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Level 3

Technical audit procedure for Rail Vehicle Engineering

Endorsement and Authorisation

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Issue record

Issue	Date	Comments
1	December 2007	

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 30 June 2008.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 4 to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Stage 4 was reached and not to comply with requirements contained herein, unless the designated Standard Owner has stipulated otherwise in the accompanying Briefing Note.

Reference documentation

BS EN ISO 19011	<i>Guidelines for quality and/or environmental management systems auditing</i>
NR/L1/RVE/0003	<i>Assurance, performance and monitoring of rail vehicles</i>
NR/L3/RVE/1001	<i>Method statement for working at site</i>
NR/PRC/ENG/SAF001	<i>Management of site visit safety</i>
NR/SP/ASR/036	<i>Network Rail assurance framework</i>
NR/SP/ASR/052	<i>Accreditation and development of suppliers</i>
NR/SP/OHS/019	<i>Safety of people working on or near the line</i>
NR/SP/OHS/00102	<i>Work activity risk assessment</i>
RVE/RA/001	<i>RVE generic risk assessment</i>

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1 Purpose

The Network Rail Health and Safety Management System specifies an effective company-wide assurance and audit programme for the assessment of internal management system controls and external suppliers. This procedure specifies the Rail Vehicle Engineering audit process and gives guidance on the general principles for the planning and management of these audits.

Audits are a mandated management tool used to provide assurance that company policies and standards are being adhered to. Audits enable the identification of root causes of failure or weak processes and work practices. Audits are used to monitor Network Rail's and its Suppliers' management system controls to understand where and what improvement actions are necessary.

This procedure supports the Network Rail corporate assurance framework requirements specified in NR/SP/ASR/036 and Rail Vehicle Engineering (RVE) standard NR/L1/RVE/0003. It is based on the guidance and principles of BS EN ISO 19011.

2 Scope

This Network Rail standard specifies requirements for technical auditing of Rail Vehicle, Depot Plant and Equipment maintenance suppliers and associated supporting facilities and service providers as required by Network Rail, RVE standards.

Typically, the types of audit covered by this standard include, but are not limited to:

- RVE Management System Audits – VAB, NoBo, NST, etc.;
- Depot Plant and Equipment Audits;
- Maintenance Service Audits (Rail Vehicles, Plant and Machinery);
- Special Topic Investigation Audits;
- Asset Condition Checks (Rail Vehicles, PWRA (Private Wagon Registration Agreement) Vehicles, RRVs, RMMMs, Depot Plant equipment, etc.);
- Witness Maintenance Audits;
- Supplier Audits, e.g. small tools and equipment;
- Site Registration Assessments;
- PWRA Audits.

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3 Definitions

For the purposes of this standard, the following definitions apply.

audit

objective examination of evidence for the purpose of providing an independent assessment of the extent to which the organisation is complying with its documented systems and processes and the extent to which those systems and processes ensure good governance

auditee

organisation being audited

auditor

person qualified to conduct audits

audit client

Network Rail person or other person or organisation requesting an audit

audit conclusions

outcome of an audit, reached by the audit team after consideration of all the audit findings or engineering assessments

audit criteria or scope

policies, standards, procedures, maintenance plans or contractual requirements against which audit evidence is compared

audit findings

results of the evaluation of the collected audit objective evidence against audit criteria/scope

audit objective evidence

records, statements of fact or information, relevant to the audit which is verified

NOTE Evidence can be qualitative or quantitative.

audit team

one or more auditors conducting an audit, one of whom is appointed as leader

NOTE The audit team may also include auditors undergoing training and, where required, technical specialists. Observers may accompany the audit team but do not act as part of the team.

Link-up

rail industry-wide Supplier Qualification Scheme (the assessment of supplier organisations carried out against predetermined qualification criteria)

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National Core Audit Programme NCAP

annual programme of audits which can impact on safety, including Health and Safety Management System audits, special topic audits and cross-functional audits

National Integrated Audit Database NIAD

system used to capture details of NCAP audits and resulting corrective actions

Network Rail Delivery Unit

end user of Rail Vehicles. It carries out or supports various business functions including business infrastructure maintenance, monitoring and renewal, critical activities such as Network availability, special operations and major projects support

non-conformance report NCR

form used to report non-conformance, where there is objective evidence of a failure of a process or system or where there is evidence of a breakdown of the management system

observation

statement used to draw attention to either good practice or describe circumstances where there is room for improvement but insufficient evidence exists to justify raising a non-conformance report

technical specialist technical expert

person who provides specific knowledge or expertise with respect to a particular subject to be audited

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4 Procedure

4.1 Audit programme

4.1.1 General

The RVE Standards and Assurance Engineer (SAE) or nominee shall prepare an annual programme for the audit of the RVE management system, Network Rail Delivery Units and key external facilities and service suppliers to Network Rail.

