to the Executive either:
(a) a certificate of conformity in the form set out in Schedule 3 to ROTS given by the manufacturer of the fitted rolling stock in question pursuant to regulation 7(2) of ROTS; or
(b) where the rolling stock is the first of rolling stock of the same standards and specifications to be so fitted and placed in service, a technical file within the meaning of the HSI Regulations.

7. This notice shall come into effect on the date of signature.

Signed SAC Williams Date 2 December 2003

A person authorised by the Executive to act on its behalf.
APPENDIX 1E – SUPPLEMENTARY GENERAL NOTICE

EFFECTIVE DATE AS AT THE DATE OF SIGNATURE

Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 (“ROTS”)

The Health and Safety Executive (“the Executive”) has given general notice, the text of which is set out below, that certain works, plant and equipment will not be required to be submitted for approval.

General Notice

The Executive, pursuant to regulation 10(1)(b) of ROTS, hereby gives general notice that it has determined that the requirement to comply with Regulation 4 of ROTS (obligation to obtain approval prior to the bringing into use of new or altered works, plant or equipment) may be dispensed with in respect of the works, plant and equipment described in the first column of the Schedule hereto subject to the conditions (if any) respectively appearing opposite each such description in the second column thereof.

This notice is to be read in conjunction with the general notice issued by the Secretary of State on 10 February 1994, and the general notices issued by the Executive on 1 June 2000, 2 December 2003 and 12 December 2003.

This notice is to come into effect on the date of signature.

Signed D Hill

Date: 28 February 2005

A person authorised by the Executive to act on its behalf.

SCHEDULE

<table>
<thead>
<tr>
<th>Description of works, plant and equipment</th>
<th>Conditions to which made subject</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of works, plant and equipment</strong></td>
<td><strong>Conditions to which made subject</strong></td>
</tr>
<tr>
<td>General</td>
<td></td>
</tr>
<tr>
<td>1. All altered works that can be classed as renewals, to include like for like or replacement with a functionally equivalent alternative (not including altered works specifically covered by the following paragraphs)</td>
<td>There must be no change in the safe operation of the works, plant or equipment, or any change to the interface with other systems and/or equipment.</td>
</tr>
<tr>
<td>Infrastructure (including Permanent Way and Bridges)</td>
<td></td>
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<tr>
<td>2. All minor alterations to track layout, other than the replacement of a double junction with a single-lead junction, or the removal of trap points or reduction of flank protection.</td>
<td></td>
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<tr>
<td>3. All plain line and crossover renewals that do not use novel track fixings and supports.</td>
<td>The works when carried out should not result in the reduction of current clearances. See 12 for signalling conditions.</td>
</tr>
<tr>
<td>4. Reconstruction and stabilisation of coastal, sea, river and estuarial defences.</td>
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</tbody>
</table>
5. All line side fencing.

6. Installation and renewal of trackside walkways.

7. All new and altered bridges of 70m or less in total length and/or less than 4 spans, and/or those not of novel design.

8. Undertrack crossings having a diameter of less than one metre (any crossing more than one metre will be considered a bridge).

9. All drainage schemes.

10. Line side signage works except those associated with other works, plant or equipment for which approval is required.

**Signalling (including Telecommunications)**

11. Any signalling work associated with paragraph 2 above.

12. All signalling alterations associated with renewal/repositioning of Switches & Crossings (S&C), but excluding any signalling project which involves remodelling.


14. All SPAD mitigation works.

**Stations /Other stopping places**

15. Construction of new stations of no more than two platform faces, with single storey buildings, no adjacent level crossings and, where overhead line equipment (OLE) is present, no canopy or footbridge. Excluding sub surface stations or stations with elevated platforms. Does not include works that permanently affect signal sighting or train door operation.

**Energy (including Electrical)**

16. All new power distribution works including sub stations, feeder stations, switching stations and track paralleling huts.

Structure gauge clearances must be maintained.

Provided there are no material changes to the signalling controls or overrun distance.

Provided that no additional signalling works are being carried out at the same time.

Clearances on footbridges must be maintained or improved. All works on existing stations including the renewal of footbridges, re-gauging or alignment of platforms to meet current boarding and alighting requirements.
17. All asset replacement of oil-filled switchgear (Air Insulated Switchgear (AIS) or Gas Insulated Switchgear (GIS)) with SF6, vacuum interrupters, or modern equivalent form.

Rolling Stock (including Rail-mounted Vehicles)

18. All renewals and upgrades of vehicle subsystems provided that the interfaces, functionality, and transfer functions of control systems remain the same.

19. All internal cosmetic vehicle refurbishments using modern equivalent materials.

20. Any freight vehicles that are registered by International Union of Railways (U.I.C.) or Regulations governing the exchange of International Railway Wagons (R.I.V.) standards.

Performance of the subsystem must not be reduced. Performance of the vehicle must not be materially altered and equivalent levels of safety must be maintained.

All materials must be to the latest fire specifications.

The vehicles must not have been modified since being registered to these standards.
APPENDIX 2 – MINOR WORKS

The following works should be considered as minor works, which will normally be approved in accordance with the simplified self-certification procedure. If it is not clear if the works, plant or equipment are considered as minor, then the Duty Holder is strongly encouraged to seek advice from the Inspectorate who will determine the correct procedure to follow.

Signalling

1. The transfer of control from one signal box/signalling centre to another without alterations to the interlocking arrangements.

2. The removal or inhibition of signalled routes.

Stations

3. Minor new building, or altered means of public access, on existing stations, except that lifts or escalators at a station covered by Regulation 12 of the Fire Precautions (Sub Surface Railway Stations) Regulations 1989 are to be inspected for access and egress before being taken into use.

   Examples of “minor new buildings” would be simple single storey structures without a canopy but located on a platform such as an enclosed waiting room or a storeroom.

Electrification

4. All electrification works that require Approval will be treated as major works unless specifically advised otherwise by the Inspectorate.

Level crossings

5. Simple temporary level crossing - guidance should be sought from HMRI on whether the full or simplified Approval arrangements will be applied.

