



RAIL SAFETY MANAGEMENT SYSTEM - 2023

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**Rail Safety Manager
National Railway Museum Inc**

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National Railway Museum


Rail Safety Management System - 2023

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1. Safety Policy and Culture

NRM - RAIL SAFETY MANAGEMENT POLICY

- ❖ Provide a safe working environment for all NRM rail personnel, staff, volunteers, contractors, and the visiting public.
- ❖ Allocate funds and resources to ensure adequate management of all rail safety related obligations.
- ❖ Ensure all NRM rail safety workers engaged in rail operations have current competency qualifications for their specific positions.
- ❖ Maintain and annually review the NRM Rail Safety Management System (RSMS), including all hazards and risks, to ensure rail safety compliance.
- ❖ Provide awareness training and re-training in procedures, rules and regulations to enable NRM rail safety workers to become and remain competent to undertake railway operations.
- ❖ Provide opportunities to all NRM rail safety workers, to foster and encourage ownership of the rail safety procedures, actions and compliance.
- ❖ Promote the need for having random drug and alcohol testing, and an acceptable fatigue management plan, with all NRM rail safety workers.
- ❖ Encourage and be proactive in seeking input and comments associated with all safety related matters.
- ❖ Ensure all NRM rail safety workers are provided with and/or have the necessary documentation, safety equipment and clothing to undertake their positions.
- ❖ Undertake safe train operations for the public and NRM visitors, by using maintained rolling stock, rail infrastructure and trains staffed with NRM rail safety workers.
- ❖ Ensure that the necessary property and public liability insurance coverage is in place to protect all property, NRM staff and volunteers and visitors.


.....
Chair
National Railway Museum


.....
Rail Safety Manager
National Railway Museum

Date... 1-7-2023

Date... 1-07-2023

2. Governance, Management, Accountabilities, Responsibilities and Authorities

2.1 General Overview

National Railway Museum Inc., trades as the National Railway Museum (NRM) and is an Incorporated body. Under the Rules of the Association, responsibilities of NRM are undertaken by a Board, whereby members of NRM elect six (6) persons to fill positions on that Board. In addition the Board has two (2) SA Government appointed representatives.

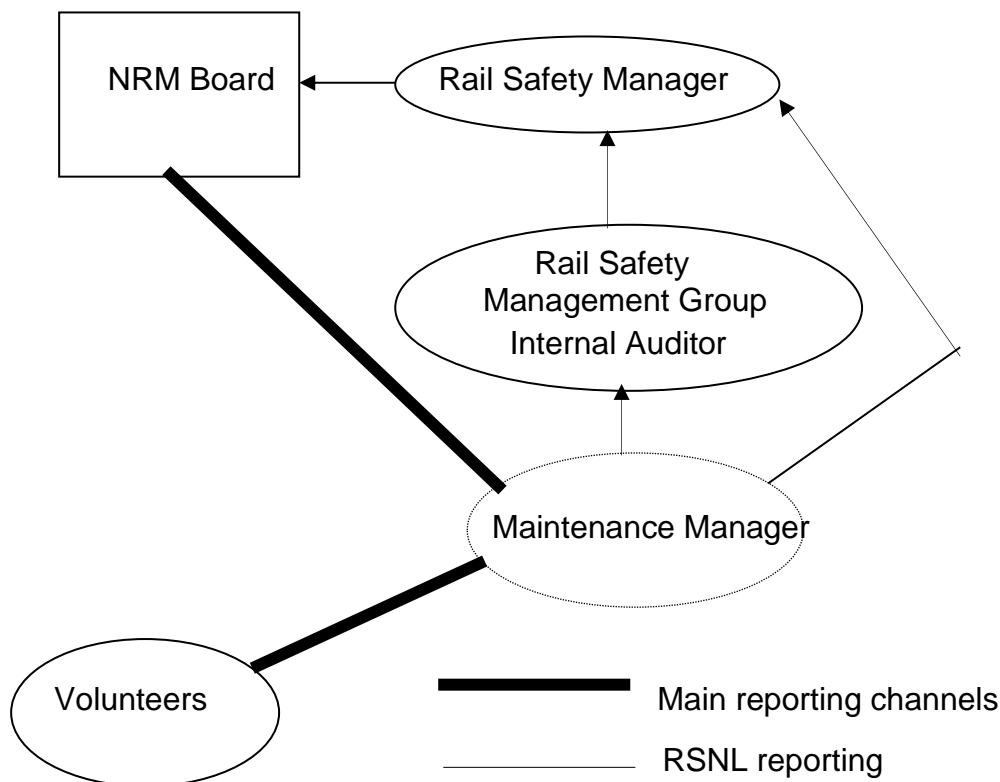
Of the six elected persons on the Board, one is nominated as Chair and one is nominated as Vice Chair. One of the six elected persons of the association is nominated as Public Officer.

NRM is Accredited as a Rail Infrastructure Manager (RIM) and Rail Transport Operator (RTO) pursuant to RSNL.

NRM employs a full time resource - Maintenance Manager, to assist with the compliance to the Rail Safety National Law (SA) Act and its legislative regulations.

The NRM Board also annually approves the appointment of the NRM Rail Safety Manager and NRM Rail Safety Internal Auditor.

2.2 NRM Rail Safety Organisational Structure



The Maintenance Manager is responsible for various duties and specific tasks as defined by the Board, and forms part of the Position Description for that role. This includes all necessary obligations and compliance matters under the Rail Safety National Law. (RSNL)

Obligations and responsibilities pursuant to the RSNL, and the compliance to the NRM Rail Safety Management System (RSMS) are managed on a day to day basis by the Maintenance Manager, under direction from the Rail Safety Manager.

2.3 Appointment of Rail Safety Manager

Prior to the end of each calendar year (31 December) the NRM Board will appoint a Rail Safety Manager for a period of 12 months and such appointment will be recorded in the Minutes of the association. The Rail Safety Manager is the point of contact for any communications with the Office of the National Rail Safety Regulator (ONRSR).

2.4 Responsibility for Producing Rail Safety Documentation

The Rail Safety Manager has the authority, and is responsible for creating, managing and maintaining all rail safety related documentation. Any amendments to the RSMS and any relevant rail safety documentation can only be authorised by the appointed Rail Safety Manager.

2.5 Responsibilities and Authorities

To enable NRM to have adequate designated resources for undertaking its rail safety responsibilities, the following steps are in place.

NRM engages a full time employed Maintenance Manager, and in conjunction with a nominated Rail Safety Manager, they have direct responsibilities to ensure compliance to the RSNL and Work Health and Safety Act (WHS). The Position Description and Responsibilities of the Maintenance Manager and appointed Rail Safety Manager collectively cover those areas of responsibilities.

Additionally, matters undertaken associated with those responsibilities include;

- Monitoring notices and changes to rail safety legislation, issued by ONRSR.
- Maintaining compliance to the RSMS.
- Sharing relevant rail safety information by the use of and exchanging emails and maintaining records of such information.
- All rail safety worker positions eg drivers, guards etc., have specific written Duties and are linked with their respective competency levels. These responsibilities are monitored, and reviewed where and when required.
- Training and retraining of all rail safety competent personnel.
- Ensuring all personnel have their specific personal files containing accurate and up to date information eg competency levels, medical examinations, training and retraining information.
- Ensuring there is a fatigue management plan and a drug and alcohol testing program in place.

- Convening opportunities and meetings to discuss issues including the eg annual review of the RSMS, annual review of the Risk Register, Corrective Action Register and any proposed amendments to the RSMS.

The Rail Safety Manager is responsible for:

- Reporting all RSNL issues to the NRM Board.
- General rail safety policy development and accreditation matters
- Operational competency and compliance to the relevant criteria.
- Reporting of Notifiable Occurrences to ONRSR.
- Preparation of any Variation to Accreditation documents for ONRSR.
- Preparation of Notification of Change documents for ONRSR.
- Compiling the annual Safety Performance Report for the NRM Board and forwarding to ONRSR.
- Authorising all rail movements.

The Maintenance Manager (in conjunction with the Rail Safety Manager) is responsible for:

- Overseeing of rail safety worker competencies.
- Liaising with external contractors that provide rail safety related assets and services to NRM.
- Dissemination of all appropriate documents, notices and instructions.
- Compiling all relevant information related to Notifiable Occurrences.
- Reporting details of any breaches of the RSMS and any other incidents to the Rail Safety Manager.
- Undertaking the necessary competency assessment and retraining requirements for all rail safety worker operational positions.
- Maintaining volunteers' personal files.
- Maintaining all RSNL and RSMS NRM relevant documentation.

The Internal Auditor is responsible for:

- Determining the audit schedule for the calendar year.
- Considering previous audit findings, corrective actions and operational performance.
- Assessment of the Corrective Action Register.
- Assessment of the Risk Register.
- Communicating results of the internal audits to the Rail Safety Manager and Maintenance Manager.

2.6 Transferring of Rail Safety Manager Responsibility

If for any reason contact with the Rail Safety Manager is not possible, the Maintenance Manager assumes all authority and responsibilities of the Rail Safety Manager.

If in the absence of both the Rail Safety Manager and Maintenance Manager the NRM Chair is responsible to delegate and/or initiate the necessary rail safety

actions to reduce all risks, until such time that contact with the Rail Safety Manager or Maintenance Manager, or a delegated replacement is established.

If this situation occurs and remains so for more than 24 hours, the Chair needs to inform ONRSR regarding that status, and subsequently ONRSR is to be informed when the contact with the Rail Safety Manager or Maintenance Manager has been re-established.

If no acceptable replacement is possible the Chair has the responsibility to inform ONRSR that NRM has ceased all rail operations until the matter is resolved.

2.7 Access to and Use of Land and Tracks

Museum (Minister's Licence Agreement) Land

NRM occupies land licenced (Land) to it by the Minister for Education. Operation of 1600mm, 1435mm and 1067mm gauge rail activities occur on this Land. NRM is responsible for the use and maintenance of all assets and rolling stock within the Land boundaries defined in the Licence Agreement.

Department for Infrastructure and Transport (DIT) - Interface Track

By way of a *Safety Interface Agreement (AG-SR-IC-020)*, NRM rail operations have a right to use land and track which forms the rail link between the DIT suburban network and the NRM.

The DIT *Interface Procedure (PO-SR-IC-053)* deals with train movements not operated by NRM (eg Adelaide Metro railcars or special movements), which are permitted to enter and use NRM territory.

2.8 Insurance

Public Liability Insurance

Pursuant to the accreditation requirements of the RSNL, NRM holds the necessary Public and Products Liability Insurance cover to undertake railway operations on the Land, and on the Interface land and tracks.

This insurance cover is assessed and obtained on an annual basis. A Certificate of Currency is issued to NRM following the purchase of the necessary cover, and a copy is retained on file.

Volunteers Insurance

Appropriate volunteer workers accident insurance is maintained by NRM, with Certificate of Currency, and a copy retained on file.

3. Regulatory Compliance

3.1 Assurance

The NRM Board treats rail safety compliance very seriously, and demonstrates that position by various means;

- Engagement of a full time resource - Maintenance Manager, with specific responsibilities associated with the RSNL and the Work Health & Safety Act.
- Allocation of resource time for RSMS assessment, hazard/risk reviews and management of the Risk Register and Corrective Action Register.
- Preparation and review of annual Safety Performance Report.
- Agenda item for rail safety matters at each NRM Board meeting.
- Promulgation of meeting minutes, actions and instructions.
- Display of Notices associated with rail safety information.
- Ensure the annual appointment of a Rail Safety Manager, and Rail Safety Internal Auditor.
- Financial commitment to the necessary random drug and alcohol testing.
- Financial commitment to the necessary insurance coverage.

