Transport for NSW

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Technical Note - TN 054: 2015

Issued date: 04 September 2015

Subject: Withdrawal of signalling competency standards, procedures and guidelines from ASA requirements

Asset Standards Authority (ASA) publications include legacy RailCorp engineering standards that are applicable to TfNSW rail assets. A review of the legacy signalling documentation has resulted in the following competency standards, procedures and guidelines being withdrawn:

- SC 00 02 10 02 SP *Reassessment of Signalling Infrastructure Workers*, Version 1.1
- TMG SCS01 *Carry Out an Inspection in a Live Signal Location Competency Standard,* Version 1.1
- TMG SCS 02 *Work Safely in a Live Signal Location Competency Standard,* Version 1.1
- TMG SCS 11 *Assist in Inspection and Testing of Signalling Works Competency Standard,* Version 1.0
- TMG SCS 12 *Perform Inspection and Circuit Testing of Signalling Works Competency Standard,* Version 1.0
- TMG SCS 13 *Perform Circuit Function Testing of Signalling Works Competency Standard,* Version 1.0
- TMG SCS 15 *Plan and Direct Inspection and Testing of Signalling Works Competency Standard,* Version 1.0
- TMG SCS 21 *Set to Work, Test and Certify Track Circuit Competency Standard,* Version 1.1
- TMG SCP 01 *Carry Out an Inspection in a Live Signal Location Competency Assessment Procedure,* Version 1.1
- TMG SCP 02 *Work Safely in a Live Signal Location Competency Assessment Procedure,* Version 1.1

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- TMG SCP 11, 12 & 13 *Assist in and/or Perform Inspection and Testing of Signalling Works Competency Assessment Procedure*, Version 1.0
- TMG SCP 15 *Plan and Direct Inspection and Testing of Signalling Works Competency Assessment Procedure,* Version 1.0
- TMG SCP 21 *Set to Work, Test and Certify Track Circuit Competency Assessment Procedure*, Version 1.1
- TMG A1412 *Process for Signalling Personnel - Authorisations and Licensing*, Version 2.5
- TMG A1416 *Log Book Procedures*, Version 1.1
- TMG A1416 *Log Book Sheets*
- TMG G1418 *Signalling Safeworking Breaches,* Version 2.2
- TMG A1419 *Authority to Work on RailCorp Signalling Infrastructure, Permit To Work,* Version 1.1
- TMG G1419 *Guideline for the use of TMG A1419 'Authority to Work on RailCorp Signalling Infrastructure'*, Version 1.1
- Signalling License/Authorisation Application Form

Signalling competency requirements for each operating domain is now managed by the Rail Infrastructure Manager (RIM) for the respective network.

Authorisation:

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Engineering Procedure
Signals
Training and Competency

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TMG A1419

AUTHORITY TO WORK ON RAILCORP SIGNALLING INFRASTRUCTURE - PERMIT TO WORK

Version 1.1

Issued 6 December 2011

Owner:	Chief Engineer, Signals and Control Systems		
Approved by:	Warwick Allison Chief Engineer Signals and Control Systems	Authorised by:	Mark Albrecht Principal Engineer Signalling Competency

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Engineering Procedure

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Document control

Version	Date	Summary of change
1.0	June 2011	First Issue
1.1	6 December 2011	Updates to Permit to Work form plus related changes in the body of the document

Summary of changes from previous version

Summary of change	Section
Rewording of this section	4.2
Rewording of the Permit to Work form	Appendix A

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1 Purpose

A Signalling Permit to Work is the authority to perform signalling work for RailCorp. It ensures that appropriately competent persons are allocated to signalling activities taking into account site specific circumstances and conditions.

To perform work on RailCorp signalling infrastructure the following are required:

a) Listing in the current *TMG A1415*,

b) Assessed competence per *TMG A1412* as evidenced by a Certificate Of Competency,

c) Valid Rail Safety Worker Certificate (Gold Card) and,

d) A Permit to Work issued in accordance with this procedure.