Plant and equipment

6. Will include rail-mounted maintenance machines including on-track plant and concrete mixers. Approval will only be required if the plant or equipment will operate outside of a possession or if a moveable jib could foul adjacent running lines.
APPENDIX 3A – DETAILED INFORMATION - ROLLING STOCK

1. Design Scrutiny & Technical Acceptance
   a) Details of all standards, regulations, design principles, production standards, etc, used in respect of the Project/Scheme should be provided either in this section or as appendices, with reference details provided, as appropriate.
   b) Any requests for derogations (temporary non-compliances) to standards, regulations, etc., should have full details provided along with details of any relevant operational limitations caused by the non-compliances, a copy of the authority to derogate should be included. A reference to the Certificate of Compliance should be provided.
   c) Evidence of the process followed to attain technical acceptance for the new or altered Rolling Stock should be provided. This may include copies of the following:
      • Network Rail Acceptance Board (NRAB) Certificates.
      • Vehicle Acceptance Bodies (VAB) Certificates of Conformance for Design, Construction, Maintenance and Engineering Acceptance.
      • Independent Safety Assessors (ISA) Reports.
      • Electromagnetic Compatibility (EMC) Reports.
   d) Evidence of compliance with:
      • Other standards (non RGS), Euronorms, ATOC Codes of Practice.
      • LUL standards (where applicable).
      • DfT Rail Vehicle Accessibility Regulations (RVAR).
      • Network Rail Yellow Book 3 – Principles for ALARP.
      • HMRI RSPG Pt2 Section F (this can be in the form of a compliance matrix or clause-by-clause commentary).
      • Inquiry Recommendations – particularly emergency access and egress arrangements. Refer to the booklet “Guidance on the provision of equipment and arrangements for evacuation and escape from trains in an emergency” (INDG 358).
   e) Details of:
      • Technical non compliances (TNC's).
      • Peer review by the Chief Engineers Directorate (LUL only).
      • Derogations.
      • Environmental (Diesel Engine Exhaust Emissions [DEEE], Noise).
      • Maintenance and operational training arrangements, provision of depot facilities and tooling documentation and spares.

2. Fire
   a) Some schemes may warrant Independent scrutiny of the attained fire loading, and where applicable, in addition to compliance with relevant Standards.
   b) Evidence expected would be compliance with the Railway Group Standard and/or a Technical Competent Authority (TCA) signed report underwriting the new or altered fire loading.
3. **Access & Egress**

Details on access and egress to vehicles may be included, particularly in respect to adverse conditions:

- Doors.
- Emergency Arrangements.
- Mobility Impaired – Rail Vehicle Accessibility Regulations (RVAR).
APPENDIX 3B – DETAILED INFORMATION - INFRASTRUCTURE

1. Design Scrutiny & Technical Acceptance

a) System Integrity

The specification for the project should consider system issues about how it is to be used (ensuring safety by design ALARP, future migration and maintenance provision). The type of evidence where consideration of these issues could be included would be a Statement of Compliance, an outline design submission or independent design checks.

b) Structural Integrity

i) Evidence for structural integrity design should resolve issues about accidental or abnormal loading, operating systems or new or novel design. The type of evidence to be provided may include:

- Outline design submission.
- General arrangement drawings.
- Confirmation of standards and codes.
- Confirmed non-compliances/special arrangements.
- Risk assessments.
- Failure mode analysis.
- Design review check.
- Operational limitations.

ii) Evidence of validation of assurance of design and confirmation that internal processes have been followed, should be available if requested.

c) Design Parameters:

i) Loading Gauge – these issues, such as: clearances and track dynamics/fixity should be considered in the project design. Evidence to be provided in resolving these issues may include:

- Outline design submission.
- General arrangement and drawings.
- Confirmation of codes/standards.
- Risk assessments.
- Confirmed non-compliances/special arrangements.
- Operational limitations.

ii) Geometric Alignment – these issues, such as horizontal curve and vertical curve, gradient, cant and cant deficiency, junctions and turnouts, should be considered in relation to the train characteristics in the project design. Evidence to be provided in resolving these issues may include:

- General arrangement drawings.
- Confirmation of codes/standards.
- Risk assessments.
- Confirmed non-compliances/special arrangements.
- Failure mode analysis.
• Operational limitations.

iii) Guidance System – these issues, such as track type, track gauge, track support, track fixity, derailment containment, switches and crossings, novel/new components, should be considered in relation to the train characteristics in the project design. Evidence to be provided in resolving these issues may include:

• General arrangement drawings.
• Confirmation of codes/standards.
• Risk assessments.
• Confirmed non-compliances/special arrangements.
• Failure mode analysis.
• Operational limitations.

2. Boundary Security

Issues such as fencing, errant (road) vehicle protection, bridge parapets, route crime, public and private rights of way, adjacent land use, maintenance/recovery access and level crossings should be considered in the project design. Evidence to be provided in resolving these issues may include:

• General arrangement drawings.
• Confirmation of codes/standards.
• Risk assessments.
• Highway/Local Authority consultation.
• Police Authority consultation.

3. Related System Equipment

Systems equipment issues such as ventilation/smoke control (e.g. for a tunnel) communications, lighting, fire mains, evacuation routes and emergency services access when testing and commissioning is carried out. Evidence to be provided in resolving these issues may include:

• Test certificates.
• Emergency Services acceptance.
• Operational limitations.

4. Other Considerations

a) Environmental Impact on Safety

Issues such as drainage and watercourses, noise and vibration, air quality and ventilation and aerodynamic effects should be considered in the project design. Evidence to be provided in resolving these issues should include:

• Environmental impact assessment.
• Confirmation of codes/standards.
• Environment Agency consultation.
• Operational limitations.
b) Special Climatic/Environmental Requirements

Issues such as flooding, high winds, snow and tidal movements should be considered in the project design. Evidence to be provided in resolving these issues should include:

- Consultation with Environment Agency.
- General arrangement drawings.
- Confirmation of standards and codes.
- Confirmed non-compliances/special arrangements.
- Risk assessments.
APPENDIX 3C – DETAILED INFORMATION - STATIONS

1. Detail Design & Validation
   a) Details of all standards, regulations, design principles, production standards, etc. used in respect of the Project/Scheme should be provided as appropriate.
   b) Evidence to be provided could include:
      • Drawings and technical descriptions to identify how the design accommodates the proposed usage of the station terminal tracks by relevant train operating companies. The drawings and descriptions should demonstrate continuity and protection within the structures surrounding terminal tracks to prevent progressive collapse following accidental loading from derailed trains; this includes areas over the buffer absorption area.
      • General arrangement drawings showing the layout of the station should be provided. These should include demonstration of the expected passenger routes, the positioning of stairs, steps, lifts, escalators and ramps.
      • Specific provisions for emergencies demonstrating consideration of accessibility/evacuation in relation to capacity and the positioning of stairs, ramps and steps.
      • Lifts and escalators being compliant with relevant standards.
      • Drawings showing layout of station illustrating expected passenger routes and their relative capacity with reasoning behind the assumptions made.
      • Passenger flow analysis reflecting heaviest periods of use, projected growth and impact of underground emergency station evacuation.
      • Consideration of the needs of the disabled should be taken into account in the design. Compliance with Disability Discrimination Act and Railway Safety, ‘Train and Station Services for Disabled Passengers’, and Statement of Compliance with guidance on ATG should be provided.
      • Evidence for LUL stations (where applicable) – The standard gate line formula should be applied. Assumptions regarding passenger flow should take into account passengers unable to use the station equipment (i.e. stairs).

2. Fire
   a) For the Specification, a Certificate of Compliance is to be provided that confirms compliance with legislation and standards. The documentation should include provision of fire ratings for building construction, equipment layout and cable entries plus insulation materials.
   b) Evidence should be provided that demonstrates that for sub-surface stations the Fire Precautions (Sub-Surface Railway Stations) Regulations 1989 are met and that appropriate consultation with the Local Fire Authority has been undertaken.
   d) Other Evidence includes:
      • Fire risk assessments and hazard management log should demonstrate how potential for fire has been minimised throughout the design process and adequate prevention and mitigation measures have been provided
      • Checklists of fire equipment, maintenance and inspection regimes.
      • Where appropriate, Local Fire Authority Certificates.
   a) The buildings and site plans should identify and resolve issues concerning anti-vandalism, and accessibility for maintenance and inspection.
   b) Where acts of trespass have the potential to increase owing to the work, evidence should be provided that these risks have been considered and acted against.