3.2 NRM Rail Safety Management System

The implementation, use of, compliance with, management and annual review of the RSMS is the key driver to ensuring compliance to the RSNL and all relevant regulations associated with the operation of rail activities at NRM.

3.3 Critical Legislation

NRM is conscious of critical legislation associated with the safe and compliant operation of railway operations on site at Port Adelaide.

Primarily the;

Rail Safety National Law Act, and
Work Health and Safety Act

These are the two fundamental Acts that have a direct impact on those operations.

4. Document Control, Information Management and Safety Records

4.1 General Document Control

All relevant documentation is located in the NRM administration office. This includes confidential personal files, notifiable occurrence reports and files associated with incidents, rolling stock and track maintenance records

All relevant internal forms/documents are categorised and numbered with a distinctive identification number, and form part of the NRM records management Document Index (ref Corp.2011.354).

All completed rail safety related documents and forms are inspected and information extracted as necessary and the original documents and forms are filed.

4.2 NRM Rail Safety Management System

All RSNL accreditation documentation and details are kept in the administration office. The RSMS is issued to all operational rail safety workers and is accessible via the NRM Website. The version that is posted on the NRM Website is current, however once downloaded it is no longer a 'controlled document'.

Copies of the RSMS are produced from the electronic Master File, retained by the RSM. In addition an office copy of the RSMS for 'read only' purposes, is also kept in the administration office.

4.3 NRM Verification Register (VR)

The Verification Register (ref RSA.2010.46) is managed and maintained by the Maintenance Manager. The VR provides a record the issuing of the RSMS and any subsequent amendments, to all rail safety workers.

Any amendments to the RSMS are posted by email sent to all rail safety workers with a request for a response, to confirm that the person has received, read and understood the amendments. This confirmation is recorded on the VR.

4.4 Other Key Documents

Other key documents, records and files (but not limited to) that are kept securely in the administration office include:

- Rolling stock maintenance records for all operational rolling stock.
- Locomotive Boiler Inspection and Registration records.
- Master Track Plan (MTP).
- Annual Track Inspection Report form (ATIR).
- Track Inspection Report form (TIR)
- Minor Track Maintenance work report (MTM).

- Major Track Work report (MTW).
- Daily Inspection Reports (for locomotives, railcars, rolling stock).
- Annual Inspection Reports (for locomotives, railcars, rolling stock).
- Copy of the relevant Certificate of Currency for insurance purposes.
- Copy of the Museum License with Dept for Education.
- Track access Interface Agreements with DIT.
- Notice of Accreditation under the RSNL (SA) Act
- Notifiable Occurrences
- Annual Rail Safety Internal Audit reports.
- Annual Rail Safety External Audit reports.
- Alcohol Breath Test Result (ABTR) form.
- Drug Swipe Test Result (DSTR) form.
- Drug and Alcohol Test Results Register
- Drug and Alcohol Management Plan (DAMP)
- Re-Training Schedule (RTS)
- Hazard/Risk and Annual Risk Assessment Process.
- Annual Safety Performance Reports.
- Authorised Operators List – including competency levels.
- RSMS Verification Register (VR).
- Rail Safety Medical Register (RSMR) – all relevant volunteer information and results related to the National Standards for *Health Assessment of Rail Safety Workers*.
- Extracts of NRM Board Minutes (including but not limited to);
 - appointment of Rail Safety Manager and Rail Safety Internal Auditor
 - tabling and endorsement of annual Rail Safety Internal Audits and subsequent actions.
 - tabling and endorsement of annual Rail Safety External Audits and subsequent actions.
 - tabling and endorsement of the annual Safety Performance Report.

4.5 NRM Personnel Records

Operational rail safety worker competency personal records are kept in a locked filing cabinet, which is located in the administration office.

This includes all operational qualification certificates, medical certificates and any other details which may apply to the person under the NRM RSMS.

Personnel data bases are maintained and continually updated and these records are kept in the administration office.

4.6 Rail Safety Medical Register (RSMR)

The RSMR (ref RSA.2011.82) contains all relevant information and dates associated with the rail safety worker medical examinations, results, follow-up, dates of next required medical examination etc.

Copies of the medical assessments are kept on the volunteer's personal file.

Notation is kept to ensure that if a volunteer is overdue for the next medical examination, they are not permitted to undertake any rail safety work. The person is also informed of that status by the Maintenance Manager.

4.7 Drug and Alcohol Test Results Register (DATR)

The DATR (ref RSA.2011.60) contains all relevant results of both drug and alcohol random test results – ie who conducted the tests, the date and who was tested and their individual test results. The DATR is maintained and updated after each occasion a test has been undertaken.

NRM co-ordinates random Drug and Alcohol swipe and breath tests on site, on at least two separate days during every 12 month period.

A DAMP (ref RSA.2019.444) is in place and all rail safety workers are made aware of and reminded of its existence during their retraining.

4.8 Authorised Operators List (AOL)

The AOL (RSA.2011.63) shows all current qualified rail safety workers and also includes the various competency levels held by each rail safety worker. No rail safety worker is permitted to undertake any rail safety work, if they have not met the required deadline dates for completing the medicals and/or retraining.

The AOL is included in the 'Qualifications' yellow folder, readily available in the office foyer.

4.9 Re-Training Schedule (RTS)

The RTS (ref RSA.2017.357) is a document which lists all operationally qualified rail safety workers and it indicates the necessary re-training due dates.

4.10 Trainers and Assessors Register (TAR)

NRM maintains a Trainers and Assessors Register (TAR) which lists those individuals who are defined as Trainers and Assessors (ref RSA.2011.65).

The Register must indicate to which operational categories the Trainer and the Assessor are authorised to undertake - Operational Categories (Clause 13.15).

Definitions for those roles are:

A **Trainer** is an operationally competent rail safety worker authorised by the Rail Safety Manager and Maintenance Manager to carry out those training duties.

Attributes of the Trainer:

- Listed as an NRM rail safety worker.
- All previously acquired/obtained relevant qualifications/certificates and experience documents to be held on the Trainer's personal file (**Relevant documents – 18.2**).
- Holding the competency in the role in which the training is being delivered.
- Having undertaken a minimum of 3 years experience in fulfilling the specific duties in that competency.
- Appointed by the Rail Safety Manager and Maintenance Manager to that role.

An **Assessor** is an operationally competent rail safety worker authorised by the Rail Safety Manager and Maintenance Manager to carry out the assessment of the trainee's competency to undertake those specific responsibilities, associated with the position being assessed.

The assessment of a rail safety worker trainee's competency by the Assessor, can only occur once the Trainer and the individual are both satisfied they have reached a stage to be assessed in that role.

Attributes of the Assessor:

- Listed as an NRM rail safety worker.
- All previously acquired/obtained relevant qualifications/certificates and experience documents to be held on the Assessor's personal file (**Relevant documents – 18.2**).
- Holding competency in the role in which the training is being delivered.
- Having undertaken a minimum of 5 years experience in fulfilling the specific duties in that competency.
- Appointed by the Rail Safety Manager and Maintenance Manager to that role.

5. Rail Safety Management System Review and Revision

5.1 NRM Rail Safety Management Group

The NRM Rail Safety Management Group (RSMG) assists with achieving various objectives. RSMG is formed with the Maintenance Manager; Rail Safety Manager; Rail Safety Internal Auditor; and a minimum of one other appropriate person duly endorsed by the Rail Safety Manager and Maintenance Manager.

The key objectives of the RSMG are:

- spread tasks associated with compliance with the RSMS.
- assist the Maintenance Manager where appropriate.
- encourage input to document development.
- a minimum of two members of the RSMG (one of which must be either the Maintenance Manager or Rail Safety Manager, and the other must be the Internal Auditor), attend the annual review of the Risk Register and Corrective Action Register.
- review and have input to the annual Safety Performance Report.
- generate wider 'ownership' for rail safety compliance needs.

5.2 Annual Review of the Rail Safety Management System

The RSMS, which includes the Risk Register and Corrective Action Register, undergoes an annual review. It is reviewed primarily by the Rail Safety Manager, the Maintenance Manager, and Rail Safety Internal Auditor. The review, findings and proposed actions are documented and tabled with the NRM Board.

5.3 Safety Performance Report

The Rail Safety Manager is to prepare a Safety Performance Report for the 12 month period ending 31 December each year. The report is tabled with the NRM Board for endorsement by no later than 31 May each year. It is required for ONRSR by 30 June each year.

Safety Performance Report

The Safety Performance Report will contain:

- Executive summary
- General information – eg key statistics related to train operations.
- Assessment of safety performance KPIs for the reporting period.
- Deficiencies or irregularities in railway operations relevant to safety.
- Safety initiatives in the reporting period.
- Safety initiatives proposed for the next reporting period.
- The review process and consultation.

6. Safety Performance Measures

NRM is able to monitor and measure its rail safety performance under the RSNL and regulations, by the extent of compliance with and the application of procedures contained within the RSMS.

These steps are drawn from the ONRSR Safety Performance Reporting and Guidelines document.

Some of those key actions include (not limited to);

- The annual review and update of the Risk Register and Corrective Action Register.
- Review of the frequency and type of notifiable incidents and/or breaches of the RSMS.
- Annual internal audit rail safety findings and corrective actions.
- Annual external audit rail safety findings and corrective actions.
- All required medical examinations have been undertaken.
- All required training and re-training has been completed..
- All required alcohol breath and drug swipe tests have been completed.
- All required Daily and Annual Inspection Forms for all operational rolling stock and rail infrastructure have been fully completed.

Additionally key performance indicator (KPI) measures are adopted in advance of each year, and based on and influenced by the previous year's KPIs, findings and risks.

For example these KPIs will be either an expected percentage of achievement for that deliverable, or meeting an acceptable time frame for reporting/completing specific tasks, or a numerical result that meets that specific KPI.

These KPIs may alter from year to year, as a result of the annual review of the RSMS, Risk Register and Safety Performance Report, to be aligned to more appropriate and/or risk assessed areas of rail operations including rail safety worker competency.

The annual results of the KPI measures and findings are compiled and included in the Safety Performance Report for review and endorsement by the NRM Board – prior to being forwarded to ONRSR.

7. Rail Safety Internal Audit Arrangements

7.1 Appointment of Rail Safety Internal Auditor

Prior to the commencement of each calendar year the NRM Board will appoint a suitably competent Rail Safety Internal Auditor (RSIA) for the following 12 months, and this will be recorded in the Board Meeting minutes.

The RSIA will require an understanding of the railway operations contained within the RSMS. It is desirable for the RSIA to have some previous auditing experience and railway operational knowledge. The RSIA can also be an NRM rail safety worker, but that is not mandated.

7.2 Audit Process

At the commencement of the NRM Rail Safety reporting year the Rail Safety Internal Auditor shall determine an audit schedule in conjunction with the NRM Maintenance Manager. The audit schedule will be based upon immediate previous audit findings both internal and external, corrective actions, recent rail safety operational performance and will include an assessment of the NRM Risk Register.

Details associated with the internal audit procedures are contained in the Rail Safety Internal Audit Procedures (ref.RSA.2017.356)

There are two audits during the course of each 12 month period, one being an observation audit where the RSIA will undertake a visual check of the activities of rail safety workers, in addition to random questioning. The timing for this audit will be aligned to the most practical time to capture a number of rail safety workers on site, eg during major events. A separate desk top audit of procedures and documentation, incorporating key elements of the RSMS will also occur.

