

# Network Rules and Network Procedures Training Standard

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# Contents

Contents.....	3
<b>Introduction .....</b>	<b>9</b>
Overview .....	9
Developing training resources .....	12
<b>Training and assessment</b> .....	15
The assessment process .....	16
<b>Network Rules Competency Matrix .....</b>	<b>19</b>
<b>Network Procedures and Forms Competency Matrix .....</b>	<b>23</b>
<b>C101 Work under supervision .....</b>	<b>28</b>
UNIT NGEC 101 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when working under supervision.....	28
UNIT NWTC 101 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when working under supervision. ....	29
Variables .....	29
Key competency levels.....	29
<b>C102 Operate under track protection rules Level 1 .....</b>	<b>30</b>
UNIT NGEC 102 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when operating under track protection rules Level 1.....	30
UNIT NWTC 102 This unit describes the competencies competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when operating under track protection rules Level 1.....	31
Variables .....	32
Key competency levels.....	33
<b>C103 Operate under track protection rules Level 2 .....</b>	<b>34</b>
UNIT NGEC 103 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedure when operating under track protection rules Level 2.....	34
UNIT NWTC 103 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when operating under track protection rules Level 2.....	35
UNIT NSYC 103 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when operating under track protection rules Level 2. ....	36
UNIT NSGC 103 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when operating under track protection rules Level 2. ....	37

Variables .....	37
Key competency levels .....	37
<b>C104 Provide customer service in the Rail Corridor .....</b>	<b>38</b>
UNIT NGEC 104 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when providing customer service in the Rail Corridor.....	38
UNIT NWTC 104 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when providing customer service in the Rail Corridor.....	39
UNIT NTRC 104 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when providing customer service in the Rail Corridor.....	41
Variables .....	41
Key competency levels .....	42
<b>C105 Control rail traffic movements Level 1 .....</b>	<b>43</b>
UNIT NGEC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when controlling rail traffic movements Level 1.....	43
UNIT NWTC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when controlling rail traffic movements Level 1.....	46
UNIT NTRC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when controlling rail traffic movements Level 1.....	48
UNIT NSYC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when controlling rail traffic movements Level 1.....	50
UNIT NSGC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when controlling rail traffic movements Level 1.....	53
Variables .....	55
Key competency levels .....	56
<b>C106 Control rail traffic movements Level 2 .....</b>	<b>57</b>
UNIT NGEC 106 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when controlling rail traffic movements Level 2.....	57
UNIT NWTC 106 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when controlling rail traffic movements Level 2.....	60

UNIT NTRC 106	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when controlling rail traffic movements Level 2.....	62
UNIT NSYC 106	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when controlling rail traffic movements Level 2.....	65
UNIT NSGC 106	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when controlling rail traffic movements Level 2. ....	67
Variables .....		69
Key competency levels.....		69
<b>C107 Perform rail operations Level 1 .....</b>		<b>70</b>
UNIT NGEC 107	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing non-driving rail operations Level 1.....	70
UNIT NTRC 107	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing non-driving rail operations Level 1. ....	72
Variables .....		72
Key competency levels.....		73
<b>C108 Perform rail operations Level 2 .....</b>		<b>74</b>
UNIT NGEC 108	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing rail operations Level 2.....	74
UNIT NWTC 108	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when performing rail operations Level 2. ....	74
UNIT NTRC 108	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing rail operations Level 2. ....	76
UNIT NSGC 108	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when performing rail operations Level 2. ....	78
Variables .....		81
Key competency levels.....		81
<b>C109 Perform rail operations Level 3 .....</b>		<b>82</b>
UNIT NGEC 109	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing rail operations Level 3.....	82
UNIT NWTC 109	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when performing rail operations Level 3. ....	82

UNIT NTRC 109	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing rail operations Level 3.....	83
UNIT NSYC 109	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when performing rail operations Level 3.....	85
UNIT NSGC 109	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when performing rail operations Level 3.....	87
Variables .....		87
Key competency levels.....		88
<b>C110 Perform rail operations Level 4 .....</b>		<b>89</b>
UNIT NGEC 110	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing rail operations Level 4.....	89
UNIT NTRC 110	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing rail operations Level 4.....	89
Variables .....		90
Key competency levels.....		91
<b>C111 Conduct shunting and marshalling operations .....</b>		<b>92</b>
UNIT NGEC 111	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when shunting and marshalling.....	92
UNIT NWTC 111	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when shunting and marshalling.....	94
UNIT NTRC 111	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when shunting and marshalling.....	95
UNIT NSYC 111	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when shunting and marshalling.....	97
UNIT NSGC 111	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when shunting and marshalling.....	98
Variables .....		100
Key competency levels.....		100
<b>C112 Coordinate and manage track protection .....</b>		<b>101</b>
UNIT NGEC 112	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when coordinating and managing track protection.....	101