4. Electrical systems, lighting and ventilation
   • All electrical systems should be tested and certificated to ensure that they meet the appropriate regulations. These systems would include alarms, telecommunications, emergency, public address and passenger communications.
   • Emergency lighting should meet current approved best practice.
   • For ventilation evidence should be provided showing links with the fire control systems.

5. Signage
   Consideration should be given to ensure signage complies with current guidance, including Safety Signs Regulations 1980, DfT and ORR guidance regarding signage.
APPENDIX 3D – DETAILED INFORMATION - ENERGY

1. Detail Design
   a) Details of all standards, regulations, design principles, production standards, etc. used in respect of the Project/Scheme should be provided as appropriate.
   b) Evidence will need to be provided about the Technical Specification documentation including:
      - OLE layouts.
      - Bonding.
      - Feeding plans.
      - Bridge/tunnel/station arrangements.
      - Sectioning and Protection designs.
   c) Earthing and Bonding
      i) Evidence should be provided that adequate consultation has taken place with the relevant stakeholders and other disciplines, and that any agreed recommendations have been included within the outline design.
      ii) Evidence should be provided in the technical submission papers to demonstrate that the rise of earth potential in both normal and fault conditions has been properly considered and appropriate mitigation measures proposed where necessary.
      iii) The Certificate of Compliance should confirm what relevant standards are being used.

   a) The Site Plans should identify and resolve issues concerning anti-vandalism, cable routing and accessibility for maintenance and inspection.
   b) Where acts of trespass have the potential to increase owing to electrification work, evidence should be provided that these risks have been considered in the system design and dealt with.

3. Fire
   a) A Certificate of Compliance is to be provided, confirming compliance with legislation and standards. The documentation should include consideration for:
      - Switch gear.
      - Equipment layout.
      - Cable entries.
      - Insulation materials.
      - A description of any fire suppression systems.
   b) A list of any Section 12 stations involved should also be provided.

4. Telemetry Systems for Data Acquisition and Control of Remote Equipment
   Consideration should be given to built-in redundancy and duplicate lines of control/operation. Evidence should be provided to demonstrate the provision of such equipment.
APPENDIX 3E – DETAILED INFORMATION - SIGNALLING

1. Design Scrutiny & Technical Acceptance
   a) A signalling scheme plan should be enclosed with the submission.
   b) Details of all standards, regulations, design principles, production standards, etc. used in respect of the Project/Scheme should be provided either in this section or as appendices, with reference details provided, as appropriate. Any requests for derogations (temporary non-compliances) to standards, regulations, etc., should have full details provided along with details of any relevant operational limitations caused by the non-compliances. A reference to the Certificate of Compliance should be provided.
   c) Details should be included in the form of a Compliance Statement or reports following independent design checks.
   d) Evidence of structural integrity design issues, say for signal posts or gantries or of cable bridges should resolve issues about loading, or new or novel design. The type of evidence to be provided may include:
      - General arrangement drawings.
      - Confirmation of standards and codes.
      - Confirmed non-compliances/special arrangements.
      - Risk assessments.
      - Design review check.
      - Design limitations.
   e) Evidence of validation of assurance of design and confirmation that internal processes have been conducted should be available if requested.
   f) Structure gauge issues such as signal positions should be considered in the project design. Evidence to be provided in resolving these issues may include:
      - Signal sighting forms.
      - General arrangement drawings.
      - Confirmation of codes/standards.
      - Risk assessments.
      - Confirmed non-compliances/special arrangements.
   g) Evidence of the process followed to attain technical acceptance for any new or altered systems should be provided. This may include details of the following:
      - Reports from review panels (e.g. Systems Interface Committee).
      - Independent Safety Assessment (ISA) reports.
      - EMC Reports.
      - HAZOP studies and any mitigations proposed.
   h) Evidence of compliance with:
      - Other standards (i.e. other than Railway Group Standards), Euronorms.
      - Network Rail Yellow Book 4 – Principles for ALARP.
      - HMRI RSPG P12 Section D (This can be in the form of a compliance matrix or clause-by-clause commentary).
i) Details of:
  - Technical non compliances (TNCs).
  - Derogations.
  - Maintenance and operational training arrangements, documentation and spares.

2. Signal Control Arrangements
   a) A description should be given of the type of signal box control to be provided under the proposed arrangements. For example, details of any signal boxes or control centres to be closed under the Project/Scheme, along with details of the arrangements for the transfer of control to any other controlling signal box or control centre.
   b) Details should be included of the type of control system (e.g. lever frame, NX panel, IECC) and type of display system (e.g. signal box diagram, panel, VDU) affected. Details should be provided of any known future proposals that may affect the main signal box or control centre in question. Details of the type(s) of interlocking in use (e.g. relay, mechanical, solid state) should be included. If the control centre is an Integrated Electronic Control Centre or equivalent, details of the workstations affected by the proposals, and to what extent, should be provided.
   c) Details of the fringe signal boxes or control centres adjacent to the main signal box or control centre should be provided. If there are any alterations in those fringe signal boxes or control centres, details of items affected should be provided. Details of any ground frames, local panels, maintenance panels, etc. should be provided.

3. Interlocking Arrangements
   a) Copies of any affected signalling control tables should be enclosed with the submission. If there are any unusual or special controls currently applied or being proposed under the new arrangements, a summary of the details should be provided. If there are any special controls such as emergency replacement facilities, etc., details should also be provided.
   b) Details should be provided of any automatic route setting that may apply, either currently or proposed. This includes details of any override systems, etc.
   c) Details should be shown of any existing or proposed train operated route releases.

4. Method of Signalling
   a) A general description should be provided of the mode of signalling in the area (e.g. semaphore, multi-aspect, mixed, etc.), together with details of any changes being proposed under the Project/Scheme. If applicable, reference should be made to the signalling scheme plan in order to explain any particular items of importance. General details should be provided of any of the following in the area of the Project/Scheme:
      - Track circuit arrangements.
      - Block controls.
      - Axle counters.
      - Train protection.
      - Special arrangements.
      - Sand drags.
• Derailers.
• Train describers.

b) Details should be provided of any single line working, bi-directional signalling, etc. This includes station permissive working, arrangements for single lines, arrangements for bi-directional working due to maintenance work, etc. Details of any proposals for operations during perturbations should also be provided.

5. Signage
Consideration should be given to ensure signage (e.g. temporary speed restrictions, level crossing signs, etc.) is not in conflict with signal information provided to a driver.