This standard applies to all persons required to work on signalling infrastructure including signalling construction and signalling maintenance activities.

The issue of a Permit to Work is the process of matching the elements in the individual's Certificate of Competency with the requirements for a given construction or maintenance activity. (Note: 'activity' allows for the case of persons working on specific tasks for a commissioning)

A Permit to Work is issued on the basis of either:

- Project Area or;
- Maintenance Area.

2 Referenced Documents

TMG A1412 Process for Signalling Personnel – Authorisations & Licensing

TMG A1413 Reassessment of Signalling Infrastructure Workers

TMG A1415 Signal Engineers, Contract Personnel – Authorisation Status and Licensing Boards

TMG A1416 RailCorp Log Book Procedures or equivalent

TMG G1418 Signalling Safeworking Breaches

Rail Safety Act NSW 2008 Clause 22

3 Definitions

Certificate of Competency (CoC) Certificate of Competency is a detailed list of the technical component of the Rail Safety Worker Certificate. E.g. Signal Engineer, Signal Electrician, Signals Mechanical, Signals Ancillary and Signals Authorised Person.

Maintenance Area A Maintenance area will be as defined by the Manager Signal Maintenance.

Permit to Work A Permit to Work is the authority to perform signalling activities that a person is permitted to undertake in a particular location or project, and the equipment types upon which those activities may be performed.

Project Area This is the area defined by the scope of work or the contract documents.

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Rail Safety Worker Certificate (Gold Card) Is an Identification card that is issued by RailCorp listing all Safeworking and Technical competencies that the person has gained.

Supervisor The supervisor is the licensed Signal Engineer responsible for issuing a Permit to Work. They may be a Maintenance Engineer, Project Engineer or a Commissioning Engineer.

4 Requirements for Issue of a Permit To Work

All work on RailCorp's signalling and control systems must be performed by a competent person meeting the requirements of TMG A1412. Refer to Figure 1 Process Flow.

The Permit to Work procedure applies to all roles, for project and maintenance work alike.

