Inspection Manual

ROGS initial integrity - inspection of transport operators safety verification and change management arrangements.

ORR guidance for HMRI inspectors

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Introduction

1. When transport operators (TOs)[1] introduce new or altered rolling stock or infrastructure, they need to ensure that health and safety considerations are incorporated into their design processes. ROGS requires that they follow one or more processes to achieve this, and they are:

   - interoperability authorisation;
   - safety verification (SV) – for non-interoperable projects introducing new/novel technology and new or increased risks; and
   - change management (CM) for non-interoperable and non-SV projects.

2. This guidance explains our arrangements for inspection of TOs SV and CM arrangements. It should be read in conjunction with HMRI "Guide to the application of safety verification".

3. Interoperability authorisation is dealt with in separate guidance, "The Railways Interoperability Regulations 2006 – Guide to the authorisations of structural subsystems" (to be published). An interoperability authorisation to place a project subsystem into service satisfies the requirements for safety verification in ROGS.

4. ROGS regulations 5 and 6 set out the legal requirements for SV and CM processes, and schedule 4 sets out some specific requirements for SV. The HMRI 'Guide to the application of safety verification' provides guidance on the SV process and ROTS/ROGS transitional arrangements.

5. The inspection of SV and CM initial integrity processes contributes significantly to our validation of TO's safety management systems (SMS), in particular the validation of the 'risk evaluation and control' element of the TO's SMS. (See "Inspection manual – validation of ROGS safety management systems")

Overview of the process

6. Changing from HMRI approval of new or altered equipment and infrastructure to requiring TOs to have arrangements in place for ensuring initial integrity requires a new way of working and thinking for us and the rail industry. Our approach will be to check and challenge TOs arrangements.

7. The intervention process will in most cases be a joint approach involving both national expertise team (NET) and area team inspectors and will cover:

   - the management arrangements in place to deliver initial integrity and specifically the SV arrangements required by ROGS;
   - the TO's decision-making process for applying SV – to ensure they are applying it to the right projects and CM to the others;

[1] ROGS defines a transport operator as "any transport undertaking or infrastructure manager"

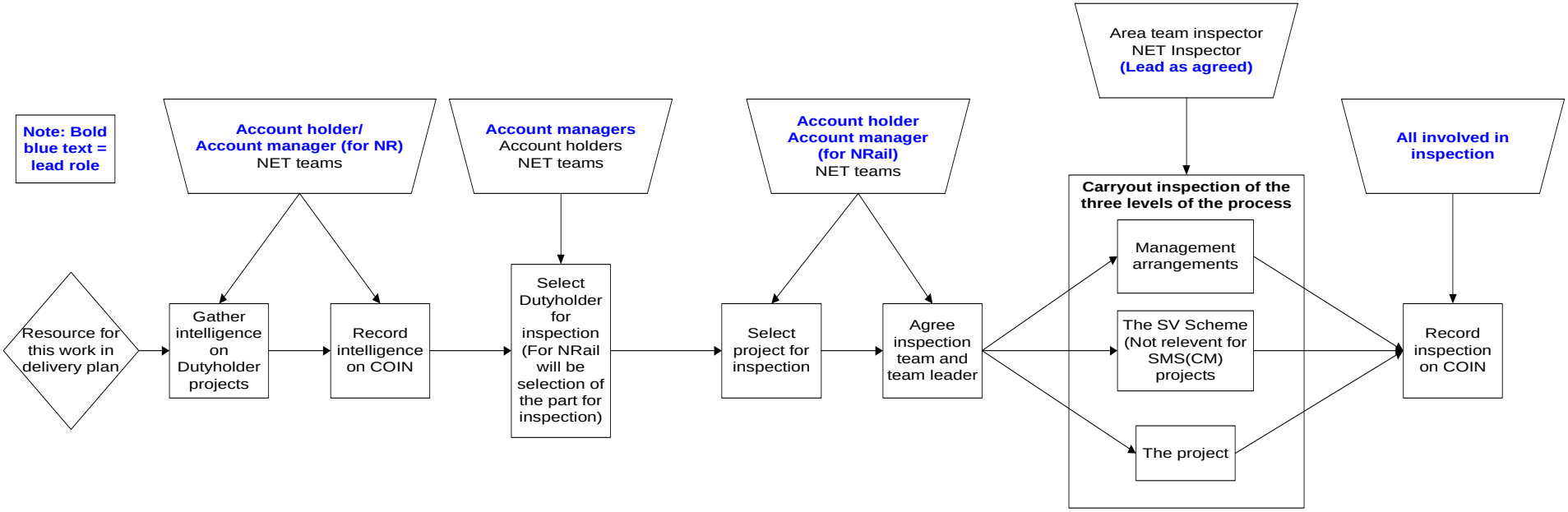
- for SV projects – ensuring that an appropriate independent competent person (ICP) has been appointed and has carried out the relevant tasks/duties properly; and
- inspecting a sample of the projects being carried out by TOs. These will be technical inspections to ensure the project is delivered with satisfactory safety levels. Inspection of the projects can be at any point in their life cycle.