6. Other Considerations
a) Details of any unusual arrangements or other items that require special scrutiny should be provided. This may include the follow items:
• Swing bridges.
• Tunnels.
• Unusual operating conditions.
• Single lines.
• Airfield trip wires.
• Ground frames.
• Local panels.
• Shunting yards.
• Any special arrangements.

b) A general description of the telecommunication arrangements should be provided, including details of communication with fringe signal boxes or control centres, communications with private sidings or ground frames, any radio system, signal post telephones arrangements, etc.

c) Details and type of any electrification should be provided, including the location and details of any sub-stations, booster stations, dead sections, etc.

d) Details of any interfaces with other modes of transport (e.g. tramways, level crossings, etc) should be provided.

e) Details should be provided of any staff warning systems, staff walkways, public crossings, etc.

f) Details of overrun risk assessments and proposed control measures should be provided.

g) The effect on train operations should be provided, both during proposed normal arrangements and when degraded due to failure or maintenance.

h) Details should be provided of any level crossings in the area affected by the Project/Scheme. The types (e.g. AOCL, AOCR, AHB, CCTV, etc) should be explained. Any special arrangements should be discussed. Details of train approaching or strike-in information should be provided and should also be shown on the signalling scheme plan.

7. Commissioning Details
Any special requirements for stageworks or for revised commissioning arrangements should be detailed.
APPENDIX 3F – DETAILED INFORMATION - TRAMWAYS AND LIGHT RAPID TRANSIT SYSTEMS

Tramways and Light Rapid Transit Systems incorporate elements of all other disciplines and evidence will be required in line with Appendices 3A to 3E to the extent that they apply to these systems.

The following points relate specifically to those elements of Tramways and Light Rapid Transit Systems that require particular consideration when compared with other transport modes.

1. **Design Scrutiny & Technical Acceptance**

   A statement of compliance with relevant standards and guidance (HMRI RSPG). Non-compliances to standards should be detailed and supporting mitigation set out.

2. **Infrastructure**

   The following is a guide to the evidence required in a typical submission:

   a) Evidence of how highway safety considerations have been taken on board as part of alignment design.

   b) Drawings of full alignment showing all gradients, curves, crossovers, stops, tunnels, bridges, viaducts and overhead line support pole locations. Drawings should also include highway signage and surface markings and indicate the maximum dynamic kinematic envelope of the trams to be used on the system. The details should include all limiting lateral clearances, particularly elements of street furniture.

   c) Information regarding all points-switches in tramway and segregated sections, giving type, location and method of control/operation.

   d) Details of the methods of tram arrest for terminal tracks in public areas.

   e) A statement regarding the earthing and bonding strategy of the system, with particular reference to the achievement of the rail accessible voltage limits set out in European standards.

   f) The submission should cover the details of the proposed form of electrification, including details of isolation and sectioning arrangements. Information regarding proposals for stray current control in all areas of the system. Details of all minimum overhead line clearances in highways and other areas to which the public have access.

   g) Schedules of all ‘at grade’ crossings of segregated tramways for both highways and footways, and schedules of all over and under line bridges with details of parapet heights and types of bridges passing over the tramway.

   h) Information will be required regarding the form of track bed in highway areas with particular attention to the interface between the highway and railhead and how the coefficient of friction is maintained at the optimum level across the carriageway. Proposed maintenance methods for the track in the highway should also be included.

   i) Demonstration that the Highway Authority has been involved with the detailed alignment design and is content with the proposals.

   j) Include details of any proposals for shared use of traction support columns for street lighting or similar purposes with information on proposed maintenance arrangements.

   k) Include proposals for the drainage of non-ballasted track areas.
3. **Operations**

The submission should include the following information on the operation of the system:

a) The proposed method of control, e.g. ‘line of sight’, particularly where there is any intention to use bi-directional operation over single-track sections.

b) Details of the tramway control signals, and particularly any on the highway not in conformance with the Traffic Signs Regulations and General Directions.

c) Control systems, including statements of the level of safety provided for systems of remote control of electrical and other systems.

d) Any aspects of the system not under the direct control of the tramway Operator and a description of the interface arrangements in such cases.

e) For tramways with proposed shared operation with metro or heavy rail services information on methods for ensuring safe separation of services and information on operational controls in both normal, abnormal and emergency operating conditions.

f) Where a tramway shares a level crossing with a metro or heavy rail service information on the method of control of the crossing.

4. **Vehicles**

The information required with respect to vehicles includes the following:

a) Conformance with European standards, particularly those for fire and electromagnetic compatibility.

b) Vehicle braking systems and performance, including braking rates for different operational modes and jerk rate limits.

c) Measures taken to guard against pedestrian under-run.

d) Door type(s) and methods of emergency egress. Details of facilities for the emergency services to enter vehicles, remove electrical power from vehicles and information on how vehicles are intended to be jacked up by the emergency services in highway locations.

e) Methods for discouraging passengers from attempting to travel on the exterior of vehicles.

f) Where tramcars are intended to operate in multiple, details of coupling arrangements and control considerations.

g) Where tramcars being supplied are already in use elsewhere in the EU, details of all systems where they are in use and any proposed variations (other than cosmetic) between units in service and those to be supplied.

h) Details of any rail only or road-rail vehicles to be used on the system.

i) A wheel rail interface study is to be provided to demonstrate compatibility of the wheel and railhead profiles and the safety of the wheelset transitions through switch and crossing work.

j) A description of the vehicle electrical traction system and a statement on related electromagnetic compatibility and interference.

5. **Heritage Systems**

Details should be included of:

a) Any proposals for open top vehicles and the clearances from the floor of the upper deck to accessible live parts of any electrical equipment.
b) Any method of traction other than electrical traction to current UK or EU standards.
APPENDIX 4 – CERTIFICATE OF COMPLIANCE

A Certificate of Compliance must be completed and attached to every submission for the approval of works, plant and equipment. It should contain:

1. The following title:
   ‘Certificate of Compliance with Relevant Standards’

2. The location of the works/plant/equipment.

3. A brief description of the proposal.

4. The proposed category of the works selected from the following list:
   (a) Works, plant or equipment requiring approval by full procedure;
   (b) Works, plant or equipment that may be approved using simplified procedure; and
   (c) Plant/equipment requiring type approval.
   (Figure 1 in the guide will help you to decide which category is appropriate).

5. Details of the supporting documentation including the numbers of all plans or drawings.

6. A list of the principal standards used in the design construction/installation and use of the works, plant or equipment.

7. A complete list of all significant deviations, if any, from relevant standards for which exemption is sought. Where there are no such deviations the certificate must state this clearly.

8. A declaration in the following form:
   ‘I confirm that these proposals have been designed and will be constructed/installed* in accordance with relevant standards listed at 6 above apart from the exceptions set out at 7 above. I hold certificates/letters to this effect from the designers of the works, plant or equipment.’