UNIT NWTC 112	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when coordinating and managing track protection. ....	103
UNIT NTRC 112	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when coordinating and managing track protection. ....	103
UNIT NSGC 112	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when coordinating and managing track protection. ....	104
<b>C112A</b>	<b>Implement Lookout Working .....</b>	<b>105</b>
UNIT NWTC 112A	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing Lookout Working. ....	105
<b>C112B</b>	<b>Implement ASB.....</b>	<b>107</b>
UNIT NWTC 112B	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing Absolute Signal Blocking (ASB).....	107
<b>C112C</b>	<b>Implement TOA .....</b>	<b>109</b>
UNIT NGEC 112C	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when implementing TOA working. ....	109
UNIT NWTC 112C	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing TOA working. ....	110
UNIT NTRC 112C	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when implementing TOA working. ....	111
UNIT NSYC 112C	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when implementing TOA working. ....	112
<b>C112D</b>	<b>Implement TWA .....</b>	<b>114</b>
UNIT NGEC 112D	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when implementing TWA working. ....	114
UNIT NWTC 112D	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing TWA working. ....	115
<b>C112E</b>	<b>Implement LPA .....</b>	<b>118</b>
UNIT NGEC 112E	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when implementing LPA working. ....	118
UNIT NWTC 112E	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing LPA working. ....	119

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UNIT NSYC 112E	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when implementing LPA working. ....	120
<b>C112F Operate Automatic Track Warning Systems .....</b>		<b>122</b>
UNIT NWTC 112F	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when operating Automatic Track Warning Systems .....	122
Variables .....		123
<b>C112G Signal key switches .....</b>		<b>124</b>
UNIT NWTC 112G	This unit describes the competence, (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when using signal key switches.....	124
Variables .....		125
Key competency levels .....		126
<b>C113 Perform handsignalling at level crossings .....</b>		<b>127</b>
UNIT NGEC 113	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when handsignalling at level crossings.....	127
UNIT NWTC 113	This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when handsignalling at level crossings.	128
Variables .....		129
Key competency levels .....		129

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# Introduction

## Overview

The objective of this Training Standard is to establish quality benchmarks for the training and assessment of people working within the Sydney Trains Network (Network). To achieve consistency of outcomes across occupational sectors, performance criteria are defined within the range of Safeworking activities associated with service delivery on or near Sydney/NSW Trains Infrastructure (Infrastructure). At the completion of a training and assessment process, all people working within the Network must be able to adopt and fully comply with the Network Rules and Network Procedures to ensure safety when carrying out work or other activities.

As the Training Standard is associated with Safeworking activities, enterprises can package together units of competency to meet their operational requirements. Training providers can develop flexible training programs to meet client needs while maintaining the core integrity of the standard of assessment outcomes.

The Training Standard is to be used as a guide for training resource development and training delivery, and to define the minimum acceptable standard of competence to be achieved at the end of a Safeworking training program.

## Content

This Training Standard:

- Describes the safeworking skills, knowledge, values and attitudes (competence) required to work on or near rail infrastructure
- provides performance criteria to be used for assessment based on safety risk
- is designed to allow bundling of units of competency to cover the full range of Safeworking activities performed by a rail worker
- can be used for the assessment of new or existing employees to identify existing competence and training requirements.

***This document is neither a curriculum document nor a training program.***

Each unit of competency describes a broad area of competence and consists of:

- elements that identify and describe actions or outcomes that are observable
- a range of variables that specify the contexts and conditions in which the elements could be performed and assessed
- key competencies that underpin all work.

## Safeworking activities

Training and assessment resources have been developed for the following Safeworking activities:

- working under supervision
- providing customer service in the Rail Corridor
- operating under track protection rules (Levels 1 and 2)
- controlling rail traffic movements (Levels 1 and 2)
- performing rail operations (Levels 1 to 4)
- conducting shunting and marshalling operations
- coordinating and managing track protection
- perform handsignalling at a level crossing.

The required learning outcomes are documented for each of these Safeworking activities.

Different sectors of the rail industry may use different terms to describe a person's job, but the workplace activity may be essentially the same. For example, a person who needs to coordinate and manage track protection may be a:

- track/electrical/signal maintainer
- track installer
- rolling stock maintainer
- Customer Service employee
- Driver
- Track Vehicle Operator.

The process of designing training will need to include a range of stakeholders so that Safeworking activities are selected for a role that meet the employer's operational requirements and ensure that the safety of the network is fully risk assessed in the context of the Safeworking activities selected.

This process should always consider industry/national safeworking competency to support mutual recognition where appropriate.

## Description of Safeworking activities

The following table gives a brief description of the tasks that might be performed in each of the work activities.