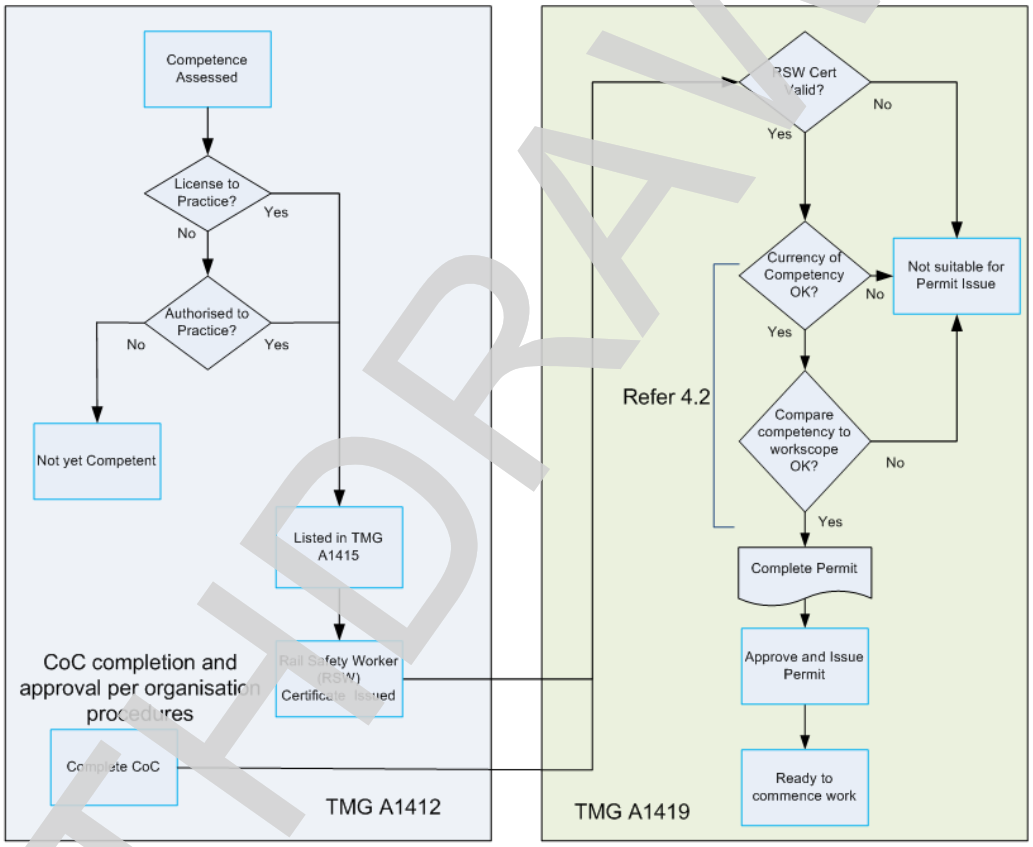

Figure 1 - Process Flow showing relationship between TMG A1412 and TMG A1419

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4.1 Identify Work Scope

The work scope must include:

a) The activity

b) The type of equipment

c) Reference to the Site Integrity Agreement/Local Maintenance Instructions that include:

i) The environment

ii) The constraints

Examples of a Work Scope are:

- For Major Works - Site Integrity Agreement, Installation Work Package, Inspection and Test Plan, Commissioning Work Package.
- For Minor Signalling Works - Minor Works package.
- For Signalling Support Works - Signal Support Work package.
- For a commissioning – the work instructions that will be issued to the person.
- For Maintainers – Work Orders, Technical Maintenance Plans (TMP's) and "Like for Like" renewals.

4.2 Items to consider for Assessment

When the supervisor reviews the applicant for the issue of a Permit to Work, the following issues shall be considered:

- Current Rail Safety Worker Certificate (Gold Card)
- Current Certificate of Competency
- Competency mapping between the CoC and the work scope (see Section 4.1)
- Currency of competence held (Evidence from Logbooks may include CoC and previous Permit to Work forms)
- Any current restrictions on the person e.g. investigation following an incident under TMG G1418 Signalling Safeworking Breaches or a previous signalling Safeworking incident with another organisation.
- Additional factors need to be considered for the requirements to carry out the work. To maintain signalling integrity the site specific factors such as location complexities, sensitivities and relevant Signal Engineering Instructions must be considered. Use page 2 of the Permit to Work form to analyse any additional risks.
- The additional requirements for the identified specific conditions need to be detailed and described in the Restrictions and Conditions section on the front of the Permit to Work form.

4.3 Completion of the form

The supervisor and the permit holder must complete and sign the Permit to Work form – Refer Attachment SF 1419/A.

For persons who are not yet competent or who have insufficient evidence of current competence, any restrictions or conditions applicable such as to the level of supervision required are determined and recorded on the Permit.

The responsibility of issuing Permit to Work comes from either the:

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- Manager Signal Maintenance, and may be delegated to Maintenance Signal Engineers

or

- Program Manager Signalling Commissioning, and may be delegated to Commissioning/Project Engineers.

or

- Chief Engineer, Signals & Control Systems

4.4 Permit to Work for Commissioning

A simplified process may apply to persons brought in to participate in a commissioning, which involves large numbers of personnel for a very limited duration.

Persons will be assessed and allocated commissioning duties on the basis of their Certificates of Competency and authorisations (as published in *TMGA 1415*); with Scope of Work defined in the Work Instructions they are issued.

In lieu of individual Permit to Work forms, the Commissioning Engineer will maintain a Permit to Work Register, to be included in the Commissioning Work Package. (Ref *SPG 0711.7* and appended to this procedure)

For each person, the Permit to Work register will record the person's name, Rail Safety Worker Certificate number, Date of Certificate of Competency and the serial numbers of Work Instructions issued to the individual.