* Only appropriate category need be given

This declaration should be signed by the person with ultimate responsibility to the directors of the company for the safe operation of the railway/relevant transport system and to whom all letters granting approval, dispensations etc should be addressed. The position of the person signing the letter should be stated on the certificate.
APPENDIX 5 – CERTIFICATE OF COMPLETION

A Certificate of Completion should be submitted for each scheme. It should contain:

1. A title including the following:
   ‘Certificate of Completion of railway works, plant or equipment requiring Approval’

2. A description of the works, plant or equipment for which approval is being sought.

3. Details of whether or not the Inspectorate has advised that an inspection is required giving the date and reference of the relevant letter.

4. Full details of any variations in the works, plant or equipment compared to the scheme that was submitted for approval as modified by any subsequent dispensations or letters of ‘no objection’.

5. A list of any departures from the principal standards used in the design construction/installation and use of the works, plant or equipment or other standards for which dispensations are being sought.

6. A list of all documents relating to any deviations from the original proposals, or requests for dispensation, or that are required for any inspection.

7. A declaration in the following form:
   ‘I confirm that these proposals have been designed and constructed/installed* in accordance with relevant standards, apart from the exceptions set out in 5 and 6 above. I hold certificates/letters to this effect.’
   * delete where appropriate

The certificate should be signed by the person with ultimate responsibility to the directors of the company for the safe operation of the railway/relevant transport system and to whom all letters granting approval, dispensations etc should be addressed. The position of the person signing the letter should be stated on the certificate.
APPENDIX 6 – EXTRACTS FROM THE TRANSPORT AND WORKS ACT
1992

Transport and Works Act 1992 (c.42)

Sections 41, 66 and 67 of the Transport and Works Act 1992 are set out below. Section 41 grants powers to the HSE regarding the Approval of works, plant and equipment. The service of notices and interpretation sections (sections 66 and 67 respectively) are also set out below.

Approval of works, plant and equipment

41 - (1) For the purpose of securing the safe operation of railways, tramways, trolley vehicle systems and prescribed systems of guided transport, the Secretary of State may make regulations requiring that his Approval be obtained before –

(a) new works, plant or equipment are first brought into use, or

(b) works, plant or equipment are first brought into use after alterations have been made to them.

(2) Regulations under this section -

(a) shall prescribe the cases in which Approval is required and the procedure for obtaining it;

(b) may include provision as to the time when works, plant or equipment are to be treated as first brought into use, including provision for disregarding periods of testing and other periods of use before sufficient information is available for a decision to be made on an application for Approval;

(c) may include provision prohibiting the giving of false information to the HSE.

(3) Regulations under this section may make different provision for different cases, and may include provision authorising the HSE -

(a) to dispense (conditionally or unconditionally) with compliance with regulations that would otherwise apply, or

(b) to require compliance with regulations that would not otherwise apply,

either in the case of any particular works, plant, equipment or alterations, or in the case of works, plant, equipment or alterations of such descriptions as he may determine.

(4) Regulations under this section may provide that any person who without reasonable cause contravenes any specified provision of the regulations, or does so on specified circumstances, shall be guilty of an offence under this section.

(5) Where the commission by any other person of an offence under this section is due to the act or default of some other person, that other person shall be guilty of the offence, and a person may be charged with and convicted of the offence by virtue of this subsection whether or not proceedings are taken against the first-mentioned person.

(6) A person guilty of an offence under this section shall be liable on summary conviction to a fine not exceeding level 5 on the standard scale.

(7) In this section:

“equipment” includes vehicles;

“prescribed systems of guided transport” means systems using a mode of guided transport prescribed by regulations under this section.

(8) The power to make regulations under this section shall be exercisable by statutory instrument, which shall be subject to annulment in pursuance of a resolution of either House of Parliament.
Service of notices

66 (1) A notice or other document required or authorised to be served for the purposes of this Act may be served by post.

(2) Where the person on whom a notice or other document to be served for the purposes of this Act is a body corporate, the notice or document is duly served if it is served on the secretary or clerk of that body.

(3) For the purposes of section 7 of the Interpretation Act 1978 as it applies for the purposes of this section, the proper address of any person in relation to the service on him of a notice or document under subsection (1) above is, if he has given an address for service, that address, and otherwise -

(a) 1978 c.30.

(a) in the case of the secretary or clerk of a body corporate, the registered or principal office of that body;

(b) in any other case, his last known address at the time of service.

(4) Where for the purposes of this Act a notice or other document is required or authorised to be served on a person as having any interest in, or as the occupier of, land and his name or address cannot be ascertained after reasonable inquiry, the notice may be served by -

(a) addressing it to him by name or by the description of “owner”, or as the case may be “occupier”, of the land (describing it), and

(b) either leaving it in the hands of a person who is or appears to be resident or employed on the land or leaving it conspicuously affixed to some building or object on the land.

(5) This section shall not be taken to exclude the employment of any method of service not expressly provided for by it.

(6) This section shall not apply to anything required or authorised to be served under Section 35.

Interpretation

67 (1) In this Act, except where the context otherwise requires-

“carriageway” has the same meaning as in the Highways Act 1980(a), or in Scotland the Roads (Scotland) Act 1984(b)

“guided transport” means transport by vehicles guided by means external to the vehicles (whether or not the vehicles are also capable of being operated in some other way);

“inland waterway” includes both natural and artificial waterways, and waterways within parts of the sea that are in Great Britain, but not any waterway managed or maintained by a person who is a harbour authority (within the meaning of the Harbours Act 1964(c)) in relation to the waterway;

“Operator”, in relation to a transport system, means any person carrying on an undertaking which includes the system or any part of it or the provision of transport services on the system;

“railway” means a system of transport employing parallel rails which-

(a) provide support and guidance for vehicles carried on flanged wheels, and

(b) form a track which either is of a gauge of at least 350 millimetres or crosses a carriageway (whether or not on the same level), but does not include a tramway;

“street” means-
(a) in England and Wales, a street within the meaning of section 48 of the New Roads and Street Works Act 1991(d), together with land on the verge of a street or between two carriageways;

(b) in Scotland, a road within the meaning of section 107 of the New Roads and Street Works Act 1991, together with land on the verge of a road or between two carriageways;

“tramway” means a system of transport used wholly or mainly for the carriage of passengers and employing parallel rails which-

(a) provide support and guidance for vehicles carried on flanged wheels, and

(b) are laid wholly or mainly along a street or in any other place to which the public has access (including a place to which the public has access only on making a payment);

“trolley vehicle system” means a system of transport by vehicles constructed or adapted for use on roads without rails under electric power transmitted to them by overhead wires (whether or not there is in addition a source of power on board the vehicles);

“vehicle” includes mobile traction unit.

(2) References in this Act to rights over land include references to rights to do, or to place and maintain, anything in, on under land or in the air-space above its surface.

(a) 1980 c.66.
(b) 1984 c.54
(c) 1964 c.40
(d) 1991 c.22
APPENDIX 7 – RAILWAYS AND OTHER TRANSPORT SYSTEMS
(APPROVAL OF WORKS, PLANT AND EQUIPMENT) REGULATIONS 1994


1. Citation and commencement

These Regulations may be cited as the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 and shall come into force on 5th April 1994.