Workplace activity	Tasks
Work under supervision	<ul style="list-style-type: none"> <li>• Work and walk safely in the Rail Corridor under supervision</li> <li>• Give and interpret STOP, DANGER and ALL CLEAR handsignals</li> </ul>
Operate under track protection rules Level 1	<ul style="list-style-type: none"> <li>• Work and walk safely in the Rail Corridor</li> <li>• Give and interpret handsignals to control rail traffic movements</li> <li>• Act as a Lookout</li> </ul>
Operate under track protection rules Level 2	<p>As for Level 1, plus (as applicable):</p> <ul style="list-style-type: none"> <li>• Give handsignals at level crossings</li> <li>• Control the passage of rail traffic at a signal at STOP</li> <li>• Manage Type F level crossings</li> <li>• Control rail traffic movement into/from the limits of pilot staff working or CAN working</li> </ul>

Workplace activity	Tasks
Provide customer service in the Rail Corridor	<ul style="list-style-type: none"> <li>• Work and walk safely in the Rail Corridor</li> <li>• Give and interpret STOP, DANGER and ALL CLEAR handsignals</li> <li>• Act as a Lookout</li> <li>• Use the Lookout Working method of worksite protection</li> <li>• Use the ASB method of worksite protection</li> </ul>
Control rail traffic movements Level 1	<ul style="list-style-type: none"> <li>• Work and walk safely in the Rail Corridor</li> <li>• Give and interpret handsignals to control rail traffic movements</li> <li>• Authorise/implement track protection authorities, as appropriate</li> <li>• Perform the Safeworking duties of a Signaller</li> <li>• Follow the correct procedures for controlling rail traffic movements according to relevant systems of Safeworking</li> </ul>
Control rail traffic movements Level 2	<ul style="list-style-type: none"> <li>• Work and walk safely in the Rail Corridor</li> <li>• Authorise the implementation of track protection, as required</li> <li>• Respond correctly to control rail traffic movements if there is an incident or equipment failure, or during equipment testing</li> <li>• Perform the Safeworking duties of a Network Controller</li> <li>• Follow the correct procedures for controlling rail traffic movements according to relevant systems of Safeworking</li> </ul>
Perform rail operations Level 1	<ul style="list-style-type: none"> <li>• Work and walk safely in the Rail Corridor</li> <li>• Give and interpret handsignals to control rail traffic movements</li> <li>• Protect trains, if required</li> <li>• Operate non-interlocked points</li> </ul>
Perform rail operations Level 2	<p>As for Level 1, plus (as applicable):</p> <ul style="list-style-type: none"> <li>• Operate a track vehicle</li> <li>• Identify, interpret and respond correctly to signs, signals and indicators</li> <li>• Obtain the staff as required by the system of Safeworking</li> </ul>
Perform rail operations Level 3	<p>As for Levels 1 and 2 plus (as applicable):</p> <ul style="list-style-type: none"> <li>• Ensure that the correct procedure for the systems of Safeworking are followed during rail vehicle operations</li> <li>• Ensure that trains are fit to travel in the Network, and take appropriate action if equipment or vehicles are defective</li> </ul>
Perform rail operations Level 4	<p>As for Levels 1, 2 and 3 plus (as applicable):</p> <ul style="list-style-type: none"> <li>• Operate a train</li> <li>• Deal with defective equipment, defective vehicles and incidents en route</li> </ul>

Workplace activity	Tasks
Conduct shunting and marshalling operations	<ul style="list-style-type: none"> <li>Control and ensure the safety of shunting and marshalling movements</li> <li>Apply the systems of Safeworking rules and procedures as they apply to shunting and marshalling</li> </ul>
Operate Automatic Track Warning Systems	<ul style="list-style-type: none"> <li>install, test and operate an Automatic Track Warning System</li> </ul>
Coordinate and manage track protection	<ul style="list-style-type: none"> <li>Fulfil the duties of a Protection Officer (plus implement Lookout Working, ASB, TOA, TWA and/or LPA as applicable and certified competent to do so)</li> </ul>
Perform handsignalling at level crossings	<ul style="list-style-type: none"> <li>Walk safely in the Danger Zone</li> <li>Test the operation of Type F level crossings</li> <li>Manually operate Type F level crossings</li> </ul>

***It is extremely important that the activities performed in the workplace by rail workers are analysed to ensure that ALL relevant performance criteria are included in a training and competency assessment program. Rail workers must be assessed as competent to perform all required Safeworking duties BEFORE being employed to do so.***

## Developing training resources

### Performance criteria

Performance criteria are documented for each Safeworking activity. Performance Criteria are evaluative statements, which specify what is to be assessed and the required level of performance. They detail the activities, skills, knowledge, values and attitudes that provide evidence of competent performance of each element.

### Safeworking activity/Network Rule and Network Procedure matrices

A map of Network Rules and Network Procedures mapped against Safeworking activities is included in this document. This gives an overview of the rules and procedures that relate to Safeworking activities performed in the Network.

If a rule or procedure is identified by a 3 as relating to an activity, all or part of that rule must be included in the training and assessment process. Relevant content from the rule or procedure can be identified by referring to the performance criteria for that rule or procedure.

### Variables

It is a required minimum to train rail industry employees in the variables that **could** reasonably be expected to impact on the performance of their duties in their current workplace.