NOTE Part of a typical RVE and audit programme is shown in Appendix A.

When developing the audit programme, the SAE shall take into account the resources that are available, previous audit non-conformances (NCRs), observations and reports.

The RVE Standards and Assurance Engineer shall:

- a) develop an annual audit programme to assess the effectiveness of the RVE management system controls and those of key suppliers in order to meet the company's business needs;
- b) maintain audit non-conformance corrective action records so that there is visibility to management of their up-to-date status;
- c) obtain the approval of the Head of RVE for the audit programme;
- d) regularly review the RVE audit programme so that it continues to meet RVE business and Network Rail needs, and report any changes to the Head of RVE and key stakeholders;

NOTE The requirements of the National Core Audit Programme (NCAP) programme will be taken into when carrying out the review.

- e) report RVE programme completion and analysis of NCRs into the NCAP reviews.

4.1.2 Contractor/supplier (external) audit

NOTE Qualified suppliers are normally subject to an annual audit through the Link-up Supplier Qualification Scheme in accordance with the requirements of NR/SP/ASR/052.

To check that the requirements of its qualification continue to be met, RVE shall monitor the results of the *Link-up* audits for suppliers.

In addition to the *Link-up* scheme, RVE shall undertake periodic audits of maintenance service suppliers and facilities providers to assess their continuing ability to meet the assurance needs of Network Rail and compliance to contractual requirements. The level of imported risk to the network by the contractor's operations and products or services shall be regularly reviewed used to determine the frequency of audits necessary.

The Head of RVE may request special topic audits to be carried out following an incident related to a rail vehicle, depot plant, associated equipment or service. The Head of RVE may also request special topic audits if there is an increase in safety-related defects or when an adverse trend has been identified through safety performance monitoring.

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4.1.3 Internal audits

The RVE SAE shall implement a programme of internal audits to assess compliance of the RVE management system and individual Delivery Unit's processes and controls with mandated Network Rail standards and procedures.

Internal audit programmes shall encompass the key aspects of the Quality, Environment and Health and Safety Management System as appropriate at a frequency commensurate with the risk of failure of these controls.

4.2 Audit implementation

The RVE SAE shall monitor that the audit programme is implemented by:

- a) documenting and communicating the audit programme to audit clients;
- b) co-ordinating and scheduling audit activities;
- c) assigning competent auditors and audit teams to conduct audits;
- d) providing the required resources to the audit teams, including access to technical experts where such support is necessary;
- e) monitoring close-out of non-conformance reports;
- f) collating records of the audit activities;
- g) reviewing audit records;
- h) reviewing and approval of audit reports and arranging for their distribution to the audit client and other specified parties;
- i) where appropriate arranging for audit follow-up activities.

4.3 Monitoring and reviewing the audit programme

The RVE SAE shall monitor the output of the audit programme to assess if the objectives have been met and to identify any key weaknesses and/or opportunities for improvement that need to be either acted on or escalated to RVE senior management. Audit process key performance indicators shall be monitored by the RVE SAE and regularly reported to RVE management.

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5 Audit process

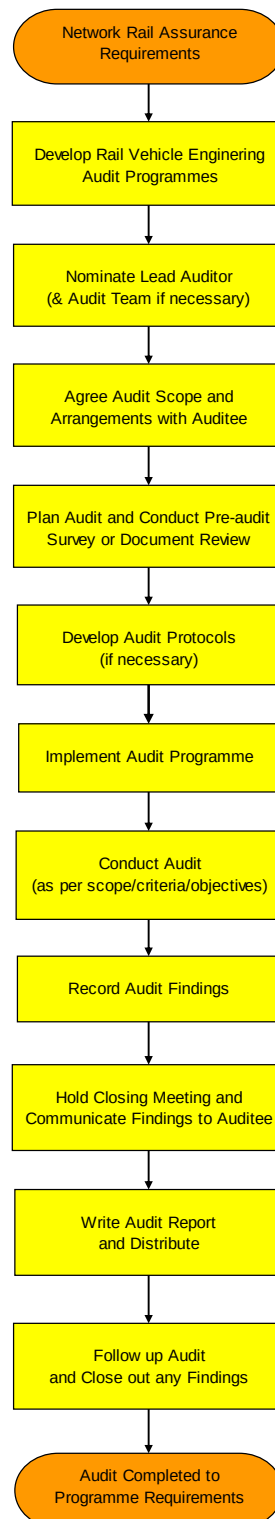


Figure 1 – Audit process flow diagram

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5.1 Initiating the audit

5.1.1 Objectives, scope and audit criteria

Each individual audit shall be based on clearly defined objectives, scope and audit criteria.