7.3 Audit Reports and Actions

The RSIA will provide a written report to the Rail Safety Manager within 60 days of conducting any audits, including the findings and details of any Non-Conformances and any Observations. If the internal audit identifies an element requiring urgent attention, the RSIA must advise the Rail Safety Manager within 24 hours of conducting the audit.

The Internal Audit report including proposed corrective actions and timing, is tabled at the next available NRM Board meeting. The internal audit report is included as part of the annual Safety Performance Report and endorsed by the NRM Board.

Advice of the corrective actions and control measures must be sent to the RSIA, within 60 days upon receipt of the audit findings.

8. Corrective Actions

8.1 Corrective Action Register (CAR)

In conjunction with the Corrective Action Procedure (ref RSA 2011.67), NRM maintains a Corrective Action Register (ref RSA 2011.66), which primarily tracks and allocates time frames, actions and responsibilities associated with (not limited to):

- non-conformance reports and observations that emanate from
 - rail safety internal audit findings and proposed actions
 - rail safety external audit findings and proposed actions
- annual Risk Register review and proposed actions

Part of managing the CAR, is the priority to deal with those actions that have been assessed with the highest risks, at least to implement immediate control measures to reduce the risk score.

The CAR contains anticipated completion timeframe, and by who, of the corrective action and is updated on conclusion of the proposed/agreed action.

Each six months, the CAR is reviewed to ensure that expected actions and completion time frames have been met and if not what the proposed reactions are to achieve a 'close out'. The CAR is also included in the RSMS annual review.

8.2 Risk Register maintenance

As a consequence of the activity associated with corrective action and the maintenance of a robust CAR, the Risk Register (ref RSA.2010.40) is used to manage identified risks and formalise the approval of any newly identified risks.

The Risk Register specifically sets out identified risks; a recording of any incident in relation to the risk; risk ratings and current control measures in place. Risks with the highest risk rating are listed first to assist with their ongoing management.

The Risk Register also provides for the review of current risk controls, a recording of revised risk ratings and action taken. The Corrective Action Register ID number is included in the Risk Register to assist with the management of identified risks and action taken.

The Risk Register also seeks to ensure a 6-month review of the Corrective Actions is undertaken.

9. Change Management

The NRM Board acknowledges that change management is an important part of risk management. The Board therefore accepts responsibility for ensuring that when changes are made to critical aspects of railway operations, the change management process is followed. This process is to ensure that the change is effectively managed and communicated to all who may be affected by that change.

If necessary or as requested, NRM is to notify ONRSR of any such proposed changes and have procedures in place to manage those changes. Refer to the NRM Change Management Policy and Procedure document (ref Corp 2010.4).

Additionally, to aid with the Management of Change process, NRM has a Notification of Change Form (ref RSA 2010.39).

A series of decision items and notification timeframes are contained in the RSNL regulations – under ‘Prescribed conditions and restrictions’.

Under the NRM Notice of Accreditation, Schedule 3 of that Accreditation specifically lists the requirement for notification associated with the decision to operate any rolling stock that has not been used or previously operated for more than 24 months. This notification is to be made to the Regulator not less than 28 days prior to the proposed operation.

NRM manages this obligation by complying to the NRM accredited rolling stock list (see 13.2), and by ensuring that those items undergo an Annual Inspection, and a Daily Inspection on the days of operation those vehicles are to be used.

If any item of rolling stock that has not been inspected for more than 24 months, it will need to undergo that Annual Inspection as a minimum, and ONRSR notified (as above) before it can be operated.

Any rail vehicle that has not been operated by NRM on site previously, must go through the notification process with ONRSR, and be subject to an inspection and risk assessment, before being operated.

10. Consultation and Internal Communication

The NRM undertakes rail movements infrequently and only on an ad-hoc basis. Apart from during events held throughout the year, there are only a few days of shunting and repositioning of rolling stock.

Additionally there is only a small number of active rail safety workers involved with NRM rail operations.

10.1 Direct/Indirect Communication

Regular information updates and notices are provided to volunteers by;

- emails
- notices posted at specific Notice Board locations around the site
- face to face discussions by the Rail Safety Manager and/or Maintenance Manager, on an ad-hoc basis during events, shunting days etc.
- part of training, re-training or preparation for medical appointments.
- reminders about incident reporting requirements and access to and the whereabouts of the necessary forms.
- specific OPERATIONS NOTICES are issued by the Rail Safety Manager not less than (when possible) 7 days prior to any major shunt and/or event or track closures and track re-openings. These are distributed to all rail safety workers and relevant personnel.

11. Risk Management

11.1 Risk Register and Procedures

The NRM Board fully supports a proactive approach to risk management, particularly associated with the operation of trains under its Accreditation and compliance with RSNL and regulations.

Additionally the importance of the Risk Register (ref RSA 2010.40) and its annual review is paramount to understanding, ranking and managing its risks on “as far as practicable” basis. Details surrounding the date, who was involved and the decisions made and why, as part of the overall review of the RSMS are documented and included in the annual review process.

Please refer to the “Integrated Risk Management Policy and Procedure” document (ref OHS 2010.48)

11.2 Human Factors

NRM appreciates the efforts and input undertaken by a small number of volunteers, who collectively ensure NRM can remain compliant and retain Accreditation under the RSNL. Whilst the operational parameters of the tourist and heritage rail sector may differ to commercial rail operations, some aspects of eg ‘working space’ environments cannot be altered due to their heritage value.

In giving consideration to human factors and the potential impact and importance to rail operations at NRM, the following list of fundamentals, and procedures are to be acknowledged and understood by the NRM rail safety workers;

- There is only a small number of NRM rail safety workers.
- There is a close working relationship between the Rail Safety Manager and Maintenance Manager, and the respective rail safety workers.
- Maximum speed 15km/h applies to all train movements.
- The NRM rail network is an exclusive operationally controlled site.
- Interface Agreements in place with DIT (ref *Safety Interface Agreement (AG-SR-IC-020) and Interface Procedure (PO-SR-IC-053)*).
- Fatigue Management Guideline (ref Corp.2010.3).
- Major event rosters include a relief position for all rail safety worker roles.
- DAMP (ref RSA.2019.444).
- Code of Ethics.
- Harassment Policy.
- Mental Health Policy (ref Corp.2015.196).
- National Police Certificate (NPC) and Working With Children Check (WWCC) requirements.
- Accessibility to all emergency services – Police, Ambulance and Fire, all within very short time frames, due to their locations at Port Adelaide.

12. Procurement and Contract Management

Due to the nature and type of railway operations undertaken by NRM, pursuant to its Notice of Accreditation under the RSNL and regulations, rail related activities on site associated with the maintenance/repairs to locomotives, rolling stock and rail infrastructure are primarily undertaken by NRM rail safety workers and/or procedures are in place for non-rail safety workers, including external resources.

12.1 Materials

When acquiring any materials associated with use in railway operations and/or rail infrastructure construction or maintenance, liaison occurs with similar rail heritage sector operators to avoid any potential risk of incompatible usage and following 'best practice'.

NRM maintains a list of preferred suppliers of materials, and the procurement of all materials associated with compliance to the RSNL, operations and maintenance are undertaken only by the Maintenance Manager and Rail Safety Manager or their nominated delegates.

Relevant risks are identified, assessed and mitigation measures as necessary put in place, before the use of such services and materials occurs.

12.2 Contractors/External Workers on Site

If external parties are engaged to undertake specific activities that fall under the RSMS, for example track maintenance and/or construction, vegetation/weed spray and pest control, then the NRM persons involved with that engagement process will ensure the level of certification and competency of those contractors/external workers, and all relevant risks are identified, assessed and mitigation measures put in place, before that occupation occurs.

As NRM operates an exclusively controlled site; it is unlikely for any competent contractor/external worker to be at risk when undertaking any site works, as there are robust train operational controls and track working processes in place.

If it is established with prior knowledge, that contractors/external workers will be on site during any anticipated train operations or track works, then the Maintenance Manager or Rail Safety Manager will take the necessary steps and ensure that the contractors/external workers, and the NRM operations or track working personnel are fully briefed of those arrangements.

Interface arrangements in place with DIT ensure communication and liaison between both parties, and therefore the arrangements for any contractor working for either party within the interface area is established and acknowledged.

12.3 Rail infrastructure works

During the scope and assessment of any proposed rail infrastructure maintenance and/or new works, consideration is given in regards to the extent of the works,

estimated time for completion of those works, which is then compared to internal resources available and operational demands.

Generally NRM rail safety workers undertake all planned Minor Track Maintenance (MTM) and some proposed Major Track Work (MTW). However if planned major works are beyond those resources, NRM may engage the services of external accredited Rail Infrastructure Managers (RIM).

Only those external parties and/or contractors who hold accreditation as Rail Infrastructure Managers (RIM) will be permitted to undertake any Major Track Works on site.

NRM ensures in the discussions and exchange of work scope and all known risks, that the external RIM is fully aware of those works and is given exclusive occupation of the site by the Rail Safety Manager, to safely undertake and complete those works.

A Certificate of Completion (or similar) for the Major Track Works from the external contractor will be necessary to permit NRM to 'accept back' those rail infrastructure works,

13. Engineering and Operational Safety Systems

Engineering and Operational System Safety

NRM has developed and uses an Engineering and Operational System Safety Standard (EOSSS), for all listed rolling stock.

13.1 Rolling Stock Register (RSR)

NRM maintains a Rolling Stock Register (ref RSA 2009.57) to record and manage the life of all listed operational locomotives, railcars and other rolling stock.

The RSR lists all Operational Rolling Stock for the purposes of identifying specific rolling stock utilised by NRM.

Separate files exist for each item of Operational Rolling Stock and each file contains details of all relevant repairs, maintenance, Daily and Annual Inspections, and any incidents.

13.2 Operational Rolling Stock

1600 mm gauge

801	-	ex Australian National 800 class diesel loco
321	-	ex TransAdelaide 300 class railcar
400	-	ex TransAdelaide 400 class railcar
257	-	ex Australian National 250 class railcar
GB8394	-	ex Australian National 8300 class Guards brake van
376	-	ex Australian National Centenary baggage/pass car
WAP 991	-	ex GWA Hi-Rail

1435 mm gauge

515	-	ex Australian National 500 class diesel electric loco
TP135	-	ex Australian National Truck Placer

1067 mm gauge

Peronne	-	ex Broken Hill Associated Smelters steam engine
144	-	ex SAR bogie passenger car
7553	-	ex Australian National Composite brake van
V1990	-	ex Australian National four wheel steel van

13.3 Operational rolling stock wheel profiles

Part of the necessary Annual Inspection of the accredited rolling stock, is to check the wheel profiles. NRM has in place a Wheel Profile Measurement Procedure (ref RSA.2014.184) which details how the annual wheel profile check is undertaken. NRM undertakes three critical wheel profile examinations:

- Flange thickness
- Flange height
- Wheel rim thickness #

These findings are recorded on the respective individual rolling stock file and in the Rolling Stock Register (ref RSA.2009.57)

Note: rim thickness (only) is not critical on the rail wheels fitted to the Truck Placer and Hi-Rail, due to mass of the vehicle and impact of wheels on the track – low risk. These vehicles are still inspected, as with all rolling stock, on any day of use in addition to the annual inspection.