2. Interpretation

In these Regulations, unless the context otherwise requires-

(a) “the Act” means the Transport and Works Act 1992;

“altered works, plant or equipment” means any works, plant or equipment to which alterations have been made or, where the context so requires, to which it is proposed or intended to make alterations;

“approval” means an approval which is required by regulation 4 to be obtained;

“manufacturer”, in relation to any plant or equipment, includes any person who constructs the plant or equipment by any method or who assembles the component parts thereof or, in the case of any plant or equipment which has been imported, the importer of the plant or equipment;

“Member State” means a state which is a member of the Communities;

“Operator” means any person carrying on, or proposing or intending to carry on, the undertaking of a relevant transport system and who proposes or intends to bring into use or, if the context so requires, who uses any works, plant or equipment or altered works, plant or equipment for the purposes of the operation of that system;

“prescribed system of guided transport” means a system using a mode of guided transport prescribed under regulation 3;

“relevant operational limitation” means a limitation on-

(i) the maximum speed at which a vehicle may be permitted to travel,

(ii) the maximum weight which may be transmitted to the rails (or other structures which support a vehicle in use on a relevant transport system) by any one pair of wheels, or by such other parts of a vehicle as may be specified in the limitation,

(iii) the maximum number of passengers who may be permitted to travel in a vehicle,

(iv) the maximum weight of burden which may be loaded in or on to a vehicle,

(v) any period of time, however expressed, during which the works, plant or equipment concerned may be used,

(vi) the maximum voltage at which any electrical plant or equipment may be operated,

(vii) the use in tunnels or under overhead electric traction power wires of any type of vehicle specified in the limitation,

(viii) the routes on which a vehicle specified in the limitation may be used having regard to its loading gauge, to any of its dimensions or to any of its other characteristics, or
any other restriction intended to impose a limitation on the use of any works, plant or equipment, or any altered works, plant or equipment for the purpose of securing the safe operation of the transport system of which they form part; and

“relevant transport system” means a railway, a tramway, a trolley vehicle system or a prescribed system of guided transport;

(b) any reference to a numbered regulation or Schedule is a reference to the regulation or Schedule bearing that number in these Regulations; and

(c) any reference to a numbered paragraph is a reference to the paragraph bearing that number in the regulation or Schedule in which the reference occurs.

3. Prescribed modes of guided transport

The modes of guided transport described in Schedule 1 are hereby prescribed for the purposes of section 41 of the Act.

4. Requirement for Approval

(1) Subject to the following provisions of these Regulations, the Approval of HSE shall be obtained before-

(a) any new works, plant or equipment; or

(b) any altered works, plant or equipment,

which are capable of materially affecting the safe operation of a relevant transport system, are first brought into use for the purposes of that system.

(2) Approval shall not be required in relation to any vehicle to the extent that the vehicle is required to comply-

(a) with the provisions of section 24 of the Channel Tunnel Act 1987 (Approval of trains); or

(b) when it is not operating in one of the modes prescribed by regulation 3 or because it is a vehicle operating on a trolley vehicle system, with the provisions of the Road Traffic Act 1988 with respect to the design, construction, equipment and use of vehicles and vehicle parts.

(2A) Approval shall not be required in relation to any interoperability constituent or any subsystem to the extent that the interoperability constituent or subsystem, as the case may be, is subject to the requirements of regulations 11 to 17 of the Railways (Interoperability) (High-Speed) Regulations 2002.

(2B) Approval shall not be required in relation to any safety component, subsystem or cableway installation to the extent that the safety component, subsystem or cableway installation, as the case may be, is subject to the requirements of regulations 4 to 12 of the Cableway Installations Regulations 2004.

(3) Subject to paragraph (4), new works, plant and equipment or altered works, plant and equipment shall be treated as first brought into use at the time when they are first used for the purposes of a transport service.

(4) In ascertaining the time when any new works, plant or equipment or altered works, plant or equipment are first brought into use, subject to any requirement of HSE under regulation 11(1), no regard shall be had to any period during which such new works, plant or equipment or such altered works, plant or equipment are-

(a) necessarily used in order to avoid interruption to the operation of existing transport services before sufficient information is available for a decision to be made on an application for approval; or
(b) with the prior written consent of the HSE used for the purposes of-
   (i) any testing or trials, provided that the testing or trials are conducted in
       accordance with the terms of such consent; or
   (ii) obtaining information to prove their satisfactory performance in connection
       with an application for approval.

(5) In paragraph 2A, “interoperability constituent” and “subsystem” shall have the same
measings as they have in the Railways (Interoperability) (High-Speed) Regulations 2002.

(6) In paragraph 2B, “safety component”, “subsystem” and “cableway installation” shall
have the same meaning as they have in the Cableway Installations Regulations 2004.

5. Procedure for obtaining Approval

(1) Subject to the following provisions of these Regulations, application for Approval shall
be made in writing to the HSE by the Operator and shall be accompanied by such of the
documents listed in Schedule 2 as are appropriate to the new works, plant or equipment or
altered works, plant or equipment which are the subject of the application.

(2) The application shall state whether any, and if so what, relevant operational limitations
are intended to be imposed on the use of the new works, plant or equipment or altered works,
plant, or equipment which are the subject of the application.

(3) The applicant shall-
   (a) provide to the HSE such further information as he may require to enable him to
       make a decision on the application for approval; and
   (b) afford to the HSE such facilities as he may require for inspecting, testing and
       proving the works, plant or equipment or altered works, plant or equipment which
       are the subject of the application.

(4) Without prejudice to the generality of paragraph (3)(a), the applicant shall provide to the
HSE such evidence as he may require to satisfy himself that the works, plant or equipment or
the alterations which are the subject of the application comply with any technical requirements
imposed by any relevant provision contained in an enactment authorising the construction or
operation of the relevant transport system concerned.

6. Type Approval of plant and equipment

(1) Application may be made to the HSE by or on behalf of a manufacturer of plant or
equipment which is intended for use on a relevant transport system for approval of a
prototype of such plant or equipment.

(2) An application under paragraph (1) shall be made in writing and shall be accompanied
by such of the documents listed in Schedule 2 as are appropriate to the plant or equipment
which is the subject of the application.

(3) Paragraphs (2) and (3) of regulation 5 shall so far as appropriate apply to an
application for approval made under paragraph (1).

(4) Approval under this regulation of a prototype of any plant or equipment may be refused
by the HSE unless he is satisfied that at the date of application for such approval there is an
Operator who proposes to bring into use plant or equipment conforming with that prototype.

7. Use of type approved plant or equipment

(1) Where the Operator proposes to bring into use, otherwise than by incorporation into
works or alterations, any plant or equipment which conforms with a prototype in respect of
which a manufacturer has obtained Approval under regulation 6, the Operator may apply to
the HSE for approval in accordance with paragraph (2).

(2) Application for approval under this paragraph shall be made in writing and if it is
accompanied by a certificate given by the manufacturer in accordance with this regulation that
the plant or equipment which is the subject of the application conforms with the approved
prototype, the HSE may dispense with the requirements of paragraphs (1) and (3) of regulation 5.