8. There is no legal requirement under ROGS for ORR to be notified of new equipment/infrastructure projects so we will have to be proactive in getting enough of this information for ourselves and recording it on our Corporate Operational Information System (COIN). This information will be needed to inform the:
   - HMRI planning process and allocation of resources; and
   - selection of projects and TOs for inspection.

Planning and resources

9. HMRI senior managers (RISM) will allocate resource to initial integrity work to ensure that the new processes are being implemented by TOs and delivering acceptable results. In the early years our intervention in this area will be a priority.
10. The number and scale of projects that will fall within SV schemes is very much an unknown. Many TOs submitted ROTS projects to HMRI for approval before the October 2006 ROTS cut-off date. Consequently the number going through SV in the early years of ROGS may be low, but numbers will increase with time.

Flowchart of ROGS Initial Integrity Inspection Process



Roles and responsibilities

11. To deliver the ROGS initial integrity intervention process requires contributions from across HMRI, so the key roles and their responsibilities are summarised below.

Role	Responsibility
RISM	Provision of resource for initial integrity intervention via the planning process.
General managers	Promote and oversee the consistent adoption of the SV & CM inspection approach in their GM.
Team managers (NET and area team managers - ATMs)	Promote and oversee the consistent adoption of the SV & CM inspection approach in their team.
Account managers (NR, RCT, contractors and heritage)	In discussion with NETs and account holders identify TOs for inspection. Monitor consistency of implementation of the initial integrity inspection process.
Account holder/account manager Network Rail (NR)	When necessary, manage the collection of information on initial integrity projects and record this on COIN. In discussion with NETs: • Select projects for inspection. • Agree inspection teams and team leader. • Record reasons for selecting the project on COIN.
All HMRI staff (NET and area team inspectors, RICOs and administrative support)	Feed any information gathered on initial integrity projects to the relevant account holder/account manager (NR). Contribute to inspections as agreed with account holders/account manager (NR) and record inspections on COIN.
Legislative Development – Operational Policy team	Create the initial COIN information records for all relevant TOs. As process owner monitor, review and revise the intervention/inspection process with the account managers.

The process

Collecting and recording information on initial integrity projects

12. There is no legal requirement in ROGS for TOs to notify ORR of projects that fall within SV or CM. Similarly notification of projects is not required under the Interoperability 2006 Regulations. In order for us to assess TOs

and their compliance with ROGS we will proactively need to collect and record information on new projects. In most cases it will make sense for us to collect information on all types of initial integrity projects at the same time.

Purpose of collecting information

13. There are three reasons for collecting information on initial integrity projects.

- For TOC and FOC TOs we need to identify which ones have initial integrity projects either planned, ongoing or recently completed so we can identify TOCs/FOCs that would be appropriate to inspect.
- For TOs (e.g. TOCs/FOCs and Network Rail) that are to be inspected during a work year we need to identify the initial integrity projects they have planned, ongoing or recently completed so we can select appropriate sample projects for inspection as part of the inspection process.
- For interoperable projects information is needed so that NETs can arrange appropriate pre-authorisation involvement with the project.

Collecting information

14. The account manager for Network Rail (NR) and account holders for other TOs are responsible for managing the process to proactively collect and record (on COIN) information on initial integrity projects.