13.4 Train Movement Management

To assist with understanding fundamental train inspection requirements, critical standards, key items and aspects to look for, NRM has adopted the *“Pocket Guide to Vehicle Examination- 2012”* (ref RSA.2017.351) from Genesee & Wyoming Australia purely as a guide and as a source of relevant information.

Additionally to aid rail safety workers with their assessment and inspection of their train, NRM has adopted the *“Guideline for Train Examining (Braking) - 2012”* (ref RSA.2012.352), purely as a guide and as a source of relevant information.

Train Inspections

Daily Inspection Forms are used by rail safety workers rostered for various train operations, including crew rostered on passenger train movements on that day, and shunting crew involved with those movements on that day. These tasks and the use of these forms are to ensure the safe integrity and performance of their locomotive, or railcars and any other listed operational rolling stock associated with those movements.

- Daily Inspection Form – Diesel Locomotives on 1600mm/1435mm gauge. (ref RSA.2006.16)
- Daily Inspection Form – Railcars on 1600mm gauge. (ref RSA.2006.14)
- Daily Inspection Form – Steam Locomotive Peronne on 1067mm gauge. (ref RSA.2012.17)
- Daily Inspection Form – Passenger Train consists on any gauge. (ref RSA.2017.15)

13.5 Track Infrastructure Definitions

As part of the induction and training process for all rail operational personnel, all trainee rail safety workers are provided with a demonstration of the variety of operational safe working infrastructure and assets.

The following represents a list of the key rail infrastructure assets/devices which are fundamental for train operations on the NRM site.

A **facing turnout** describes when a turnout is a set such that it can alter the direction of travel of an approaching rail movement.

A **trailing turnout** describes when a turnout is set such that it cannot alter the direction of travel of an approaching rail movement.

A **fixed point** is a component of rail infrastructure that avoids the necessity for incorporating a moveable turnout blade, used commonly in mixed gauge turnouts.

Spring lever turnout although designed to do so, at NRM these must not be trailed through. These turnouts must be pre-set for the movement. Always pre-check the operation of spring lever turnout prior to any rail movement, as dirt/stones and/or grease can alter their effectiveness.

Cheese knob turnout must not be trailed through. A pin is used to secure the 'heavy' cheese knob to hold the blades in the correct position. Leave the pin in place during any movement, and always leave the cheese knob turnout locked when not in use.

Turnout stands are fitted with indications which display the setting of the blades. When not in use, the operating lever must always be in the 'down' and locked position. The 'main line' will be displayed as a green arrow otherwise a yellow or red dumbbell will indicate that the turnout is set in the reverse position.

Note: a green arrow does not always indicate that the turnout is set for the straight leg of the turnout. Some turnout stands are fitted with gauge discrimination signs – ie indicating what gauge rolling stock is not permitted to run through those turnouts when set for a certain direction.

A **derail** protects rolling stock from accidentally leaving sidings and accessing the 'main line' or a line that is used as a primary running line. This device is positioned on top of the rail head, and will derail any movement passing over it. Only one of these devices exists, located on 1067mm gauge track near the Steam Shed workshop, to protect conflict between the 1067mm and 457mm gauge movements.

A **derail point stand** displays a purple diamond to indicate that the derail is in position on top of the rail or a white square when the derail is off the rail head. Only one of these devices exists, located on 1067mm gauge track near the Steam Shed workshop, to protect conflict between the 1067mm and 457mm gauge movements.

A **Stop Board** (painted red) is a trackside sign used to define the operational and track maintenance boundary between NRM and DIT, immediately south of turnout No.1. (ref DIT *Interface Procedure (PO-SR-IC-053)*)

A **track obstruction board** is a sign painted red, and will be positioned between the running rails of a track, to indicate that track maintenance work or track works are being undertaken beyond the sign, and all train movements on that track must stop. It will be extremely rare for such a sign to be in place when train operations are programmed.

A **fouling marker** is an indicator marker/peg/sign painted white or yellow. Only one of these exists - at turnout No.1, where due to the level of risk, where conflicting train movements create a potential hazard.

Gauge discrimination boards are in place at specific locations to reduce the risk of mixed gauge derailments. Some point stands are fitted with additional signs that advise/remind the rail safety worker to check the rolling stock consist and the turnout direction, when the turnout is set in a particular direction. Additionally there is a sign at the southern end of track No.1 leading from the Fluck Pavilion which indicates 'No mixed gauge movements beyond this point'. Running through the mixed gauge splitter will lead to the derailment of any 1600/1435mm gauge coupled rolling stock.

13.6 Rail Infrastructure Maintained Fit for Purpose

A maximum speed of 15 km/h applies to all tracks, which are all maintained to a 'fit for purpose' condition. Due to infrequent use of the tracks, combined with relatively low axle loads and speed, only minor maintenance is necessary and undertaken.

To assist with understanding these standards, components from the *1988 Australian National Railways – Track Maintenance Guide* are used, but purely as a source of information.

A specific NRM Track Inspection Engineering System Safety Standard has been developed which is the primary document for track condition and inspection. (ref RSA 2005.50)

13.7 Master Track Plan (MTP)

A Master Track Plan (ref RSA 2006.140) is managed by the Rail Safety Manager and Maintenance Manager. All Major Track Work (MTW) – is recorded on the MTP. (refer to RSMS Clause 14.2) The MTP and is reviewed and updated annually during each 12 month reporting period.

The MTP is retained in the Maintenance Manager administration office and only accessed by the Rail Safety Manager or Maintenance Manager.

13.8 Annual Track Inspection (ATIR)

In addition to the Daily Track Inspection Report (ref RSA 2006.25) when operations are scheduled, all tracks are inspected annually, using the basic method of:

- walking all of the tracks, inspecting for broken rails, horizontal rail movement, fish plate movement, loose rail and sleeper fastenings, etc.
- a random check for track gauge, using the combination of:
 - a fixed track rail gauge (calibrated and recorded)
 - steel tape measure (calibrated and recorded)
 - general line of sight

The Track Inspection Engineering and Operational System Safety Standard is used for the annual track inspection and the results are detailed in the Annual Track Inspection Report (ref RSA 2006.19).

The ATIR must be signed off as being operationally acceptable. Any faults or areas of concern which may prevent a train movement are to be verbally advised to the Rail Safety Manager and Maintenance Manager immediately. Those findings are also to be shown on the ATIR and conveyed to the Rail Safety Manager and Maintenance Manager.

Any other faults or matters, which will not prevent the safe operation of train movements, are to be shown on the form and forwarded to the Maintenance Manager within 7 days of the inspection.

13.9 Calibration and Maintenance of safety critical Tools and Equipment

NRM calibrates key tools and equipment used in the maintenance of rolling stock and rail infrastructure. NRM has a need for and uses a calibrated Tape. This tape (located and locked in the Maintenance Manager office) is used for checking rolling stock and rail infrastructure tools and equipment.

The risk of an incident caused by or contributed by poorly or inaccurately calibrated tools and equipment is low - due to daily checks of rail infrastructure and rolling stock on days of operation and the low speed (15km/h) of train movements on site.

Specific documents are used to control and manage this requirement; Calibration of Tools and Equipment (ref Maint.2015.192), and Calibration Test Record (ref Maint.2015.193).

13.10 Safe Working Operations

Principle Authorisation

- Under no circumstances shall any rail operations be conducted by NRM unless authorised in advance by the Rail Safety Manager or the Maintenance Manager.
- The Rail Safety Manager and Maintenance Manager will attempt, if circumstances require it, to confer before any rail operations take place.
- The necessary liaison between rail safety workers and the Rail Safety Manager or the Maintenance Manager is to ensure the rolling stock and rail infrastructure to be utilised is available for use.
- Prior to any major shunt and/or event, a special OPERATIONS NOTICE is issued to all rail safety workers involved, which details the intended operations.
- Any locomotive hauled passenger train movement (regardless of steam/diesel/gauge) is required to have as a minimum; Driver / Observer or Fireman / Guard.
- Any railcar passenger train movement is required to have as a minimum; Driver / Second Person (see reference in 13.13 Railcar Driver) / Guard.
- Any shunting undertaken by steam/diesel/railcar/any gauge is required to have as a minimum; Driver / Observer or Fireman or Second Person / one ground Shunter.
- The use of the Hi-Rail vehicle on rail is required to have the Hi-Rail driver and a second rail safety worker on board.
- When multiple train movements on the same or different gauges are required at the same time, these operations can be undertaken, but *only* after obtaining approval for that need from the Rail Safety Manager or Maintenance Manager.
- If any planned train movements operating at the same time could cause conflict, these operations can be undertaken, but *only* after obtaining approval from the Rail Safety Manager or Maintenance Manager and an Operational Procedure has been authorised and distributed to the respective train crews, eg use of Turnout No.1 conflict Multiple Movements Operational Procedure (ref. RSA 2012.145).

Maximum Speed for All Movements - 15 km/h

- only a qualified rail safety worker can take charge of any movement – eg steam loco, diesel loco or railcar, and at a maximum speed of 15 km/h.

- the driver of any external party train movement accessing the NRM site (eg DIT/Adelaide Metro railcar), must be advised in advance by the attending NRM rail safety worker, that there is a maximum speed of 15 km/h.

13.11 NRM Signals

Primary communication controlling all rail operations is by hand signal. These hand signals are described in full, in “Appendix A” NRM Hand Signals.

If any rail movement is to occur during the hours of darkness, approval must be obtained in advance with the Rail Safety Manager or Maintenance Manager, to clarify the specific instructions and safe working controls. If approved, any such movements will strictly be in accordance with the ‘night time’ hand signals as contained in “Appendix A” Hand Signals.

When an external party operated movement (eg DIT/Adelaide Metro railcar) requires access to NRM track during daylight or during the hours of darkness, the attending NRM rail safety worker authorised by the Rail Safety Manager or Maintenance Manager, will take charge of those movements – pursuant to the instructions outlined in the DIT *Interface Procedure (PO-SR-IC-053)*.

Fixed Signals

No regard is to be given to any fixed signals on NRM land and track which display indications. These signals are for preservation purposes and carry no operational authority.

Woodville Signal Cabin

In the context of attending to operate Woodville signal cabin (*Attended*), the definition of the signal cabin Attendee is a person who holds a rail safety competence level, equal to either:

Driver (D1/D2/D3/D4), Fireman (F1), Guard (G2/G3) or Shunter (S1).

When Woodville signal cabin is *Attended*, any rail movement traversing any rail tracks which may or could be manipulated from the Woodville signal cabin, the rail safety workers in charge of their movement must comply with any hand signals displayed by the Attendee from the cabin.

All train crew members must converse on and during the day, prior to any manipulation of turnouts from the Woodville signal cabin.

This is particularly critical when any 1067mm gauge rail movements are accessing tracks between the steam shed workshop and the running lines. Key example being steam engine Peronne going on and/or off shed during the day.

13.12 Tractor/truck placer (tractor) Repositioning of Rolling Stock

If any rail movement is necessary, where a front end loader, tractor or truck placer (tractor) is to be utilised, prior approval must be obtained from the Rail Safety Manager or Maintenance Manager.

The tractor can only be operated by a person holding a Load Shifting Permit (or acceptable equivalent) for the use of that machine, *but in addition* that person must hold a rail safety worker competency level equal to that of either; Driver (D1/D2/D3/D4), Fireman (F1), Guard (G1/G2/G3) or Shunter (S1).