5 Maintenance of Permit to Work records

It is the responsibility of the supervisor to preserve a copy of each Permit to Work issued for maintenance or construction activities. Copies of Permits to Work issued shall be stored in a form that is accessible for inspection.

6 Duties of Permit To Work Holder

The person issued the Permit to Work shall:

- Work in accordance with the Permit to Work,
- Take responsibility for completing their work to the required standard per RailCorp specifications and standards, and
- Keep a copy, in their logbook, of all Permits to Work forms that have been issued.

7 Breach of Permit To Work Conditions

The supervisor must keep a record of any incidents as a result of the permit holder completing the work or work undertaken without a valid Permit to Work and notify the Principal Engineer Signal Assurance.

8 Validity of Permit to Work

A Permit to Work will remain valid for the duration of the activity, project or role for which it has been issued, subject to there being no changes to the Certificate of Competency and Scope of Work to which the Permit to Work applies.

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A new Permit to Work will be required whenever the holder is issued with a new Certificate of Competency.

A new Permit to Work will be required when changes to the infrastructure or work activities result in changes to the Scope of Work.

An individual must hold a valid Permit to Work for any rail safety work being performed, but may hold more than one concurrent Permit to Work when engaged in differing types of activity; e.g. a maintenance signal electrician working on a major commissioning will hold one Permit to Work covering their day-to-day maintenance role, and a separate Permit to Work covering the commissioning works to which they are assigned.

Note: For guidance – Holding a maintenance Permit to Work is not sufficient to perform major renewals or project works even in the same maintenance area.

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Appendix A Signalling Permit to Work SF 1419/A

Signal Engineering
SF 1419/A

Permit to Work

Transport NSW RailCorp

_____
(print name)

This permit is issued in accordance with RailCorp procedure, TMG A1419 "Authority to Work on RailCorp Signalling Infrastructure – Permit to Work".

Scope of Work / Activity	**Area** **Role**
Rail Safety Worker Certificate No. _____	Listed in TMG A1415 version no. _____ Date of Certificate of Competency _____/_____/_____

Restrictions & Conditions
(use NIL for unrestricted)

Approved By _____ *(signature)* Print Name _____ Date _____/_____/_____	Accepted By _____ *(signature)* Date _____/_____/_____

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Instructions for use

SF 1419/A

The table below provides some site specific factors to consider when comparing a person's current competence for different types of equipment and systems to a particular area of deployment. Tick the boxes that apply.

Checklist of Site Specific Factors that may affect Operational Signalling or Local Procedures			
☐ Tripped ELD's or Earth Leakages	☐ VIR Wiring	☐ Accuracy of existing Documentation	☐ Currency of required Competencies
☐ Traction Return	☐ Obsolescence Equipment Issues	☐ Numerous IMC(yellow) CB's	☐ Equipment Booked O/O/O
☐ Exposed Terminals	☐ Degraded Signalling Equipment	☐ Insulation Test Records	☐
☐ Difficult to Access Signalling equipment	☐ Management of Signal Failures	☐ Temporary Wire Register	☐
☐ Frequency of Train Services	☐ Seldom Used Lines	☐ Contaminated Rail Register	☐
☐ Shelf Relays	☐	☐ Signal Engineering Instructions	☐
☐ Other Works in the same area	☐	☐ Local Engineering Instructions	☐
☐	☐	☐	☐

Guidance Notes

Items that are described in the Restrictions and Conditions section on the front of the Permit to Work form may be managed by:

- Provision of additional staff to help resolve issues that require prompt attention and/or
- Closer supervision of the work in a known location with low integrity. Eg. VIR wiring and shelf relays and/or
- Allocation of specific staff able to manage the listed conditions and/or limit work to specific times based on the Site Integrity Agreement

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Appendix B Example of Register for Use at Commissioning

Name	Rail Safety Worker Certificate Number (Gold Card)	Date of Certificate of Competency	Team Number	Work Instruction Number(s)	Notes

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