15. How the process is managed depends on the account holder/account manager (NR) and their relationship with their TO. However the TO should be aware of the frequency with which information will be requested, for example every 4, 6 or 12 months, and how the information will be collected, for example at meetings or in writing. In addition NET and area team inspectors and others in ORR are encouraged to pass information on initial integrity projects to the relevant account holder/account manager (NR); of particular use may be information from ROSCOs.

16. Any relevant information should be sent to the account holder/account manager (NR), or someone nominated by them for recording on COIN.

17. At the moment we do not know how many projects will go through the new ROGS SV/CM and interoperability processes. Although there will be a wide range of projects in terms of scale, complexity and cost etc it is likely that the majority will go through the CM process. To manage the amount of information it is recommended that:

- information is gathered for projects that TOs are likely to progress, and not those that are largely speculative. For Network Rail this would typically be projects that have reached stage 4 of their “Guidance for Railway Investment Projects” (GRIP) process;
- information is gathered and recorded on all projects identified for processing through Interoperability and SV; and
- for CM projects the account holder/account manager (NR) use their discretion to decide which projects to gather and record information on.

18. The core information we need to collect is:

- the name of the project;
- the type of project (interoperability, SV or CM);
- a brief description of the project;
- the location of the project;
- the proposed or actual start date;
- the predicted duration of the project;
- the company contact for the project (name and contact details); and
- for projects currently underway their current status or milestone reached.

19. The information gathered is to be recorded on COIN, and details of the COIN arrangements are at Annex 1.

20. A spreadsheet providing a suggested format has been set up to assist with recording information, and this is also at Annex 1.

21. As an alternative to the template spreadsheet, documents obtained from dutyholders regarding initial integrity projects may be attached to the COIN case if this is more efficient and provides the required information.

Selecting transport operators and projects for inspection.

Selection of transport operators

22. As part of the planning process, account managers in liaison with account holders and area and NET teams will select TOs for inspection. The selection will primarily be based on consideration of the following issues:

- ORR policies and direction from RISM;
- health and safety risks associated with the project;
- resources available;
- the number of projects being undertaken by an individual TO. Low numbers may indicate that the TO is not applying the SV process correctly; and
- HMRI knowledge of the TO e.g. previous performance with ROTS applications.

Selection of projects

23. Inspection of a sample of projects being processed under SV and CM arrangements will be a key element in determining whether a TO is complying with ROGS and whether they are operating safely.
The selection of project(s) for inspection will normally be managed by account holders/account manager (NR) in conjunction with input from relevant NETs and area teams. More than one project may be selected for a TO and they can include both SV and CM projects.

24. Factors that may be taken into account when selecting projects include:

- the health and safety risk(s) of the project, both catastrophic risks to the railway and employee safety risks (projects that currently fall within the ROTS General Notices arrangements are generally low risk and would not normally be selected);
- is new or novel technology involved;
- is the technology involved new to the TO;
- the complexity of the project;
- the choice of the ICP;
- the contracting arrangements;
- the financing arrangements;
- political interest;
- public concern/expectation; and
- HMRI topic strategies and priorities.

25. Once selected the reasons for its selection should be entered on the notes page of the COIN case recording the inspection of the project.

The inspection

26. The account holder/account manager (NR) will manage the inspection process and, in consultation with others, decide on a lead person for each project to be inspected. Some inspection work will only look at process issues, while other work will look at the health and safety arrangements associated with the initial integrity project. The inspection issues will normally determine who the lead is.
27. The project lead will decide who to involve in the inspection process, although joint teams of NET and area teams are to be encouraged and expected to be the norm.
28. There are three key strands to the inspection.
    - Checking there are appropriate arrangements in place for SV and CM.
    - Checking the decision for managing the project through SV or CM.
    - For the projects selected for inspection, checking that the arrangements in place have delivered those projects to appropriate levels of safety.
29. For SV projects the "Guide to the application of safety verification" (Section 6) describes three levels for the SV process.
    - The management arrangements.
    - The SV scheme.
    - The project.

    Each of the levels should be covered during the inspection.

Management arrangements

30. The aim here is for us to check the arrangements in place for managing the initial integrity risks involved with the introduction of new or altered vehicles and infrastructure. These do not need to be inspected for each project as this would be repetitive. They generally will only require inspection once for a TO during the life of their safety certificate/authorisation unless:

    - issues are identified during the inspection that need further inspection to resolve; and
    - the arrangements in place change.