The tractor shunt movement must also be accompanied by a rail safety worker at ground level, and that person must hold a rail safety competency level equal to that of either; Driver (D1/D2/D3/D4), Fireman (F1), Guard (G1/G2/G3) or Shunter (S1).

If the truck placer is required for the shunt movements, a Daily Inspection form is to be completed.

The tractor is to be firmly secured to the rolling stock with minimal length steel chain, (in the case of the truck placer, use of the knuckle coupling) to prevent separation during the movement. Due care must be undertaken to ensure that all persons and obstructions are clear of the proposed movement.

The rail safety worker at ground level must ensure direct visibility is maintained at all times with the tractor driver. If circumstances dictate, then an additional rail safety worker is to assist.

Maximum speed for all of these tractor movements is to be no faster than normal walking pace.

13.12.1 Use of 1600mm gauge Hi-Rail vehicle on rail

If any movement of the Hi-Rail vehicle on rail is required, prior approval must be obtained from the Rail Safety Manager or Maintenance Manager.

The Hi-Rail can only be operated by a person who holds a current Drivers Licence, *but in addition* that person must hold a rail safety worker competency level equal to that of either; Driver (D1/D2/D3/D4), Fireman (F1), Guard (G1/G2/G3) or Shunter (S1).

The Hi-Rail movement must also be accompanied by a second rail safety worker situated either in the front seat or rear passenger's seat, to enable immediate stopping of the Hi-Rail if in the failure of the Hi-Rail driver acting appropriately. The second Hi-Rail person must hold a rail safety competency level equal to that of either; Driver (D1/D2/D3/D4), Fireman (F1), Guard (G1/G2/G3) or Shunter (S1).

A safety switch has been installed in the Hi-Rail which can be operated from the front or rear seat and used to stop the vehicle in the case of an emergency. Maximum speed is 15km/h.

13.13 Rail Safety Worker - Code of Practice for Rail Operations

Railway operations at NRM are generally managed no differently to any other commercial railway system.

All rail safety workers have a direct responsibility for their own safety and for the safety of other personnel and to the public.

- All rail safety workers are responsible to dress using appropriate safety wear and be conversant with the planned railway operations for each day.
- All rail safety workers are permitted to carry out duties matching their operational competency levels.
- All rail safety workers are not permitted to report for duty whilst affected by intoxicating liquor or a deleterious drug.
- If involved in the planned movements for the day, ie passenger trains or shunting, the Guard / Shunter / Driver / Observer / Fireman need to liaise and ensure that all necessary Daily Track Inspection Report form and Daily Loco/Railcar/Rolling Stock Inspection forms have been completed.
- Appropriate safety clothing must be worn eg, a mandated orange safety vest and safety footwear when working on or adjacent to (within 3 metres of the outside rail) any track on any day declared a day of rail operations by the Rail Safety Manager or Maintenance Manager.
- A safety vest need not be worn for any inspections or for any track work undertaken on or near any track on a declared 'non rail operations' day.
- Any external parties requiring to work on or within 3 metres of the outside rail of any track, eg pest and plant control contractors, RIM contractors etc, need to liaise with the Maintenance Manager or Rail Safety Manager to confirm the status of no train operations on that day.
- Locomotive and railcar crew members (ie drivers, firemen and second persons on railcars) are permitted to remove their safety vest when inside the cab or on board the railcar, but if they are required to leave the train for any purpose such as shunting or inspecting their train consist, they must wear a safety vest.
- All rail safety workers must take care when carrying out any duty, so as not to be exposed to any risk of personal injury to themselves or others.
- All rail safety workers must take every opportunity to prevent the public from boarding or alighting from a moving train.
- All rail safety workers must be alert and recognise where and when dangerous situations may arise and exercise appropriate action to reduce the risk of personal or property damage.

- All rail safety workers are representing NRM and need to obey instructions as issued by any other key person having that relevant authority.
- All rail safety workers must be courteous and obliging to the public and to all other volunteers.
- If a rail safety worker is questioned by the public, or other volunteers, they must always give accurate information. If unsure, eg if questioned by any representative of the media, they must give directions to the best person available to handle the enquiry.
- If unsure of any duty or responsibility, the rail safety worker must immediately clarify the situation with other rail safety workers on site or the Rail Safety Manager or Maintenance Manager.
- Under no circumstances should a rail safety worker take control of or signal any movement beyond the extent of the NRM operational jurisdiction, that is, beyond the DIT operational signal boundary at Signal No.1154.
- All rail safety workers must be fully acquainted with the NRM track layout. This must include the location of all tracks and their associated track gauges, gradients, location of turnouts, derails, STOP Board or Gauge Discrimination signs on point stands or elsewhere, and any other infrastructure that forms safety critical infrastructure while undertaking any duty. These issues are incorporated into the initial rail safety worker induction and/or retraining procedures.
- All rail safety workers must be fully acquainted with the location of nearby structures, fences, buildings or rail infrastructure that may come within close proximity of the rail movement, eg platforms, gates, turnout stands, differing track gauges, pavilion doors and height clearances, location of buffer stops, and dead-ends etc.
- It is highlighted that whenever or wherever mixed gauge rolling stock movements are planned and undertaken, a close examination of the rolling stock and the proposed tracks to be used are assessed and any actions initiated prior to the movement. Related turnouts where risks of such a situation may occur are shown on plans in Appendix B, and the turnouts involved are fitted with appropriate gauge discrimination warning signs.
- The public must always be kept clear of any rail movements, including when shunting is being undertaken by tractor - by the use of either bunting, or clear directions and/or supervision by other rail safety workers.
- During any shunting movements, the operational locomotive or railcar must be positioned at the far southern end of the movement. No propelling of any rolling stock coupled to the southern end of the operational locomotive or railcar is permitted, unless;

- a) the rolling stock vehicle is fitted with an operational air brake and is checked and active,
 - b) a Shunter is physically riding on the most southern vehicle and has access to its working hand brake.
- When undertaking any shunting work, the train crew member or shunter must always ensure that the vehicles are coupled securely prior to the movement, to avoid the risk of eg runaway. No loose (kick off) shunting is permitted.
 - All rail movements on any gauge are restricted to a maximum of 15km/h. This speed must be reduced when either track restrictions exist, or if signalled to do so, or if the track is not sufficiently clear ahead to stop in half of the distance available.
 - All rail safety workers must always display the correct hand signal and ensure the signal is given promptly, accurately and from a position where it can be seen clearly, understood and acknowledged by other rail safety workers involved in the movement.
 - If a rail safety worker is unsure of any hand signal or instruction, or if the assisting rail safety worker (eg another Shunter) or if the line ahead cannot be seen clearly, the train movement must be stopped, until visual contact is re-established and the correct hand signal or message is conveyed and received.
 - If a rail safety worker is riding on any rolling stock in motion they must always ensure they have a secure footing and good grip – particularly if they are required to display a hand signal prior to the train movement stopping.
 - Whenever and wherever possible all rail safety workers must always converse with the driver/fireman/observer/guard/shunter (whichever is appropriate) to clarify any operational aspect during the course of that day of operation. If any doubt exists, stop the movement.
 - At the conclusion of shunting and/or stabling of any rolling stock the rail safety worker must ensure that the following has been undertaken as a minimum;
 - Where possible and/or practical, the rolling stock has been securely coupled to the immediately adjoining vehicle.
 - The last vehicle has had hand brakes applied (where possible).
 - Wheel chocks have been installed (as a minimum) on both sides of the most appropriate wheel of that item of rolling stock.

13.14 Operational Categories

Rail Gauge movements

	1600/1435mm	All gauges	1067mm
Driver	D1/D3/D4		D2
Observer	O1		
Fireman			F1
Guard	G1/G3		G2
Shunter		S1	

Duty No.	Description
D1	driver duties and responsibilities on 1600/1435mm gauge diesel locomotives.
D2	driver duties and responsibilities on 1067mm gauge steam locomotives.
D3	driver duties and responsibilities on 1600mm gauge Redhen railcars.
D4	driver duties and responsibilities on 1600mm gauge Bluebird railcar.
O1	observer duties and responsibilities on 1600/1435mm gauge diesel locomotives.
F1	fireman duties and responsibilities on 1067mm gauge steam locomotives.
G1	guard duties and responsibilities on 1600mm gauge railcars.
G2	guard duties and responsibilities on 1067mm gauge trains.
G3	guard duties and responsibilities on 1435/1600mm gauge locomotive hauled trains.
S1	shunter duties and responsibilities on 1600/1435/1067mm gauge movements.

13.15 Operational Qualification Criteria

Driver **515** **diesel locomotive** - **1600/1435mm**
 801 **diesel locomotive** - **1600mm**

- D1** - previously authorised diesel driver with a recognised railway authority (letter and/or proof of past experience), and
- hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager

OR

- min age of 18 years, and
- hold a minimum Category 2 Medical certification, and
- competency level approved by the Rail Safety Manager

Driver **Peronne** **steam locomotive** - **1067mm**

- D2** - previously authorised steam driver with a recognised railway authority (letter and/or proof of past experience), and/or hold a Licence to Perform High Risk Work (Boiler BS, BA) or its interstate equivalent providing it is recognised by SafeworkSA and hold a Licence to Perform High Risk Work (Reciprocating ES), and
- hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager

OR

- min age of 18 years, and
- Licence to Perform High Risk Work (Boiler BS, BA) or its interstate equivalent providing it is recognised by SafeworkSA and hold a Licence to Perform High Risk Work (Reciprocating ES), and
- hold a minimum Category 2 Medical certification, and
- competency level approved by the Rail Safety Manager

Observer **515** **diesel locomotive** - **1600/1435mm**
 801 **diesel locomotive** - **1600mm**

- O1** - previously authorised diesel driver/observer with a recognised railway authority (letter and/or proof of past experience), and
- hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager

OR

- min age of 18 years, and
- hold a minimum Category 2 Medical certification, and
- competency level approved by the Rail Safety Manager

Driver Redhen (D3) - 1600mm

- D3**
- previously authorised driver/railcar driver with a recognised railway authority. (letter and/or proof of past experience), and
 - hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager

OR

- min age of 18 years, and
- hold a minimum Category 2 Medical certification, and
- competency level approved by the Rail Safety Manager

Driver Bluebird (D4) - 1600mm

- D4**
- previously authorised driver/railcar driver with a recognised railway authority. (letter and/or proof of past experience), and
 - hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager

OR

- min age of 18 years, and
- hold a minimum Category 2 Medical certification, and
- competency level approved by the Rail Safety Manager

Note: a second person (rail safety worker) on the Redhen or Bluebird to accompany the Driver (D3 or D4) must have at least one of the following:

- D1, D2, D3, D4, G1, G2, or G3

Fireman Peronne steam locomotive - 1067mm

- F1**
- previously authorised steam driver/fireman with a recognised railway authority. (letter and/or proof of past experience), and
 - a Licence to Perform High Risk Work (Boiler BS, BA) or its interstate equivalent providing it is recognised by SafeworkSA and
 - hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager

OR

- min age of 18 years, and
- a Licence to Perform High Risk Work (Boiler BS, BA) or its interstate equivalent providing it is recognised by SafeworkSA and
- hold a minimum Category 2 Medical certification, and
- competency level approved by the Rail Safety Manager

- Guard Railcars (Redhen/Bluebird) - 1600mm**
- G1** - previously authorised guard/shunter or similar with a recognised railway authority (letter and/or proof of experience), and
- hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager
- OR**
- min age of 18 years, and
 - hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager
- Guard Narrow gauge (eg Peronne) train - 1067mm**
- G2** - previously authorised guard/shunter or similar with a recognised railway authority (letter and/or proof of experience), and
- hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager
- OR**
- min age of 18 years, and
 - hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager
- Guard Locomotive hauled train - 1600mm**
- G3** - previously authorised guard/shunter or similar with a recognised railway authority (letter and/or proof of experience), and
- hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager
- OR**
- min age of 18 years, and
 - hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager
- Shunter - 1600/1435/1067mm**
- S1** - previously authorised shunter/guard or similar with a recognised railway authority (letter and/or proof of experience), and
- hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager
- OR**
- min age of 18 years, and
 - hold a minimum Category 2 Medical certification, and
 - competency level approved by the Rail Safety Manager

14. Process Control

14.1 Rolling Stock Register (RSR)

The Rolling Stock Register (RSA 2009.57) data base is managed and maintained by the Maintenance Manager. It is updated whenever necessary and at least annually, associated with the rolling stock Annual Inspection, in addition to any issue or incident that involved that particular item of rolling stock.