(3) Where-

(a) the Operator incorporates into any works or alterations plant or equipment which conforms with a prototype in respect of which a manufacturer has obtained Approval under regulation 6; and

(b) in relation to an application under paragraph (1) of regulation 5 for approval of those works the Operator produces to the HSE a certificate given by the manufacturer in accordance with this regulation that the plant or equipment conforms with the approved prototype,

the HSE may dispense with the requirements of paragraphs (2) and (3) of regulation 5 to the extent that they relate to that plant or equipment.

(4) In this regulation “conform” means conform in all the respects which materially affect the safe operation of a relevant transport system.

(5) A certificate given for the purposes of paragraph (2) or (3) shall-

(a) be in the form set out in Schedule 3 (or in a form substantially to the like effect), duly completed;

(b) set out the relevant operational limitations (if any) on the use for which the prototype was approved; and

(c) be signed on behalf of the manufacturer by a director, manager, secretary or other similar officer of the manufacturer.

8. Compliance with external standards, etc

(1) The HSE shall not refuse to grant approval under regulation 5 for any works, plant or equipment or under regulation 6 for any prototype of plant or equipment on the ground that the works, plant or equipment or prototype does not comply with a specified standard if the works, plant or equipment or the prototype complies with-

(a) a relevant standard or code of practice of a national standards body or equivalent body of any member State;

(b) any relevant international standard recognised for use in any member State;

(c) any relevant technical specification acknowledged for use as a standard by a public authority of any member State;

(d) traditional procedures of manufacture of a member State where these are the subject of a written technical description sufficiently detailed to permit assessment of the articles or materials for the use specified; or

(e) a specification sufficiently detailed to permit assessment for articles or materials of an innovative nature (or subject to innovative processes of manufacture such that they cannot comply with a recognised standard or specification) and which fulfill the purpose provided by the specified standard:

provided that the proposed standard, code of practice, technical specification or procedure of manufacture provides, in use, equivalent levels of safety, suitability and fitness for purpose.

(2) In considering whether to grant approval under regulation 5 for any works, plant or equipment or under regulation 6 for any prototype of plant or equipment, the HSE shall take into consideration the results of any checks or tests carried out by a laboratory or similar body in another member State, including those checks and tests which conform with EN 45000, where such results provide a level of accuracy, fitness and suitability for purpose equivalent to the results of checks and tests carried out in the United Kingdom and where such laboratory or other body offers suitable and satisfactory guarantees of technical and professional competence and independence.
9. Relevant operational limitations

An application for approval which-

(a) states any relevant operational limitation which is intended to be imposed on the use of the new works, plant or equipment or the altered works, plant or equipment which are the subject of the application; or

(b) is accompanied by a certificate under regulation 7 that the plant or equipment or, as the case may be, any plant or equipment incorporated into the works or alterations, which are the subject of the application, conforms with a prototype which has been approved to be used subject to any relevant operational limitation,

shall be construed as an application for approval for the new works, plant or equipment or the altered works, plant or equipment to be brought into use subject to that relevant operational limitation.

10. Dispensations

(1) The HSE may-

(a) by notice in writing to the Operator in the case of any particular new works, plant or equipment or altered works, plant or equipment; or

(b) by general notice in the case of works, plant or equipment or altered works, plant or equipment of such descriptions as he may by such notice determine,

dispense with compliance with such of the requirements of these Regulations as may be specified in the notice subject to such conditions, if any, as may be so specified.

(2) A general notice for the purposes of paragraph (1)(b) shall-

(a) contain a statement of the time when it is to come into effect; and

(b) be published by the HSE in such manner as he think fit.

11. Compliance with provisions not otherwise applicable

(1) The HSE may-

(a) by notice in writing to the Operator in the case of any particular new works, plant or equipment or altered works, plant or equipment;

(b) by general notice in the case of works, plant or equipment or altered works of such descriptions as they may by such notice determine,

require compliance with such provisions of these Regulations that would not otherwise apply as are specified in the notice.

(2) A general notice for the purposes of paragraph (1)(b) shall-

(a) contain a statement of the time when it is to come into effect; and

(b) be published by the HSE in such manner as he thinks fit.

12. Information

No person shall, in connection with any application for approval, give to the HSE information which is false in any material particular.

13. Offences

(1) In this regulation “an offence” means an offence under section 41 of the Act.

(2) An Operator who without reasonable cause-

(a) brings into use any new works, plant or equipment or any altered works, plant or equipment without approval; or
(b) uses any new works, plant or equipment or any altered works, plant or equipment in contravention of a relevant operational limitation which applies to them; or

(c) contravenes the provisions of regulation 12,

shall be guilty of an offence.

(3) Any manufacturer who, in giving a certificate for the purposes of paragraph (2) or (3) of regulation 7, without reasonable cause contravenes the provisions of regulation 12 shall be guilty of an offence.
SCHEDULE 1: PRESCRIBED MODES OF GUIDED TRANSPORT

Regulation 3

PART I – The Modes

1. Magnetic levitation
2. Monorail
3. Road-based with cable guidance
4. Road-based with rail guidance
5. Road-based with side guidance
6. Track-based with side guidance

PART II – Interpretation

1. In this Schedule -
   “magnetic levitation” means a mode in which the vehicles are supported and guided by means of magnetic force;
   “monorail” means a mode in which the vehicles are supported and guided wholly or mainly by means of a single rail or beam;
   “road-based with cable guidance” means a mode in which the vehicles are -
      a) capable of operating on a road; and
      b) guided wholly or mainly by means of a cable, wire or other device which is not in direct physical contact with the vehicles;
   “road-based with rail guidance” means a mode in which the vehicles are -
      a) capable of operating on a road; and
      b) guided wholly or mainly by means of a single rail or slot;
   “road-based with side guidance” means a mode in which the vehicles are -
      a) capable of operating on a road; and
      b) guided wholly or mainly by means of wheels bearing outwards against fixed apparatus; and
   “track-based with side guidance” means a mode in which the vehicles are -
      a) supported by means of a track or other structure not being a road; and
      b) guided wholly or mainly by means of wheels bearing outwards against fixed apparatus.

2. In this Schedule, references to “mode” are to be construed as a mode of guided transport which employs vehicles used wholly or mainly for the carriage of passengers and “road” has the same meaning as in the Road Traffic Regulation Act 1984^{(a)}

\(^{(a)}\) 1984 c.27.
SCHEDULE 2: DOCUMENTS TO ACCOMPANY AN APPLICATION FOR APPROVAL

PART I – Works
Applications for approval of works shall be accompanied by -

a) a written description of the proposed works;
b) an outline of the specifications to which the proposed works are to be constructed;
c) a statement of the level of safety provided by the proposal;
d) a location plan;
e) site plans;
f) sections and elevations;
g) general arrangement drawings of any structures or buildings.

PART II – Fixed plant and equipment
A. All applications for approval of fixed plant and(or) equipment shall be accompanied by:

a) a written description of the proposed plant and(or) equipment;
b) an outline of the specifications to which the proposed plant and(or) equipment is to be constructed;
c) a statement of the level of safety provided by the proposal;
d) a location plan;
e) layout plans;
f) general arrangement drawings.