### Related Competencies

The units and elements of competency in this document relate **only** to the Safeworking activities. Competence, qualifications, skills and knowledge that relate to other aspects of a workplace function are not included in these standards, such as, to drive a train to operational requirements involves units and elements of competence other than Safeworking.

## Operator Specific Procedures (OSPs)

Operator specific procedures form an integral part of the RailSafe system and must be included in the training and assessment content and resources.

### Key competencies

Key competencies explain the level at which generic employability competencies should be evident in performance. They are provided in this document to give general guidance for the purposes of assessment design.

Training delivery strategies, learning resources and assessment methods and materials must not require higher performance levels of the key competencies than those documented for the unit of competence, or than those needed to perform the job safely.

Key competency	Description
Collect, analyse and organise information	The capacity to locate, sift and sort information in order to select what is required, and present it in a useful way. The ability to evaluate both the information itself and the sources and methods used to obtain it.
Communicate ideas and information	The capacity to communicate effectively with others using the range of spoken, written, graphic and other non-verbal means of expression.
Plan and organise activities	The capacity to plan and organise one's own work activities including making good use of time and resources, sorting out priorities, and monitoring one's own performance.
Work with others and in teams	The capacity to interact effectively with other people on both a one-to-one basis and in team groups, including understanding and responding to the needs of a client, and working effectively as a member of a team to achieve a shared goal.
Use mathematical ideas and techniques	The capacity to use mathematical ideas (such as number and space) and techniques (such as approximation and estimation) for practical purposes.
Solve problems	The capacity to apply problem-solving strategies in purposeful ways, both in situations where the problem and the desired solution are clearly evident, and in situations requiring critical thinking and a creative approach to achieve an outcome.
Use technology	The capacity to apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principles needed to explore and adapt systems.

The following table defines the three levels of performance for each key competency.

Key competency	Performance Level 1	Performance Level 2	Performance Level 3
Collect, analyse and organise information	Access and record – single source	Access, select and record – more than one source	Access, evaluate and organise – range of sources
Communicate ideas and information	Simple – familiar setting	Complex – particular context	Complex
Plan and organise activities	Under supervision	With guidance	Independently initiate and evaluate complex activities
Work with others and in teams	Familiar activities	Help formulate and achieve goals	Collaborate in complex activities
Use mathematical ideas and techniques	Simple tasks	Some context appropriate complex tasks	Evaluate and adapt as appropriate for task
Solve problems	Routine – minimal supervision Exploratory – close supervision	Routine – independently Exploratory – with guidance	Complex problems Implement systematic approach: explain processes
Use technology	Reproduce or present basic product or service	Construct, organise or operate products or services	Design or tailor products or services

## Training methodology

Training resources must be designed to facilitate the achievement of competence in the workplace. To this end, it is desirable to relate the information in the Network Rules and Network Procedures as closely as possible to the activities performed in the learner's workplace. Explanations, examples and language used should be referenced to workplace scenarios. Training on the job should be provided, where possible.

## Recognition of prior learning (RPL)

Recognition of prior learning (RPL) means recognition of competencies acquired through previous training, work or life experience, which may be used to grant status or credit in a subject or unit of competence. The evidence must take the form of certification and/or references from past employers.

In order to grant RPL, the assessor must be confident that the candidate is competent when assessed against the criteria in this Training Standard. Typically candidates presenting for RPL will undertake targeted refresher training (often of much less duration than those seeking to demonstrate competency for the first time) before undertaking assessment, or they may wish to complete a challenge assessment whereby they can demonstrate their competence to the assessor.

The assessor must ensure that:

- the evidence is authentic, valid, reliable, and sufficient
- the person has been assessed as competent with variables relevant to the current workplace environment
- the person has been assessed as competent to the documented standard in all units of competence relevant to their workplace activities.

## Transport logistics industry (TLI) training package

Many of the units of competence in the TLI rail -specific training packages have a Safeworking component, or have relevant Safeworking rules and procedures as required knowledge, skills, values and attitudes for a unit of competency. If a rail worker is working towards an Australian Qualifications Framework (AQF) certificate in these units of competency as they apply in the Network, then they must achieve the required learning outcomes in the associated unit of competency in this standard.

**Regardless of the training content delivered, all rail workers must be ASSESSED as competent in ALL applicable elements of competence to the required standard BEFORE undertaking work in the Network.**

## Training and assessment

### Training organisation responsibilities

Organisations engaged in the training and assessment of rail workers in the Network must be able to demonstrate that they are a Registered Training Organisation (RTO) with scope of registration that includes relevant units of competence, skillsets and/or qualifications from one or more of the following Transport and Logistics Industry (TLI) training package:

- rail infrastructure
- rail operations
- track protection.

The RTO is responsible for:

- ensuring that the assessments are conducted in accordance with policies and standards
- ensuring that the training and assessment is conducted by a person who is qualified and technically competent at least to the level to which the training/assessment is being undertaken
- ensuring that the relevant performance criteria are used as the benchmark for competency assessment
- providing quality assurance mechanisms to ensure that the assessment is fair, reliable, valid and provides for consistent outcomes
- ensuring that assessments are conducted in a timely manner
- issuing a statement of attainment (as per the Australian Qualifications Framework requirements) and recommending certification and recertification
- maintaining, storing and archiving records of all assessments undertaken
- instituting a reporting process for assessment outcomes
- providing access to records in a secure and efficient manner.