Whenever any specific modification and/or maintenance/repairs occur on a particular item of rolling stock, those details are logged onto the RSR, by the Maintenance Manager or his delegate.

Daily Inspection Forms (ref Clause 13.4) are used by rail safety workers on each occasion any of the rolling stock is operated. These forms list all safety critical areas to be examined. The completed forms are forwarded to the Maintenance Manager immediately after the use of the specific rolling stock.

Annual Inspection Forms (ref Clause 13.1) are used by the Maintenance Manager (or nominated suitably competent rail safety worker) for the required annual inspection of operational rolling stock used during each 12 month period.

Key tools and equipment used in these inspections are checked in alignment with the Calibration of Tools and Equipment (ref Maint.2015.192), and Calibration Test Record (ref Maint.2015.193) documents.

No work can be undertaken on the listed Operational Rolling Stock (ref Clause 13.2) without the prior approval of the Maintenance Manager. On completion of that specific work, the appropriate rolling stock log sheet for that item must be completed. These are located in the Steam Shed where all other forms are accessible.

14.2 Track Work

Minor Track Maintenance (MTM)

Minor Track Maintenance (ref RSA 2006.24) eg ballast packing of sleepers or replacing up to a maximum of three adjacent sleepers, tightening fishplate bolts or rail fastenings, can be undertaken by competent rail safety workers, with details of the MTM advised to the Maintenance Manager within 7 days of that work being completed.

Major Track Work (MTW)

Major Track Work (ref RSA 2006.23) eg closing the track for rail movements, or any other track work declared as MTW by the Rail Safety Manager, cannot be undertaken without prior approval by the Rail Safety Manager.

This work can be undertaken by competent rail safety workers and must be inspected and completed to the satisfaction of the Rail Safety Manager, prior to the resumption of any rail operations over the affected track.

It is important that the form conveys precise details associated with eg accepting back the section of track for operations – or not. Details of the completed MTW must be forwarded to the Maintenance Manager and Rail Safety Manager.

As explained in Rail Infrastructure Works 12.3, non NRM rail safety workers can undertake MTW. A Certificate of Completion (or similar) for the Major Track Works from the external contractor is necessary to permit NRM to 'accept back' those rail infrastructure works.

Additionally if a track section is to be CLOSED for rail operations, then an OPERATIONS NOTICE is to be issued by the Rail Safety Manager to all rail safety workers and relevant personnel.

When the CLOSED section of track is cleared to be REOPENED for rail operations, then those details are to be included in an OPERATIONS NOTICE to all rail safety workers and relevant personnel.

The Master Track Plan (ref RSA 2006.140) is updated with the information provided on the completed MTW form, each calendar year.

Track Inspection Report (TIR)

Any tracks proposed to be used on any operational day are to be inspected and signed off as acceptable for operations, by a competent rail safety worker (Driver, or Fireman, or Guard, or Shunter) utilising the TIR form (ref RSA 2006.25). This TIR is forwarded to the Maintenance Manager on the conclusion of the day of operation.

Key tools and equipment used in these inspections are checked in alignment with the Calibration of Tools and Equipment (ref Maint.2015.192), and Calibration Test Record (ref Maint.2015.193) documents.

15. Asset Management

Due to the nature of operations undertaken by NRM, primarily associated with;

Low speed	15km/h maximum, and
Low axle loads	no commercial traffic, and
Infrequent usage	locomotives and rolling stock are operated only on average for about 20 days per year, and

All locomotives, railcars and other rolling stock, and all rail infrastructure is routinely inspected and maintained in a “fit for purpose” condition.

The lifespan and overhaul maintenance schedules are based on direct usage and as the extent of track and operable rolling stock are both quite small and manageable, the NRM asset management decision process is aligned with a risk based approach.

In addition, NRM has developed and uses an Engineering and Operational System Safety Standard, for the maintenance of all listed operational rolling stock (refer Clause 13) and a specific NRM Track Inspection Engineering System Safety Standard (ref RSA 2005.50) on an annual basis.

Purchase and disposal of assets

During any process of purchasing/acquiring materials or assets associated with the operation or maintenance of rail infrastructure or rolling stock, a ‘due diligence’ approach is undertaken to inspect the product to ensure it is suitably fit for the purpose, and that there are no hazardous materials present.

Additionally when in the process of disposing of materials or assets, a ‘due diligence’ process is adopted to ensure that such disposals are in compliance with eg WHS and Environmental Protection Authority guidelines.

16. Interface Co-ordination

16.1 Train operations: procedures associated with the arrival or departure of external party train movements

The *Safety Interface Agreement (AG-SR-IC-020)* and *DIT Interface Procedure (PO-SR-IC-053)* are in place between the Rail Commissioner/DIT and NRM which outline all instructions for the arrival or departure of any train movement between DIT at Port Adelaide Junction and NRM Land and tracks.

To further clarify responsibilities and actions associated with the attending rail safety worker, the following additional instructions are to be understood and complied with:

- All movements are to be authorised in advance by the Rail Safety Manager or Maintenance Manager.
- A rail safety worker will be authorised by the Rail Safety Manager or Maintenance Manager to manage the external party movements.
- The rail safety worker is to be advised in advance, with details of the type and length of train, scheduled arrival and departure times, and the location within the NRM site, at which the train is to arrive and depart.
- The agreed access tracks and turnouts to be used are to be set correctly and inspected prior to the arrival and/or departure of the train. Complete the necessary Track Inspection Report form.
- If any of the 457mm gauge cross-over tracks are to be removed, ensure those sections of track are clear of the proposed running track and the necessary 457mm gauge track Stop Boards are in place.
- The relevant rail access gates are to be unlocked, fully opened and secured, to reduce the risk of fouling the train movement.
- The rail safety worker will confer with Adelaide Metro Train Control at least 30 minutes prior to the arrival of the movement to confirm the timing, rail access arrangements and contact details.
- The rail safety worker will meet the train and ensure the driver is briefed about the movement and max. speed of 15 km/h, prior to permitting the train to proceed beyond the ACCESS AUTHORITY BOARD and onto NRM territory.
- Prior to the movement departing the site to leave NRM territory, the rail safety worker will confer with the train driver to ensure clarity is obtained surrounding those departing arrangements.
- Once the movement has left the museum site, the rail safety worker must ensure the museum boundary gates are closed and locked.

16.2 Level Crossing Interface Agreements

SA Aviation Museum

A roadway level crossing exists over which NRM tracks and railway operations occur. This roadway is primarily used for motor vehicle and pedestrian traffic to and from Lipson Street to access the SA Aviation Museum.

Pursuant to the RSNL regulations, all necessary requirements are included in the Road Rail Interface Agreement between the SA Aviation Museum and NRM (ref RSA 2010.45).

City of Port Adelaide Enfield (CPAE) / SA Department for Education

An 'at grade' pedestrian crossing interface exists with NRM licensed Land, tracks and railway operations.

Pursuant to the RRNL, NRM is required to seek to enter into the necessary safety Interface Agreement with the pedestrian crossing owner.

[Note: Despite numerous requests to all relevant agencies associated with the pedestrian crossing, NRM has not been able to secure an executed Interface Agreement to establish responsibilities for the use and maintenance of the pedestrian crossing. However due to NRM train movement maximum speed of 15km/h, its location and very good attributes in relation to visibility in all directions, this current non-compliant risk is considered Low]

17. Management and Investigation of Notifiable Occurrences

17.1 Management and Reporting of Notifiable Occurrences

If an incident occurs and it is of a nature that meets the criteria of a Notifiable Occurrence **Category A or B**, the following steps need to be undertaken.

The attending rail safety worker must immediately carry out the following:

- *If no serious injury or property damage has resulted, or if there are no life threatening consequences, or if no other rail safety workers, volunteers or public are in danger, (most likely a **category B** - subject to clarifying) immediately contact the Rail Safety Manager or Maintenance Manager.*

Regardless of whether it is considered a Category A or Category B or a Prescribed Incident, collect all relevant information applicable to the incident (included but not limited to):

- all train crew rail safety worker details
- time of the incident
- train direction, estimated speed, train consist information
- full details of any other parties involved and/or effected
- if possible take photographic evidence of the resultant incident
- likely cause if known

Do not permit any other rail movements to occur, – until the Rail Safety Manager or Maintenance Manager are on site. However if rail movements are necessary, obtain verbal approval to do so from either of them. Complete the Rail Incident Report form (RSA 2006.29) and forward it immediately to the Rail Safety Manager.

- *If passengers or other parties have sustained injuries, or serious property damage has occurred, (**Category A**) follow the NRM Emergency Management – Rail Operations (ref RSA.2017.355). Also contact ONRSR by telephone 1800 430 888, then the Rail Safety Manager and Maintenance Manager.*

Do not permit any other rail movements to occur and collect all key relevant information (as listed above). Complete the Rail Incident Report form and forward it immediately to the Rail Safety Manager. Do not leave the site and await the attendance of the Rail Safety Manager or Maintenance Manager or ONRSR representative or emergency services personnel – or otherwise the receipt of specific instructions.

Details of the criteria for Category A or Category B are posted on the designated Notice board.

Category A notifiable occurrences are to be immediately reported to ONRSR by telephone 1800 430 888. Also provide a written report to ONRSR within 72 hours.

Category B notifiable occurrences will require a written report to be forwarded to ONRSR within 72 hours.

Category C is an administrative obligation to be completed 'on-line' with ONRSR within the prescribed 12 month reporting period.

17.2 Voluntary and Confidential reporting of incidents

A nationwide voluntary and confidential reporting scheme for rail incidents (REPCON) will allow any person to confidentially report a rail safety concern about any rail operation to the ATSB. Contact can be made by either; telephone 1800 020 505 or email repcon@atsb.gov.au

17.3 Investigation of Notifiable Occurrences

The Rail Safety Manager, or an operationally competent rail safety worker nominated by the Rail Safety Manager, is to undertake appropriate internal investigations, as far as practicable, to satisfy the requirements of the ONRSR.

The severity level, or potential severity of the consequences, of the Notifiable Occurrence (Category A or B or a Prescribed Incident) will determine whether an Investigation is required or not, and if so the level and extent of that investigation.

To provide further assistance in the determination of the Investigation, in conjunction with the NRM RSMS, guidance can be obtained by referencing the Australian Standard AS 4292 – 2006 *Rail Safety Management : Part 7 Rail Safety Investigation*.