B. Applications for approval of signalling plant and(or) equipment shall additionally be accompanied by:

a) layout plans which shall include –
   (i) positions of signals and vehicle detection equipment;
   (ii) locations of stations, tunnels, level crossings, signal boxes and equipment rooms;
   (iii) details of line speeds and gradients;
b) interlocking control tables;
c) details of any non-standard features;
d) a statement of validation of the software incorporated into any computer system;
e) any undertaking in respect of single line control;
f) where a relevant transport system is installed along a street, details of traffic signs, light signals and road markings.

C. Applications for approval of all plant and(or) equipment employing electric traction shall additionally be accompanied by:

a) a line diagram showing the lines, the location of stations, bridges and level crossings, and the position of signals;
b) diagrams showing the traction supply arrangements including the location of outside supply points, bare feeders, the arrangement of substations, remote and local control and isolating switches, and neutral sections or conductor rail gaps;
c) a schedule of locations of proposed warning notices;
d) details of fencing where access is to be limited to any structure housing equipment for the supply and(or) control of electrical power.

D. Applications for approval of schemes employing an overhead line system shall additionally be accompanied by documents setting out details of the following:
   a) overbridges indicating the height and protection of bridge parapets;
   b) reduced electrical clearances, with reasons for them;
   c) wire heights along any street and at all level crossings;
   d) protective guards and screens.

E. Applications for approval of schemes employing a conductor-rail system shall additionally be accompanied by:
   a) plans showing fencing and proposed fencing improvement;
   b) plans showing the position of the conductor rail or rails, conductor rail boarding and cattle-cum-trespass guards where applicable, and the location of signal-post telephones which are adjacent to a conductor rail and the protection proposed.

PART III - Moveable plant and equipment

Applications for the approval of moveable plant and(or) equipment shall be accompanied by:
   a) a written description of the proposed plant and(or) equipment;
   b) an outline of the specifications to which the proposed plant and(or) equipment is to be constructed;
   c) a statement of the level of safety provided by the proposal;
   d) written details of the proposed use and method of operation;
   e) general arrangement drawings including interior layouts as appropriate;
   f) written details of the loading limits and forces imposed upon the supporting structure;
   g) written details of the measures incorporated in the plant and(or) equipment to minimise risk of damage and injury in an accident.

PART IV - Altered works, plant and equipment

All applications for Approval of alterations to works, plant or equipment shall be accompanied by:
   a) a written description of the works, plant and (or) equipment which are the subject of the proposed alteration in their unaltered state;
   b) particulars of all previous Approvals of the works, plant and(or) equipment which are the subject of alteration;
   c) in the case of works and fixed plant or equipment, a location plan;
   d) a written description of the proposed alterations;
   e) an outline of the specification to which the proposed alterations are to be constructed;
f) a statement of the level of safety provided by the works, plant and(or) equipment as proposed to be altered;

g) such of the documents specified in Parts I to III of this Schedule as are appropriate to an application for Approval of the works, plant and (or) equipment as proposed to be altered.
CERTIFICATE OF CONFORMITY FOR PLANT OR EQUIPMENT

For the purposes of regulation 7 of the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994,

We......................................................................................................................................................
of (address)...........................................................................................................................................

hereby certify that:

(1) the [plant][equipment] specified in the First Schedule to this certificate conforms with the prototype thereof which was approved by the Health and Safety Executive under:

regulation 6 of the said Regulations on.........................................................

and described in type approval certificate no. .............................................

(2) the relevant operational limitations on the use for which the said prototype was approved are those set out in the Second Schedule to this certificate.

(Address) .................................................................................................................................

(Signature) .............................................................................................................................

(Capacity of signatory).........................................................................................................

For and on behalf of the above-named

(Date) .................................................................................................................................

FIRST SCHEDULE

(Description and identification no. of [plant][equipment] which is the subject of the certificate)

SECOND SCHEDULE

(Relevant operational limitations on the use for which the prototype was approved)
APPENDIX 8 – OTHER RELEVANT LEGISLATION

The following legislation may be relevant to organisations preparing to submit details of works, plant and equipment to the Inspectorate for consideration:

1. **Health and Safety at Work etc Act 1974**
   Principal regulations made under this Act with important implications to the railway industry include:
   - the Management of Health and Safety at Work Regulations 1999;\(^\text{22}\)
   - the Railway Safety Regulations 1999;\(^\text{21}\)
   - the Railways (Safety Case) Regulations 2000\(^\text{16}\), amended by Railways (Safety Case) Regulations 2003 (SI 20003/739);\(^\text{16}\)
   - the Construction (Design and Management) Regulations 1994\(^\text{19}\), amended by the Construction (Design and Management) (Amendment) Regulations 2000;
   - the Railways (Safety Critical Work) Regulations 1994;\(^\text{24}\)
   - the Carriage of Dangerous Goods by Rail Regulations 1994;\(^\text{25}\) and
   - the Railway Safety (Miscellaneous Provisions) Regulations 1997.\(^\text{1}\)

2. **Factories Act 1961**\(^\text{26}\)

3. **Fire Precautions Act 1971**\(^\text{27}\)
   - the Fire Certificates (Special Premises) Regulations 1976;\(^\text{28}\)
   - the Fire Precautions (Factories, Offices, Shops and Railway Premises) Regulations 1989\(^\text{30}\) and
   - Fire Precautions (Sub-surface Railway Stations) Regulations 1989.\(^\text{21}\)

4. **Building Act 1984**\(^\text{30}\) and **Building (Scotland) Act 2003**
   The Building Regulations 2000\(^\text{31}\)

5. **Town and Country Planning Act 1990**\(^\text{32}\)

6. **Office, Shops and Railway Premises Act 1963**\(^\text{33}\)

7. **Level Crossings Act 1983**\(^\text{34}\)

8. **Railway Regulation Acts 1840 and 1842**\(^\text{35}\)

9. **Railways (Interoperability) (High Speed) Regulations 2002**\(^\text{4}\)

There are large numbers of Acts and Orders covering the construction of existing railways. There may be relevant information in any such Act.

The HSE have published guidance to assist railway managers in the application of railway safety.
APPENDIX 9 – REFERENCES


27. Fire Precautions Act 1971 c 40 The Stationery Office 1971


33. Office, Shops and Railway Premises Act 1963 c 41 The Stationery Office 1963

34. Level Crossings Act 1983 c 16 The Stationery Office 1983

35. Railway Regulation Act 1840 c 97 The Stationery Office 1840

36. Railway Regulation Act 1842 c 55 The Stationery Office 1842


38. The following list of Guidance and Standards is neither exhaustive nor carries any implied prioritisation, but provides a starting point for further reference to be made:

   - *Railway Safety & Standards Board’s Railway Group Standards*
   - *UIC Standards*
   - *Offices, Shops and Railway Premises Act 1963 - HSWA*
   - *British Standards Institute Standards*
   - *CENELEC Standards*
   - *The “Yellow Book”*