### Who can train?

**Training must be delivered by a person who is technically competent to at least the level of the training being conducted, and has units of competency from the TAE Training and Education training package relating to each of the following:**

- Providing work skill instruction
- Facilitating vocational training
- Facilitating workplace-based learning



## Who can assess?

**Assessments** must be conducted by a person who has the relevant vocational competencies, at least to the level being assessed, and has units of competency from the TAE Training and Education training package relating to each of the following:

- Providing work skill instruction
- Assessing competence

## Awarding a national unit of competency or an initial Safeworking Certification

If the training or assessment will result in awarding a nationally recognised unit of competency or an initial Safeworking Certification<sup>1,2</sup>, the training and/or assessment must be performed by a person holding Certificate IV in Training and Assessment.

## The assessment process

The assessment of a person's ability to meet the required performance criteria is central to the process of implementing the rules. Assessment must be valid, reliable, fair and consistent across the industry to ensure that all rail industry employees are competent to apply the rules in the workplace correctly, consistently and in all conditions.

A person can only be assessed as competent when the assessor has acquired sufficient evidence to be certain that all performance criteria can be met.

## Steps in the assessment process

Step	Procedure
1. Prepare the learner	<p>Explain the assessment process.</p> <p>Give the learner a copy of the standards that they must demonstrate.</p> <p>Make sure that the learner understands the requirements for successful assessment.</p>
2. Develop the assessment tools	<p>Develop appropriate written/oral assessments, checklists, etc as required for off and on-the-job assessment.</p> <p>Make sure that the prescribed minimum training content is included.</p>
3. Conduct the assessment	<p>Organise a suitable assessment environment. Make sure that the safety aspects of conducting the assessment in this environment have been considered.</p> <p>Administer the assessment and make a judgment on whether competence to the required standard has been demonstrated.</p>
4. Provide feedback	<p>Give and seek feedback from the learner concerning the assessment process and outcome.</p>
5. Record and report results	<p>Record the assessment outcomes on a record sheet. Make sure that the variables/conditions that applied to the assessment are recorded.</p> <p>Give copies of completed record sheets to the person assessed and the employer.</p> <p>Recommend certification or recertification based on the assessment outcomes.</p>
6. Evaluate the assessment process	<p>Review the assessment process by seeking feedback from those involved. If necessary, modify the process for future implementation, ensuring that required performance criteria are met.</p>

<sup>1</sup> Safeworking Certifications listed in the Network Rules and Network Procedures Certification Standard

<sup>2</sup> Does not apply to recertification or performance-based assessments

## **Workplace assessment activities**

To gain evidence of competence, assessors must observe the performance of tasks and procedures relevant to the learner's workplace activities. This is done by observing the learner in real or simulated workplace environments. If observing performance in the workplace, ensure that there is no safety risk to people or equipment.

An assessor should vary the activities to suit the workplace environment or the learner, but all required performance criteria for Safeworking activities conducted must be met before a rail worker can be deemed competent. The assessor should also ask enough questions during the observation to be confident that the learner will be able to apply the competence in other relevant situations and contexts.

## **Knowledge and performance questions**

An assessor can gain evidence of a learner's competence by observing performance, and asking questions about the performance observed and the required knowledge that underpins the performance.

Assessment questions can be used:

- to check knowledge and skills off the job
- to check if the learner is able to apply the knowledge and understanding of procedures and regulations across a range of situations
- to extend upon observation of performance by asking the learner what they would do in situations that cannot be easily or directly observed (eg emergencies, varying conditions).
- The questions may be asked:
  - as part of an off-the-job training session
  - as part of a written or oral training assessment
  - while observing on-the-job performance (consider safety aspects when questioning on the job)
  - more than once.

A rail worker must be able to answer questions to demonstrate knowledge relating to the required performance criteria for all the Safeworking activities they perform in the workplace.

## **Recognition of competence**

If a person is assessed as competent to perform their Safeworking activities according to the Network Rules, the assessor should recommend that the employer certify or re-certify the person. Certification documentation must specify the work functions the person has been assessed as competent to perform.

## **If workplace activities change**

If the environment in which a person performs their Safeworking activities changes, or if the duties performed change, the person must be assessed as competent to the required standard in the additional competencies required to perform the new role, in accordance with Network Rules and Network Procedures.

For example, if a track worker is required to operate track vehicles as an additional workplace activity, they must be assessed as competent in the Network Rules for travelling and working a track vehicle, before performing this task.

An assessment report must be completed to document the additional competence attained. A record of training and assessment must be maintained in an appropriate secure learning management system. Where assessments are conducted using digital technologies such as on-line, training and assessment records must meet those standards outlined by ASQA.