The audit scope shall describe the extent and boundaries of the audit in terms of factors such as physical location, activities and processes.

The audit criteria and reference documents may include standards, regulations, legislation, applicable procedures, contracts, agreements and management systems documentation.

Any changes to the audit criteria shall be agreed with all parties involved in the audit.

5.1.2 Feasibility of the audit

The SAE shall determine if the audit is feasible in terms of practical resources and management support.

Once this has been confirmed, the SAE or a nominee shall appoint the lead auditor. The lead auditor shall identify the overall resources necessary to carry out the audit, including any additional audit team members, e.g. technical specialists. The RVE SAE shall determine if a pre-audit visit is necessary to assess site specific risks.

Where the audit is not feasible, the lead auditor, in consultation with all the participating parties, shall propose a solution acceptable to the audit client. Care shall be taken not to compromise the audit objectives.

NOTE An example may be changing the scope of the aspects to be reviewed or the people in the organisation to be included in the audit because of the practicality of interviewing them all within the agreed timescale.

5.1.3 Establishing the audit team

Where a team of auditors is required, they shall be led by a trained and experienced lead auditor who meets the competence requirements as specified in clause 8. The audit team leader shall select the audit team in consultation with the RVE SAE.

Technical specialists might be needed to assist the audit team for product/technical audits; where technical specialists do not have the necessary audit skills, they shall be closely assisted by an experienced auditor.

5.1.4 Initial contact with the auditee

The lead auditor shall contact the auditee to initiate the arrangements for the audit and request any relevant documentation needed to plan the audit. The need for guides and any observers to accompany the audit team shall also be agreed.

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5.1.5 Initial document review

For internal RVE audits, the nominated auditor(s) shall prepare for the audit by examining the applicable Network Rail standards, management system documentation and audit protocol(s).

NOTE 1 These will usually include recent audit reports, non-conformance reports (NCRs) and observations raised on previous audits.

For external audits on suppliers/contractors, the auditor(s) shall prepare by reviewing the documentation provided by the organisation.

NOTE 2 The review will help to determine the auditee's readiness for the audit, taking into account the scope and complexity of the organisation and the objectives of the audit. If insufficient information is available, a preliminary on-site visit might be needed.

If the management system documentation does not satisfy the audit objectives or scope, the audit client and the auditee shall be informed. Further resources shall not be expended on the audit until the concerns are resolved to the satisfaction of the audit client and the lead auditor.

5.1.6 Planning the audit

The nominated lead auditor shall finalise the arrangements for the audit with the auditee, including agreeing the audit scope, management system aspects to be reviewed, date, time, composition of the team and, if needed, requests for additional documentation and records.

The lead auditor shall advise the audit client (e.g. Rail Vehicle Fleet Manager/Engineer) of the audit arrangements and ascertain if there are any specific areas requiring examination at audit.

If the auditee objects to any aspects of the audit schedule, they shall be resolved between the lead auditor, audit client and the auditee. The lead auditor shall confirm the agreed audit details and issue the audit schedule to the auditee. Any revisions to the audit schedule shall be agreed before or during the audit.

The audit schedule shall be sufficiently flexible to permit reasonable changes that may become necessary as the audit activities progress. The extent of detail provided in the audit schedule might differ between internal and external audit situations and between initial and subsequent audits. The plan details shall be adapted to suit the size and complexity of the auditee's organisation.

The lead auditor shall use an appropriate RVE checklist for the audit.

NOTE 1 Where it is necessary to prepare a new protocol, the lead auditor should consider the following sources of information:

- NR/L3/RVE/1001, RVE Method statement for working at site;
- RVE/RA/001, RVE generic risk assessment;
- RVE Site Specific Risk Assessment (if available);
- Network Rail Hazard Directory;
- Rail Vehicle Asset Register;
- Site Registration Report;