An Investigation Report (ref RSA 2012.146), incorporating all relevant information collected and reported on the Rail Incident Report (RSA 2006.29), is to be conducted by the Rail Safety Manager or Maintenance Manager. The investigation will include (not limited to):

- ❖ general site inspection.
- ❖ inspection of rail infrastructure.
- ❖ inspection of rolling stock involved.
- ❖ discussions with train crew members involved (as necessary).
- ❖ likely cause.
- ❖ proposed corrective actions.

Key elements in managing Investigation of Notifiable Occurrences are:

- ❖ The compilation and content of the Investigation Report, including the Rail Incident Report form.
- ❖ Reporting to ONRSR.
- ❖ Reporting to the NRM Board.
- ❖ Proposed Corrective Actions.
- ❖ Timeframe for corrective actions and control measures.
- ❖ Inclusion of the Notifiable Occurrence Investigation Report in the NRM annual Safety Performance Report

Based upon the type of operations conducted at NRM, the adequate standard of rail infrastructure and rolling stock maintenance, low speed and low risk factors, the following Table of Notifiable Occurrence Investigation Levels is in place.

Table of NRM Notifiable Occurrence Investigation Levels

Severity Level	Description of Occurrence	Level of Investigation	Reporting Requirements
1	An occurrence causing significant damage to track and/or rolling stock and serious injuries.	On reporting to and liaison with ONRSR, the NRM Rail Safety Manager will initiate an Investigation Report. Advice from ONRSR may indicate an agency Investigator or potential engagement of an independent Investigator.	An investigation, undertaken by ONRSR or independent Investigator. In addition an NRM Investigation Report to be completed pursuant to the requirements in the NRM RSMS 17.3. Notifiable Occurrence form and Rail Incident Report form to be completed pursuant to the requirements in the NRM RSMS 17.1, and forwarded to ONRSR and NRM Board. Include the incident in the NRM Safety Performance Report.
2	An occurrence causing damage to track and/or rolling stock or minor injury.	Investigation Report into the Notifiable Occurrence to be initiated by NRM Rail Safety Manager, or Maintenance Manager.	Investigation Report to be completed pursuant to the requirements in the NRM RSMS 17.3. Notifiable Occurrence form and Rail Incident Report form to be completed pursuant to the requirements in the NRM RSMS 17.1, and forwarded to ONRSR and NRM Board. Include the incident in the NRM Safety Performance Report.
3	An occurrence of minor consequence ie little to minor damage done to track and/or rolling stock – or where the risk is low and a potential for more serious results is not evident.	No Investigation Report is required – unless determined by the NRM Rail Safety Manager.	Notifiable Occurrence form and/or Rail Incident Report form to be completed pursuant to the requirements in the NRM RSMS 17.1. NRM Board to be advised and the incident included in the annual NRM Safety Performance Report.

18. Volunteer Information, Training and Competence

18.1 Rail Safety Worker Assessment of Competence

- Where specific external qualifications and/or competency levels are necessary to comply with an Operational Category for a duty, these are outlined in RSMS Clause 13.15 *Operational Qualification Criteria*. Each position lists the eligibility and competency levels needed.
- All rail safety worker Operational Category positions require the relevant Medical Certification for *Rail Safety Critical Worker Health Assessment* – included in RSMS Clause 18.7.
- All rail safety workers are required to have a good understanding of RSMS Clause 13.13 *Code of Practice for Rail Operations*.
- All rail safety workers are to be reminded of the existence of the NRM *Drug and Alcohol Management Plan* (DAMP ref RSA.2019.444) during their retraining.
- In all Operational Categories there is an element of training and experience necessary to permit the person to attain specific competency levels. Training and Assessment documents (ref RSA 2008.61) are used by the appointed Trainer or Assessor when undertaking that training or the re-assessment of already competent rail safety workers.
- The Training and Assessment documents are used on each case that a rail safety worker is being trained in a particular Operational Category or re-trained or assessed to measure their level of competency in those Operational Categories.
- All rail safety workers are assessed and retrained in each of their specific Operational Categories, within 3 years of attaining that competency level (RSMS Clause 18.3).
- If any rail safety worker is involved with ongoing incidents or behaviour not acceptable, the person will be interviewed by the Rail Safety Manager and/or Maintenance Manager. It will be made quite clear about the responsibilities and risks associated with their relevant operational duties.
- Additionally, on every opportunity available, the Rail Safety Manager or Maintenance Manager observe and question rail safety workers in regards to their awareness and knowledge of key elements in undertaking rail safety work, including but not limited to the following:
 - Knowledge and demonstration of Hand Signals (RSMS Appendix 'A').
 - Pre-planning and communication with all other rail safety workers involved in the proposed movements.

- Clear understanding of the rolling stock gauge/s and track gauge/s involved in the proposed movements.
- Knowledge of the yard and proposed movements (RSMS Appendix 'C').
- Being aware of any other train movements and/or potential conflict.
- Clearance – from structures and other rolling stock.
- Ensuring to keep out of danger and as far as practicable, remain visible to other rail safety workers.
- Awareness of members of the public and/or external party activities in and/or near the movements.

18.2 Volunteer Rail Safety Workers Competency Records

Any internal and external qualification certificates and relevant experience documents are kept on the rail safety worker's personal file.

These records (**Relevant documents**) can also include non-railway operational qualification certificates and documents, if deemed relevant to the skills and experience required to undertake specific rail safety work – particularly repairs and maintenance of rolling stock.

Rail safety workers, who attain competency levels in any specific area of Operational Categories (Clause 13.15), are issued with an Authority Card which must be signed by the holder of that card. The Authority Card must be carried by the rail safety worker whenever involved with rail safety work.

The Authority Card lists the Operational Categories held by the individual, which is recalled and re-issued from time to time, to ensure the current level of competencies are in alignment with those qualifications. These changes can be initiated by either attaining additional competency levels, or by being delisted for certain competency levels by personal choice or failing to comply with an Operational Category.

Details associated with the issuing of the card are entered in the appropriate data base and on the volunteer's personal file.

Rail safety workers must be aware that costs associated with any external agency and/or legislative regulations affecting their operational certification at NRM, will not be met by NRM and any arrangements to facilitate those requirements must be undertaken separately by the individual.

Relevant documents – These can include for example;

- Qualifications/Certificates obtained from an Accredited commercial rolling stock operator,
- Qualifications/Certificates obtained from an Accredited Tourist and Heritage railway operator,
- Qualifications/Certificates obtained in the course of general external private or commercial work activities, that are relevant to the skills and experience in alignment with the required rail safety work,

- Any document/letter that clearly identifies the experience obtained by the individual, in the course of their external works that is in alignment with the required rail safety work.

18.3 Three-Year Assessment Period - incorporating Re-Training

Rail safety workers are subject to an assessment within every three-year period. (ref Training/Retraining RSA 2008.61) Those persons will be re-trained on their existing areas of competency of rail operations. The Rail Safety Manager or Maintenance Manager facilitate the re-training, which will be undertaken by a Trainer as indicated on the Trainers and Assessors Register (TAR).

A series of specific documents are provided to enable the necessary re-training to be undertaken. The training or re-training is matched to the criteria and competency levels applicable to the rail safety worker.

All relevant details associated with re-assessment, training or re-training and the completed documents are filed on the respective rail safety worker's personal file, and the data is recorded in the respective registers.

18.4 Changes to Operational Qualification

Rail safety workers may apply to add to (or reduce) their extent of operational competency. The rail safety worker must apply in writing to the Rail Safety Manager and provide appropriate reasons and supporting documentation.

The Maintenance Manager and Rail Safety Manager will make an assessment, incorporating the reasons and reviewing the supporting documentation, including written reports from those rail safety workers who were involved with the specific training by the Trainer and the assessment undertaken by the Assessor.

If agreed by both the Rail Safety Manager and Maintenance Manager, a letter will be presented to the rail safety worker outlining the new level of competency and the date from which that addition of competency applies. If the application from the rail safety worker is not accepted, that person will be advised the reasons why and provided with suggested ways on how to re-apply in the future.

All relevant details associated with any changes to the competency level will be reflected on the rail safety worker's Authority Card and also recorded on the rail safety worker's personal file.

18.5 Physical, Mental and Literacy Capacity

All rail safety workers involved in rail operations, are assessed every three years as part of their re-training period, by the Rail Safety Manager and the Maintenance Manager. Based on past performance and general activities on site during those three years, an assessment is made of their physical, mental and literacy capacity during that process.

18.6 Responsibility, Trust and Discipline

A sense of responsibility and trust, based on previous performance, is established between NRM and the rail safety workers during the three-yearly rail safety assessment process. The general performance and attitude of the rail safety worker is monitored by the Rail Safety Manager and Maintenance Manager.

Rail safety workers not displaying common sense and responsibility may be requested to attend an interview, with representatives of the NRM Board, to discuss relevant issues and concerns. Rail safety workers who need to be interviewed a second time may temporarily lose their authority level, until progress is made to improve the situation. A third incident involving the same rail safety worker will result in a loss of their right to participate in any rail operations.

The NRM Board has powers, contained within the NRM Volunteer Manual, which could result in a termination of attendance and ceasing of all museum activities.

18.7 Rail Safety Worker Critical Health Assessment

NRM ensures that any rail safety worker role has been assessed and aligned with the NTC *National Standards for Health Assessment of Rail Safety Workers*.

NRM has risk assessed and nominated that all operational positions falling within the RSMS, will require a minimum Category 2 medical assessment.

The records and copies of the results of these medical assessments and dates of prescribed future medical assessments are entered in the Rail Safety Medical Register (SMR) and copies of the medical assessments are kept on the rail safety worker's personal file.

The Maintenance Manager has the responsibility to ensure all rail safety workers are advised at least 2 months prior to the expiry of their existing medical clearance.

Once the medical assessment is completed the rail safety worker must provide a copy of the assessment results to the Maintenance Manager, within 7 days of the assessment being conducted.

18.8 Rail Safety Worker Risk Assessment

As part of the annual review of the RSMS, NRM reviews the appropriateness of the Risk Assessment for the operational categories.

If a rail safety worker possesses a Category 1 medical assessment (eg from another RTO or RIM) under the *National Standards for Health Assessment of Rail Safety Workers*, that person will be automatically accepted on presentation of that documentation, as it exceeds the NRM requirement for a Category 2 medical assessment.

18.9 Rail Safety Work

All duties and responsibilities listed under Operational Categories (Clause 13.15) are considered rail safety workers, as defined in the RSNL legislation.

Additionally, any track work listed as Minor or Major Track Work in 14.2 is rail safety work. Note – no track work can be undertaken without a rail safety worker in attendance, apart from any out-sourced Major Track Work as explained in Rail Infrastructure Works 12.3.

If any operational maintenance work deemed rail safety related work (eg repairs and/or maintenance of locomotives, railcars or other rolling stock) is to be undertaken, then that work must be discussed with the Rail Safety Manager or Maintenance Manager and agreed in advance of that work.

A non-rail safety worker can undertake that specific operational work provided:

- it has been agreed to commence by the Maintenance Manager
- the person undertaking the work has been briefed as to the work
- is supervised by a relevant rail safety worker
- the Rail Safety Work – Job Authorised Report (ref RSA.2017.353) has been fully completed by that person and accepted and counter signed by the supervising rail safety worker.

19. Security Management

19.1 Security of the Public, Volunteers and Operations

There is a general awareness of security importance amongst all of the volunteers involved with operating the NRM, due mainly because of the context of the venue being predominantly a voluntarily operated museum.