## **Re-assessment**

Workers performing safety-related work should have the recognised qualification to do so, and the period of re-qualification specified. The Network Rules and Network Procedures Certification Standard states that all workers performing Safeworking activities must be re-assessed as competent within a period not exceeding **two years**.

To re-assess a worker as competent to perform their workplace duties, the assessment process outlined in this document must be repeated within the specified time frame. The re-assessment is successful if the person is able to meet ALL specified criteria for the duties they are performing.

If re-assessment is not successful, action must be taken to assist the worker to regain competence and be assessed as competent before they can resume duties.

pre-release

# Network Rules Competency Matrix

	NGE 200	NGE 202	NGE 204	NGE 206	NGE 208	NGE 210	NGE 212	NGE 214	NGE 216	NGE 218	NGE 220	NGE 222	NGE 224	NGE 226	NGE 228	NGE 230	NGE 232	NGE 234	NGE 236	NGE 238	
	Walking in the Danger Zone	Handsignals	Network communications	Reporting and responding to a Condition Affecting the Network (CAN)	Responding to a major incident	Speed restrictions during very hot weather (WOLO)	Network information publications	Network Incident Notice (NIN)	Level crossings	Type F level crossing management	Unreliable track-circuit operation	Working around electrical infrastructure	Planned removal of 1500V supply	Planned removal of 1500V supply in EVMCs	Unplanned removal of the 1500V supply	Communications equipment	Responsibilities of Train Crews and track vehicle crews	Responsibilities of Signallers	Responsibilities of Network Controllers	Responsibilities of Protection Officers	
C101	Work under supervision	✓	✓									✓									
C102	Operate under track protection rules Level 1	✓	✓	✓	✓		✓					✓				✓					
C103	Operate under track protection rules Level 2								✓	✓											
C104	Provide customer service in the Rail Corridor	✓	✓	✓	✓		✓					✓				✓					
C105	Control rail traffic movements Level 1	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C106	Control rail traffic movements Level 2	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		
C107	Perform rail operations Level 1	✓	✓	✓			✓		✓	✓		✓				✓	✓				
C108	Perform rail operations Level 2	✓		✓		✓					✓										
C109	Perform rail operations Level 3				✓								✓	✓							
C110	Perform rail operations Level 4			✓				✓													
C111	Conduct shunting and marshalling operations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓					
C112	Coordinate and manage track protection	✓	✓	✓	✓	✓	✓	✓	✓			✓				✓					✓
C112A	Implement Lookout Working																				
C112B	Implement ASB																				
C112C	Implement TOA								✓												✓
C112D	Implement TWA		✓						✓						✓						
C112E	Implement LPA								✓												
C112F	Operate Automatic Track Warning Systems																				
C112G	Use signal key switches																				
C113	Perform handsignalling at level crossings	✓		✓					✓	✓		✓									

Network Rules and Network Procedures Training Standard



		NWT 300	NWT 302	NWT 304	NWT 306	NWT 308	NWT 310	NWT 312	NWT 314	NWT 316	NWT 318	NWT 320	NWT 322
		Planning work in the Rail Corridor	Local Possession Authority	Track Occupancy Authority	Track Work Authority	Absolute Signal Blocking	Lookout Working	Infrastructure Booking Authority	Work trains	Track vehicles	Work that affects traction return currents or track-circuits	Signal Key Switch Blocking	Work that affects Automatic Train Protection trackside equipment
C101	Work under supervision	✓											
C102	Operate under track protection rules Level 1	✓			✓		✓						
C103	Operate under track protection rules Level 2				✓								
C104	Provide customer service in the Rail	✓				✓	✓						
C105	Control rail traffic movements Level 1	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
C106	Control rail traffic movements Level 2	✓	✓	✓	✓	✓	✓	✓	✓	✓			
C107	Perform rail operations Level 1												
C108	Perform rail operations Level 2	✓	✓	✓	✓				✓	✓			
C109	Perform rail operations Level 3								✓				
C110	Perform rail operations Level 4	✓	✓	✓	✓				✓	✓			
C111	Conduct shunting and marshalling operations	✓											
C112	Coordinate and manage track	✓											✓
C112A	Implement Lookout Working	✓					✓						
C112B	Implement ASB	✓				✓							
C112C	Implement TOA	✓		✓				✓	✓	✓	✓		
C112D	Implement TWA	✓			✓			✓			✓		
C112E	Implement LPA	✓	✓					✓	✓		✓		
C112F	Operate Automatic Track Warning Systems												
C112G	Use signal key switches											✓	
C113	Perform handsignalling at level crossings	✓											