31. As part of their safety certificate/authorisation application TOs will provide a high level description of their SV and CM arrangements. This description will provide signposts to the TO's detailed arrangements. The certificate/authorisation assessment process assesses the high level description provided but in most cases will not look at the detailed arrangements.

32. A key issue to check is the arrangement for deciding if a project should be managed through the SV or CM route. The test for when SV should be used is set out in Guide to the application of safety verification (Section 4).

The SV scheme (not relevant for CM projects)

33. The aim is, for each SV project selected for inspection, to check the application of the SV requirements to the project.

    - Schedule 4 of ROGS sets out the SV requirements, and should be used in conjunction with the "Guide to the application of safety verification" to check dutyholders arrangements. A copy of Schedule 4 and associated guidance is at Annex 2. Of key importance is the link between the TO and the ICP.

CM projects

34. For CM projects there are no requirements set out in regulations but useful sources of guidance are:

    - Appendix 4 of the guide to the application of SV which gives an example of how a typical CM project may be managed;
    - the RSSB engineering safety management "Yellow Book" which provides the detailed arrangements used in the industry; and
    - HSG 65 Successful health and safety management.

The project

35. The aim here is to do a technical inspection of the project to check that the physical works, plant or equipment being manufactured or altered under the project is being produced/carried a satisfactory level of initial integrity.

36. One of the early checks to make is to review the decision for the project to check it has been correctly allocated by the TO to SV or CM.

37. The technical inspection of the project can look at the project at any combination or all of its stages of development e.g. concept – design - installation – testing – commission etc.

38. To assist consistency and support inspectors in exercising professional knowledge, experience and judgement it is anticipated that inspectors will initially use existing guidance supporting the ROTS process e.g. safety approval guidelines (SAGs). In the medium to long term the need for specific guidance to support this process will be reviewed.

Closing out the inspection

39. Each aspect of the inspection should be closed out with the relevant action being taken with the TO. Where the inspection has been a team approach the team should agree the outcomes and the action to take with the TO.

40. Any action taken with the TO should follow the normal enforcement processes as set out in the ORR health and safety enforcement policy statement and supported by the enforcement management model.

41. The person leading the inspection should ensure that all aspects of the inspection are drawn together to provide an overall view of the TOs SV and CM arrangements, and this information is fed into the overall validation of the dutyholders ROGS SMS (Inspection manual – validation of ROGS safety management systems).

42. The inspection work should be recorded on COIN - see Annex 1.

Monitoring, reviewing and auditing the process

43. To help the validation process bed in consistently across the wide range of dutyholders covered by ROGS, account managers together with the Legislative Development – Operational Policy team will:

- monitor the take up of the process and how it is working, providing support to inspectors;
- review the process and the consistency of its application, providing advice and revising the process where required; and
- provide reports to RISM on the operation of the process.

44. ORR periodically audits samples of its processes. The safety verification and change management process would be within scope of this internal audit process and is likely in due course to be one of the processes sampled.

Annex 1 – Recording on COIN.

Information on TOs initial integrity projects

45. A COIN case entitled “Interoperability SV & CM initial integrity projects” will be created centrally (by Legislative Development – Operational Policy team) for each relevant TO for recording information on their interoperability, SV and CM projects.

46. Once the COIN record has been set up the account holder/account manager (NR) has responsibility for populating and maintaining it.

47. The COIN case will be set up as shown below.

- COIN support case category = inspection.
- COIN support case speciality type = other.
- Title of support case to be “Interoperability safety verification & CM initial integrity projects record”.
- Documents holding information on the TOs projects should be attached on the notes tab page.
    - A template spreadsheet providing a suggested format for recording initial integrity project information will be attached to this COIN case. The document is designed to be updated from within COIN as new information is added.
    - The document summary field text for the template document will read - “Document to record the projects being undertaken by the TO in scope of interoperability safety verification or SMS change management arrangements.” A copy of this template spreadsheet is at the end of this annex.
    - As an alternative to the template spreadsheet, documents obtained from dutyholders regarding initial integrity projects may be attached to this COIN case if this is more efficient.
- This COIN case should be linked to the cases recording the inspection of selected projects as a parent/child relationship with the “Interoperability SV & CM initial integrity projects” case being the parent record.

