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WELLBEING

RAIL
ELEMENT 17L
20/10/2023

ROLLING STOCK PLANT AND EQUIPMENT SAFETY

PURPOSE AND SCOPE

This Procedure specifies the requirements and provides guidelines for preparing or adopting rolling stock engineering and operating procedures to comply with the relevant safety standards, rail regulatory requirements and applicable Rail Transport Operator systems.

Rolling Stock and other equipment are used daily in the execution of railway operations. It is essential that it be used, maintained, transported and stored in accordance with manufacturer's instructions in order to ensure that it continues to be safe in all circumstances.

As part of this requirement, it is also essential to ensure that only properly trained and competent persons operate such Rolling Stock and equipment. Failure to do so jeopardises other workers, the Rolling Stock, the infrastructure, railway operations and the general public.

This Procedure outlines the strategies which Laing O'Rourke will use to ensure the continuing safety of Rolling Stock and Rolling Stock users involved in railway operations.

1.0 PROCEDURES

1.1 LEGISLATION RELATING TO ROLLING STOCK

Legislation relating to Rolling Stock is contained within various states' legislation. All personnel using Rolling Stock, or with responsibility relating to Rolling Stock, are to ensure that they are familiar with the requirements contained within the respective state legislation.

Work Health and Safety legislation also requires several supporting Codes of Practice to be referenced and applied in certain circumstances.

This guidance material and standards are not legally binding however they have the force of law if specifically referred to in State legislation and may be used in evidence in legal proceedings.

1.2 IDENTIFICATION OF ROLLING STOCK/EQUIPMENT

All Rolling Stock and equipment shall be identified with a unique asset number which shall be displayed clearly in a prominent position on the Rolling Stock or equipment.

1.3 ROLLING STOCK AND EQUIPMENT MOVEMENT IN A YARD OR DEPOT

There will be times when Rolling Stock and equipment is required to be moved within a Depot. It is essential that a risk assessment is undertaken to determine how these movements will be controlled and that the processes are clearly defined and advised to all who will be involved in such operations.

1.4 MAINTENANCE AND REPAIR

The routine maintenance of Rolling Stock and equipment shall be undertaken in compliance with the criteria set down in **Element 17B Monitoring, Maintenance and Repair of Rolling Stock** and is recorded by the Select representative in the Asset Management system.

Routine daily maintenance and pre-start inspections are the responsibility of the Operator. The Track Supervisor or other equivalent that has the day-to-day control of the Rolling Stock shall ensure the Rolling Stock pre-start checklists are forwarded to Select on a weekly basis.

Select shall record the daily engine hours on a weekly basis with the hours recorded for servicing purposes.

If a piece of Rolling Stock requires non-scheduled maintenance or repair, the operator shall report to their supervisor/leading hand any items that may affect the operations of any rolling stock, plant or equipment.



They shall stand the machine down if a safety critical defect arises until repairs have been completed and signed off as operational by a competent person. A work instruction will be raised, and the work instruction remains open until the job is completed. Once complete, the maintenance / repair record will be saved in the plant asset folder.

On completion of the necessary repairs the relevant details are entered onto the relevant work order and processed in the Computer Maintenance Management system. This form is completed by the Select representative and a copy is provided to the Select Line Manager.

In addition to the above a suitable isolation system of 'danger tagging' and 'out of service tagging' shall be used to ensure that Rolling Stock is not used when it is in an unfit condition or is being repaired by a competent person. For full details refer to the **Primary Standards Plant and Equipment Isolations and Lockouts**. Where the RIM have their own isolation procedures, these must be followed in addition to Laing O'Rourke procedures.

1.5 GUARDING & SAFETY SYSTEMS

All pieces of operating equipment irrespective of type have dangerous moving parts which can cause serious harm or even death to persons coming into contact with the moving parts. In some cases there may be considerable machine noise which requires noise protection or sensitive parts of the equipment which require protection from the weather and dirt ingress.

See **Equipment Safeguarding Standard**.

There are no circumstances in which it is acceptable or permissible for Rolling Stock and equipment to be used without guards firmly in place. Any intentional usage in such circumstances shall be regarded as serious misconduct and will result in disciplinary action.

Similarly, where a machine or rolling stock is fitted with shields and or screens to reduce environmental noise or to keep dirt and weather away from engines, hydraulic systems and the like, they are to be kept in place at all times. They may be temporarily removed where necessary for essential maintenance or daily checks with the Rolling Stock off in accordance with the Isolation and Tagging Procedure. In these circumstances they are to be replaced immediately when checks and/or repairs are complete.

1.6 ROLLING STOCK OPERATOR COMPETENCY

Only employees trained and assessed competent to operate Rolling Stock and equipment will be permitted to do so unless under training, in which case they will be under constant and close supervision of the trainer or other qualified person. Laing O'Rourke has developed a competency matrix to align with the rail safety worker competency requirement determined by Australasian Railway Association (ARA) & network operators which allows only those persons assessed as competent to be permitted to operate the equipment.