Network Rules and Network Procedures Training Standard



		NTR 400	NTR 402	NTR 404	NTR 406	NTR 408	NTR 410	NTR 412	NTR 414	NTR 416	NTR 418	NTR 420	NTR 422	NTR 424	NTR 426	NTR 428	NTR 430	NTR 432	NTR 434
		Protecting rail traffic	Inspecting trains	Using brakes	Using lights	Using whistles	Defective equipment	Defective running gear	Defective vehicles	Disabled trail traffic	Yard limits	Shunting and marshalling	Shunting at intermediate sidings	Propelling rail traffic	Overdue rail traffic	SAFE Notices	Train Operating Conditions (TOC) Waiver	Protecting activities associated with in-service rail traffic	Automatic train protection (ATP) onboard equipment
C101	Work under supervision																		
C102	Operate under track protection rules Level 1																		
C103	Operate under track protection rules Level 2																		
C104	Provide customer service in the Rail	✓																	
C105	Control rail traffic movements Level 1	✓			✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	
C106	Control rail traffic movements Level 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
C107	Perform rail operations Level 1	✓																	
C108	Perform rail operations Level 2					✓					✓	✓						✓	
C109	Perform rail operations Level 3		✓		✓				✓			✓	✓	✓	✓	✓	✓		
C110	Perform rail operations Level 4			✓			✓	✓		✓									✓
C111	Conduct shunting and marshalling operations		✓	✓	✓				✓		✓	✓	✓	✓		✓	✓	✓	
C112	Coordinate and manage track														✓				
C112A	Implement Lookout Working																		
C112B	Implement ASB																		
C112C	Implement TOA										✓								
C112D	Implement TWA																		
C112E	Implement LPA																		
C112F	Operate Automatic Track Warning Systems																		
C112G	Use signal key switches																		
C113	Perform handsignalling at level crossings																		

	NSY 500	NSY 512	NSY 514	NSY 516	NSY 518	NSG 600	NSG 602	NSG 604	NSG 606	NSG 608	NSG 610	NSG 612	NSG 614	NSG 616
	Rail Vehicle Detection System	Manual block working	Special Proceed Authority (SPA)	Pilot staff working	Suspending a system of safeworking	Running signals	Shunting signals	Indicators and signs	Responding to signals and signs	Passing signals at STOP	Passing indicators at STOP	Overrun limit of authority	Blocking facilities	Precautions during signal testing
C101	Work under supervision													
C102	Operate under track protection rules Level 1													
C103	Operate under track protection rules Level 2	✓		✓					✓	✓				
C104	Provide customer service in the Rail													
C105	Control rail traffic movements Level 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C106	Control rail traffic movements Level 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C107	Perform rail operations Level 1													
C108	Perform rail operations Level 2					✓	✓	✓	✓	✓	✓	✓		
C109	Perform rail operations Level 3	✓	✓	✓	✓								✓	
C110	Perform rail operations Level 4													
C111	Conduct shunting and marshalling operations	✓				✓	✓	✓	✓		✓			
C112	Coordinate and manage track								✓	✓				
C112A	Implement Lookout Working													
C112B	Implement ASB													
C112C	Implement TOA			✓										
C112D	Implement TWA							✓						
C112E	Implement LPA		✓		✓									
C112F	Operate Automatic Track Warning Systems													
C112G	Use signal key switches													
C113	Perform handsignalling at level crossings													



# Network Procedures and Forms Competency Matrix

		NPR 000	NPR 002	NPR 003	NPR 004	NPR 005	NPR 007	NPR 008	NPR 010	NPR 011	NPR 012	NPR 013	NPR 014	NPR 015	NPR 017	NPR 018	NPR 700	NPR 701	NPR 702	NPR 703	NPR 704
		General information about Network forms	Using a Track Occupancy authority (TOA) Form	Using an Infrastructure Booking Authority (IBA) Form	Using a Condition Affecting the Network (CAN) Form	Using a Special Proceed Authority (SPA) Form	Using a Pilot Staff Ticket	Using a Pilot Staff Notice (PSN)	Using a Pilot Staff Working Introduction Form	Using a Worksite Warning Form	Using an Unsignalled movement checklist	Using a Temporary Rail Bond Approval Form	Using a Worksite Protection Pre-work Briefing Form	Using a Worksite Protection Plan	Using a Protection Officers Diary	Using an Absolute Signal Blocking (ASB) Form	Using a Local Possession Authority	Using a Track Occupancy Authority	Using a Track Work Authority	Using Absolute Signal Blocking	Using Infrastructure Booking Authorities
C101	Work under supervision																				
C102	Operate under track protection rules Level 1																		✓		
C103	Operate under track protection rules Level 2	✓			✓					✓									✓		
C104	Provide customer service in the Rail	✓											✓	✓	✓					✓	
C105	Control rail traffic movements Level 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
C106	Control rail traffic movements Level 2	✓	✓	✓	✓	✓	✓	✓	✓							✓	✓	✓	✓	✓	✓
C107	Perform rail operations Level 1																				
C108	Perform rail operations Level 2	✓	✓		✓					✓	✓		✓					✓	✓		
C109	Perform rail operations Level 3	✓			✓	✓	✓	✓	✓	✓			✓								
C110	Perform rail operations Level 4												✓								
C111	Conduct shunting and marshalling operations	✓	✓		✓								✓								
C112	Coordinate and manage track	✓											✓	✓	✓						
C112A	Implement Lookout Working	✓													✓						
C112B	Implement ASB	✓													✓					✓	
C112C	Implement TOA	✓	✓	✓								✓		✓			✓				✓
C112D	Implement TWA	✓							✓		✓			✓				✓			✓
C112E	Implement LPA	✓		✓								✓		✓	✓						✓
C112F	Operate Automatic Track Warning Systems																				
C112G	Use signal key switches																				
C113	Perform handsignalling at level crossings																				