Recording the inspection on COIN

48. The inspection of the TO’s SV and CM arrangements should follow normal practice and be recorded on COIN using cases. As a guide it is suggested that separate cases are created for:

- the inspection of the overall management arrangements; and
- each project being inspected.

49. The cases should be created along the following lines.

- COIN support case category = inspection.
- COIN support case speciality type = other.

- Title of support case = “Safety verification or CM [d*elete as appropriate*] initial integrity inspection of [i*nsert name of project*]”.

50. Each case should be related to the following cases for the TO.
    - “Interoperability safety verification & CM initial integrity projects record”.
    - “ROGS SMS validation record”.

    These cases should be considered as parent cases and the inspections as child cases.

51. For each project the person leading the inspection (or part of the inspection) should take responsibility for setting up the COIN record. Others involved in the inspection should add to the case as appropriate.

Safety Verification and Safety Management System (change management) initial integrity projects record.

Company name	
Company address	
COIN customer number	
COIN case number	
Account holder	

Date project added	Type interop, SV or CM	Name of project	Brief description of the project	Location of project	Proposed/actual start date	Predicted duration of project	Company contact for project	For projects underway - current status or milestone	Comments (e.g. initial view on selection of project for inspection)		COIN case number (if selected for inspection)

Annex 2 – ROGS Schedule 4 – written safety verification scheme requirements.

The Schedule

INFORMATION TO BE INCLUDED IN A SAFETY VERIFICATION SCHEME

1. (1) The arrangements for the selection, appointment and retention of the competent person, which arrangements should at least provide for:

(a) the appointment of the competent person at an early stage in the design selection process;

(b) the involvement of the competent person in the establishing of the criteria to be applied in the verification process and the design selection process;

(c) the communication to the competent person of information necessary for the proper implementation, or revision, of the verification scheme and which information is necessary in order for the competent person to undertake the verification.

(2) The arrangements for the examination and testing of new or altered vehicles or infrastructure, which arrangements should at least provide for:

(a) the means of controlling risks that arise during the carrying out of any testing or trials prior to placing into service; and

(b)the standards and criteria to be applied in the verification process.

(3) The arrangements for the review and revision of the verification scheme.

(4) The arrangements for the making and preservation of records showing –

a) the examination and testing carried out to the new or altered vehicles or infrastructure prior to its being placed into service;

b) the findings of that examination and testing;

c) any remedial action recommended as a result of that examination and testing; and

d) any remedial action performed.

(5).The arrangements for communicating the matters contained in sub-paragraphs (1) to (4) of the Schedule to an appropriate level in the management system of the transport operator or responsible person as the case may be.

Guidance

The foundation of a safety verification scheme is the timely appointment of an independent competent person (ICP). The transport operator or responsible person should draw up the scheme taking into consideration the advice of the competent person. Clearly failure to appoint a competent person early on in the process will make this difficult and undermine the effectiveness and suitability of the scheme. The competent person should be involved in the establishment of the verification criteria. In this case a competent person could be an individual or a corporate body.

It is important that those carrying out the verification work have appropriate levels of impartiality and independence from pressures, especially of a financial or operational nature, which could affect sound judgement. They should not verify their own work, and their management lines should be

separate from those people whose work they are checking. For instance, it is acceptable in principle for a transport operator's in-house team to check work done elsewhere in the same organisation. However, it would influence objectivity if that team's management chain included the manager responsible for meeting targets that might be adversely affected by the outcome of the verification process.

In many cases the testing process itself has the potential to introduce risk onto the transport system. It is important that the verification scheme takes account of such risks and ensures that controls are in place to mitigate them.

The actual standards and criteria utilised in the verification process should be agreed and recorded to give transparency to the process and provide an audit trail.

The governance arrangements for making changes to the verification scheme should be recorded and where any changes are made they too should be recorded.

The retention of a written record of the verification undertaken is an essential part of the process. The records should be retained for the life of the subject of the verification scheme.

To ensure effective governance of the safety verification process the key information should be communicated to the appropriate management level. An appropriate level is that with sufficient authority to ensure that any action required in relation to the safety verification is taken.