All personnel competencies shall be recorded and made available to relevant personnel (both internal and external) to ensure that only authorised personnel are utilised in the relevant tasks or operations.

No supervisor shall permit or allow an employee to operate Rolling Stock or equipment unless they have satisfied themselves that the person is permitted to undertake the function allocated. Legislation details items of Rolling Stock which require specific standards and certification of employees to operate them. In addition many States have additional local legislation/regulations covering such aspects. Where such exists, only personnel duly assessed as competent in accordance with the legislation will be assigned to the respective activity.

1.7 ROLLING STOCK TRAVEL REQUIREMENTS

Whilst travelling the minimum standard shall apply:

- No person is to operate a Laing O'Rourke item of Rolling Stock unless they have the competence for the type of vehicle and approval from Laing O'Rourke.
- Only the operator shall travel on rolling stock unless there is equivalent protection provided for additional person. If the rolling stock is capable of carrying passengers, the operator of the rolling



stock is responsible for ensuring that all passengers are seated before moving and within the number of passengers allowed.

- If a person's authority to operate has been revoked / suspended for any reason they must advise their supervisor and cease operations immediately. Strict adherence to posted and temporary speed limits is demanded at all times.
- Maintain minimum and maximum distances at all times whilst traveling in consist of separate, uncoupled machines as required by respective Network Owners rules.
- All insulated machines shall slow and be prepared to stop on approach to level crossings or as otherwise required by the Network Owners rules, e.g. flagging on level crossing, manual operation of systems.

1.8 SECURITY AND STABLING OF ROLLING STOCK

On completion of the working shift or while stowed all Rolling Stock is to be left in a secure manner and/or stabled in such a way that there is no risk to the safety and health of any persons or railway infrastructure or railway operators.

Methods by which this can be achieved are:

- Locked in a secure fenced compound
- Mechanically immobilised e.g. fuel system isolation
- Electrically isolated
- Stabled in a well-lit area
- Stabled in a secure mode with keys removed and doors locked.

In high-risk areas consideration should be given to employment of security personnel or any combination of the above or other method which achieves the objective.

When stabling the Rolling Stock, the plant should be stabled in a suitable manner given the local facilities and should be as a minimum:

- Have park brakes applied
- Operating parts secured
- In all circumstances fit wheel chocks
- Engine immobilised.

NOTE: That in all circumstances if the track machine has train air brakes (e.g. "Westinghouse"), then the air must be "built up" prior to removal of the wheel chocks and or disengaging the park brakes or the machine may roll away without adequate air to operate the main brakes.

NOTE: Always ensure wheel chocks are removed before attempting to move the machine or derailment may result.

1.9 ROLLING STOCK AND EQUIPMENT

The variety of Rolling Stock in use in railway operations means that the range of hazards posed by each to the operators, bystanders and the rail infrastructure is broad. Each piece of Rolling Stock will require a specific assessment on its usage to establish the risks and controls needed. This will include the operational risks, as well as the competencies required by the operators and maintainers.



In addition to the requirements that may be identified by the risk assessment, the following general requirements are to be applied irrespective of the risk identified by the assessment:

- Where there is any risk that a piece of Rolling Stock/equipment could overturn or another object could contact the operator or the operator could be ejected from the seat, then suitable means of protection will be provided, maintained and implemented
- If the risk of a collision with other Rolling Stock, persons or structure exists then suitable warning devices shall be provided, installed or erected as the case requires. Examples of such include flashing lights, reversing/movement alarms, physical barriers (such as bollards) and similar should be used dependent on the works and the risk to normal traffic and operations
- Irrespective of any project specific requirements that may be identified by the project risk assessment, under no circumstances is any track machine to approach another track machine, work team or “on-track” worker, to a distance of closer than 20 metres within a possession. Where it is necessary to do so the machine is to stop, sound its horn and remain stationary until the other machine/track team have acknowledged the signal and given the all clear to proceed/approach
- Suitable first aid and firefighting apparatus shall be provided on all Rolling Stock. Alternatively suitable means for firefighting should be provided near the vicinity of its work envelope.

1.10 RISK ASSESSMENT OF ROLLING STOCK

The requirement to carry out a risk assessment is covered in various pieces of State legislation in all Australian States and Territories.