A culture has been developed whereby all volunteers (including rail safety workers) are encouraged to raise issues with the respective Maintenance Manager or NRM Duty Manager.

As part of the daily routine, employed staff and volunteers are encouraged to assess the site with matters such as hazards and risks being paramount (regardless of being rail safety related or not).

Where and when considered necessary, complete the necessary Hazard Report form (ref OHS.2004.35) – which in turn is reviewed and assessed and if required logged as a new risk and mitigated, where and when necessary.

A Security Management Plan (ref RSA 2011.13) has been developed and implemented to give a robust and tangible set of procedures – available to all volunteers.

19.2 Security Responsibilities

A combination of the following (not limited to);

- ❖ NRM Maintenance Manager duty responsibilities
- ❖ NRM Board awareness
- ❖ Security alarm systems – office areas and site grounds
- ❖ Smoke detection alarm system
- ❖ Monitored security alarm system contract
- ❖ General rolling stock and rail infrastructure inspection requirements
- ❖ Incident Report procedures
- ❖ Security Management Plan

...collectively provide a serious approach to security to reduce risk and harm to the public, volunteers and staff.

19.3 Review of Security Arrangements

An annual review of the Security Management Plan is undertaken, as part of the RSMS annual review.

20. Emergency Management

20.1 Emergency Management - Rail Operations

NRM has an Emergency Management Plan in place for overall site management in case of an emergency.

Emergency management procedures associated with a rail safety incident are outlined in the Emergency Management – Rail Operations document (ref RSA.2017.355).

Procedures and protocols are established for the Emergency Management of an rail incident where serious (or potentially serious) injury, derailment, collision, explosion or major property damage has occurred involving a NRM railway operations.

The document is structured in three separate parts, driven by the nature of the rail operations on site.

Part 1: Specific crew responsibilities for immediate action and a protocol for Emergency Evacuation from an NRM operated train carrying passengers, when that train is involved in an Emergency.

Part 2: Specific crew responsibilities for immediate action and a protocol for Emergency Evacuation from an external party operated train carrying passengers, when that train is involved in an Emergency.

Part 3: Specific crew responsibilities for immediate action for an Emergency during NRM shunting operations.

For each circumstance, crew members are assigned specific roles in the immediate response which include:

- assessing the need, and if required calling for professional emergency assistance
- securing the train
- preventing the public from further harm
- rendering First Aid if necessary and qualified, and
- making contact with the RSM or his delegate who will attend and take charge of ongoing incident management.

It will be incumbent on the RSM to collect, or arrange to collect appropriate information and reports to be able to subsequently prepare required notifications to ONRSR.

21. Personnel Management

21.1 Blood Alcohol Level and Drug Testing and Procedures

NRM has a Drug and Alcohol Management Plan (DAMP ref. RSA.2019.444) and a Drug and Alcohol Test Results Register (DTAR - ref RSA 2011.60)

NRM undertakes random testing of blood alcohol breath test levels and drug swipe tests on rail safety workers, to ensure that they are below the prescribed limits.

Due to the infrequency of rail operations and the small number of rail safety workers engaged in these activities, NRM conducts these tests on as many rail safety workers as is practicable, during the course of their work on site. At least two random tests on separate days are undertaken during each 12 month period.

NRM has engaged the services of an Authorised Person, for the purpose of undertaking the necessary random alcohol breath and drug swipe testing. The methodology and frequency of the drug swipe and blood alcohol breath tests, is in alignment with the RSNL.

An Alcohol Breath Test Result (ref RSA 2011.43) form and Drug Swipe Test Result (ref RSA 2011.44) forms record those tests and findings by the Authorised Person in accordance with the policy and procedures.

Additionally the dates of all drug swipe and alcohol breath tests undertaken with rail safety workers are recorded on the DATR.

21.2 Fatigue Management

NRM is very conscious about fatigue and its possible consequences. NRM has implemented a Fatigue Management Policy and Procedure (ref Corp 2010.3).

Some of the key elements contained within the Fatigue Management Policy and Procedure, include risk mitigation measures that include (not limited to);

- Relief positions are included in the roster for all rail safety worker roles during major events, to ensure that no rail safety worker completes their shift without a measured break.
- Additionally a culture exists whereby all train crew members discuss their well-being at the beginning of their shift. If any doubts are raised during the course of the discussion, one of the train crew rail safety workers is to contact the Rail Safety Manager or Maintenance Manager to seek advice about the continuation or not, of the individual rail safety worker involved.

Appendix 'A'



National Railway Museum Rail Safety Management System - 2023

Hand Signals (RSA 2011.58)



red flag



green flag



white light



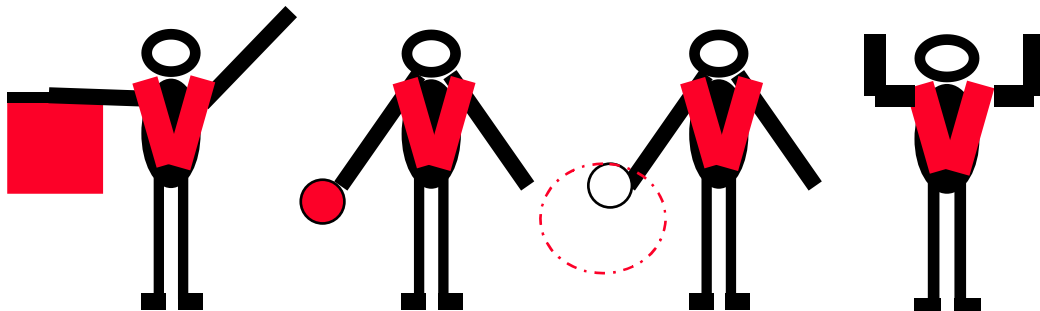
green light



red light

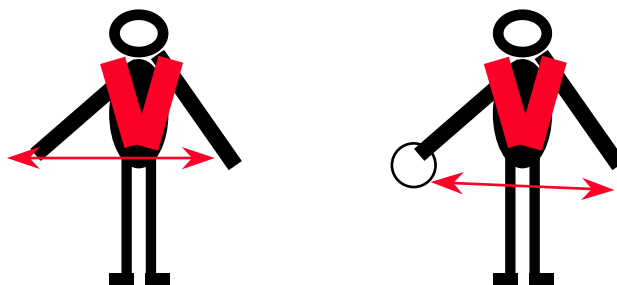
Stop Signals

This signal is given to **stop** a movement,



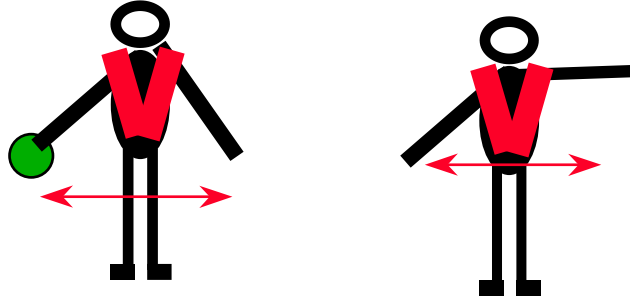
Move toward Signals

This Signal is given when the rail safety worker exhibiting the signal wants the driver to **move towards** the rail safety worker,



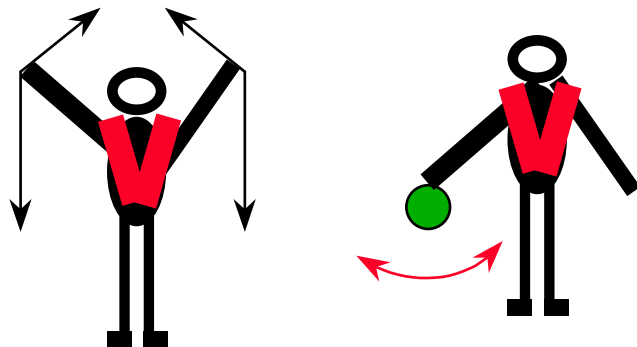
Move Slowly toward Signals

This signal is given when the driver is required to **slowly move towards** the rail safety worker,



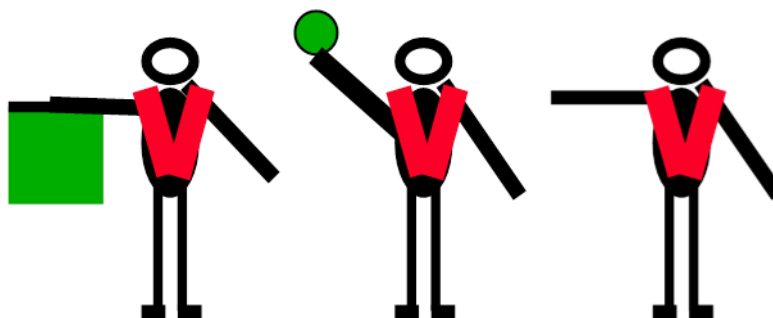
Ease Up/Couple up Signals

This signal is given when the driver is required to **bring the vehicles together** and exert pressure on couplers to assist coupling or uncoupling,



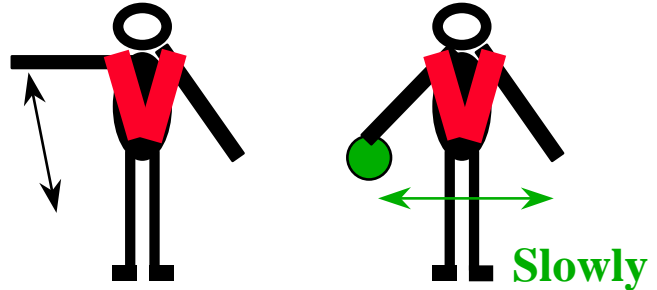
All Right - Clear to proceed Signals

This signal is given to the Driver when the track ahead is **safe** for the passage of the movement,



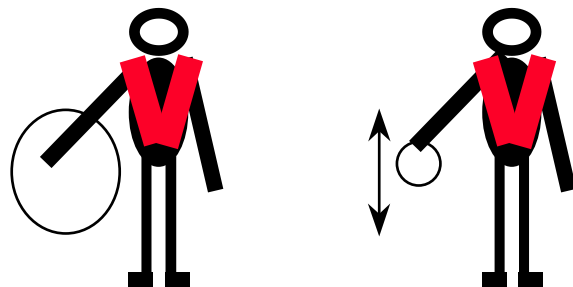
Caution - Reduce speed signal.

This signal is given when the Driver is required to **reduce the speed** of the movement,



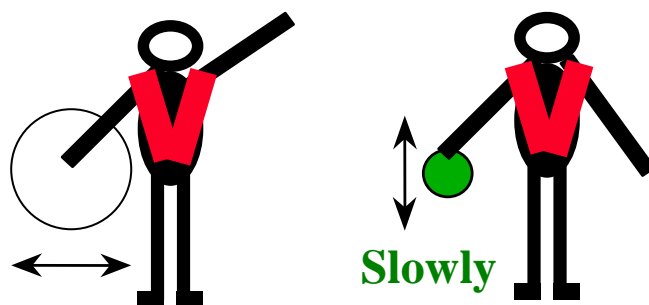
Move Away Signals

This signal is given when the rail safety worker exhibiting the signal requires the Driver to **move away** from the rail safety worker,



Move Away slowly Signal

This signal is given when the rail safety worker exhibiting the signal requires the Driver to move **slowly away** from the rail safety worker,



APPENDIX 'B' (2 pages)