A detailed risk assessment needs to be undertaken on those tasks involving rolling stock and machinery. In considering this assessment the following aspects should be evaluated:

Hazard Identification by:

- Visual inspection of the rolling stock, Rolling Stock or equipment
- Testing
- Technical evaluation of the rolling stock, Rolling Stock or equipment
- Analysis of injury/dangerous occurrence data
 - When employees may be required to enter the area between two closing items of rolling stock, for the purposes of “coupling them” together
- Discussion with relevant ‘experts’ such as designers, importers, suppliers, manufacturers, installers, erectors, operators and others
- Means of quantitative risk assessment as the case may require

These risk assessments may be carried out on an individual basis at a particular worksite or on a ‘generic’ basis of a class of machine generally. Where generic assessment is used the assessment is to be clearly identified as such so that the user can carry out modification as may be necessary for the particular circumstance in which it is being used. For a generic assessment to be valid all use parameters must be demonstrably the same as when the original assessment was carried out.

1.11 MEANS OF CONTROL

The hierarchy of controls described in **Element 14 Risk Management for Railway Operations** must be applied when determining controls but it is also important to determine controls that can be applied so far as is reasonably practicable. Guidance material to assist in determining this process is contained in material issued by the the Office of National Rail Safety Regulator and RISSB.

Only where each control has been applied so far as is reasonably practicable can they progress down the control hierarchy commence. Any identified hazards shall be entered into relevant Project Risk Register and if significant passed to the Rail safety & Compliance Manager for inclusion in the Risk Register for Railway Operations.

Element 11 Management of Change (MoC) shall be applied when considering any changes or modifications to any rolling stock to ensure all hazards are identified and appropriate controls applied.



1.12 THIRD PARTY ROLLING STOCK AND EQUIPMENT

Unless advised otherwise by the Network owner all rolling stock operations conducted by Laing O'Rourke will be undertaken in terms of Rolling Stock accreditation they hold.

Before any subcontractor brings any Rolling Stock or equipment into use at a Project the subcontractor shall complete the Potential Supplier and Subcontractor Questionnaire and the relevant Pre-Mobilisation Rolling Stock Checklist which is subsequently checked by a site representative.

Where the Rolling Stock is engaged on a "Wet or Dry Hire" basis, the equipment will be hired through Select. Select will ensure that the supplier has been verified through the Vendor process. See 16A_Procurement_of_Rolling_Stock for more information.

For Wet Hire: evidence of the competency & verification of the competency of the operator(s) of the Rolling Stock and equipment shall be provided before being permitted to commence work. All personnel to be engaged by Laing O'Rourke to undertake rail safety work must also be the holder of a Rail Industry Worker Identification Card. (Refer to **Element 22 Rail Safety Worker Competence**).

Laing O'Rourke reserves the right to have any piece of Rolling Stock, equipment and/or its operator removed from the work site at any time for a failure to comply with the contract conditions, safety legislation, Worksite Protection rules, or for machinery safety transgressions.

1.13 MODIFICATION/CHANGE TO ROLLING STOCK

One of the greatest risks which can arise in the use of Rolling Stock is its modification. This can include "in the field" modifications.

Other examples include using a machine for a purpose other than for which it was designed or putting attachments on it "after-market" to try to make it more versatile.

It is vital that any changes to Rolling Stock are done only by authorised personnel with knowledge and understanding of the effect that such changes may cause to the operation of the Rolling Stock. Even then there is a risk that there may be underlying subtle changes to the Rolling Stock that are not foreseen and cause harm or other damage.

If it is required that a piece of Rolling Stock be changed or the maintenance regime relating to it be altered, it is vital that it be put through a formal and structured process to carefully and critically examine the requested change. This way the change can be fully explored to identify all the potential effects the change may have on the Rolling Stock and its safe, efficient, and economic use.

There is a specific process to be followed in these instances and this is prescribed in **Element 11 Management of Change** This process sets out the steps to be followed and the checks and examinations to be performed for the change to proceed and ensure the safety and reliability is not compromised. The process to manage the change must have all aspects documented and signed off by the respective people.

2.0 REGULATIONS, GUIDES AND STANDARDS

- Rail Safety National Law
- ONRSR Guideline Safety Management System
- RISSB Standards relating to rolling stock and in particular specific safety equipment.
- Rail Infrastructure Managers Rolling Stock Standards
- Rail Infrastructure Managers Train Operating Conditions
- Manufacturer's standards and operators manual
- WH&S Safety legislation relevant to the State or Territory where the item of rolling stock is to operate.
- AS-7472 2018 Railway operations management of change
- **Element 11 Management of Change (MoC)**
- **Element 16A Procurement of Rolling Stock**



3.0 FORMS, TEMPLATES AND RECORDS

The following documents will be retained / produced in accordance with this Procedure:

- Equipment Safeguarding Standard
- Manufacturers standards and specifications
- MoC Control Form
- MoC Implementation Plan
- Risk Assessment SFAIRP
- Inspection and test Plans
- Commissioning Checklists and reports
- Engineers Reports as required
- Rail Infrastructure Managers Registration
- Accreditation certification documents
- Machine Assessment Report
- Pre Mobilisation Checklist
- Pre-start Checklist for Rail track machines (relevant to the respective item of rolling stock)