		NPR 705	NPR 706	NPR 707	NPR 708	NPR 709	NPR 710	NPR 711	NPR 712	NPR 713	NPR 714	NPR 715	NPR 716	NPR 717	NPR 718	NPR 719	NPR 720	NPR 721	NPR 722	NPR 723	NPR 725	
		Removing 1500V supply	Removing 1500V supply in EVMC	Clipping points	Using X, Y or Z keys	Using railway track signals	Piloting rail traffic	Using Lookouts	Protecting work from rail traffic on adjacent lines	Placing temporary speed signs	Removing 1500V supply in unplanned situations	Protecting Type F level crossings	On-site testing of Type F level crossings	Using emergency roadside warning equipment	Remote monitoring of Type F level crossing warning equipment	Operating groundframes	Protecting rail traffic	Spoken and written communications	Manual block working	Using block posts	Using a large pilot staff	
C101	Work under supervision					✓																
C102	Operate under track protection rules Level 1					✓		✓										✓				
C103	Operate under track protection rules Level 2			✓		✓	✓					✓		✓				✓	✓	✓		
C104	Provide customer service in the Rail			✓		✓		✓	✓								✓	✓				
C105	Control rail traffic movements Level 1	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C106	Control rail traffic movements Level 2	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
C107	Perform rail operations Level 1					✓			✓								✓	✓				
C108	Perform rail operations Level 2			✓	✓	✓		✓	✓	✓		✓				✓	✓	✓	✓			
C109	Perform rail operations Level 3			✓			✓		✓		✓	✓		✓		✓	✓	✓	✓	✓	✓	✓
C110	Perform rail operations Level 4								✓								✓					
C111	Conduct shunting and marshalling operations			✓		✓			✓			✓	✓			✓	✓	✓	✓			
C112	Coordinate and manage track			✓	✓	✓			✓		✓							✓				
C112A	Implement Lookout Working							✓	✓									✓				
C112B	Implement ASB			✓				✓	✓									✓				
C112C	Implement TOA			✓	✓	✓	✓		✓									✓				✓
C112D	Implement TWA			✓	✓	✓			✓	✓	✓							✓				
C112E	Implement LPA			✓	✓	✓	✓		✓									✓				✓
C112F	Operate Automatic Track Warning Systems																					
C112G	Use signal key switches																					
C113	Perform handsignalling at level crossings					✓						✓	✓	✓	✓			✓				

Network Rules and Network Procedures Training Standard



		NPR 726	NPR 727	NPR 728	NPR 737	NPR 738	NPR 739	NPR 740	NPR 742	NPR 743	NPR 744	NPR 745	NPR 746	NPR 747	NPR 748	NPR 750	NPR 751	NPR 752	NPR 753	NPR 754
		Using half pilot staffs	Using crossovers for special working	Operating emergency crossovers	Switching a signal lbox or local control panel in and out	Operating powered interlocking machines	Operating mechanical interlocking machines	Responding to faulty points	Manually operating cranked electric points	Manually operating hand throw electric points	Manually operating electro pneumatic points	Using non-interlocked points	Authorising rail traffic to pass an absolute signal at STOP	Using Drivers time-release buttons	Track vehicle travel	Protecting activities associated with in-service rail traffic	Calculating Minimum Warning Time	Using Automatic Track Warning Systems	Using Signal Key Switch Blocking	Using a signal key switch
C101	Work under supervision																			
C102	Operate under track protection rules Level 1																			
C103	Operate under track protection rules Level 2							✓	✓	✓	✓									
C104	Provide customer service in the Rail																✓			
C105	Control rail traffic movements Level 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
C106	Control rail traffic movements Level 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓			
C107	Perform rail operations Level 1																			
C108	Perform rail operations Level 2							✓	✓	✓	✓	✓	✓		✓	✓				
C109	Perform rail operations Level 3	✓	✓					✓	✓	✓	✓	✓								
C110	Perform rail operations Level 4																			
C111	Conduct shunting and marshalling operations					✓	✓	✓	✓	✓	✓	✓	✓			✓				
C112	Coordinate and manage track																			
C112A	Implement Lookout Working																✓			
C112B	Implement ASB																✓			
C112C	Implement TOA	✓													✓					
C112D	Implement TWA																			
C112E	Implement LPA	✓																		
C112F	Operate Automatic Track Warning Systems																✓	✓		
C112G	Use signal key switches																		✓	✓
C113	Perform handsignalling at level crossings																			

Network Rules and Network Procedures Training Standard



		NRF 000	NRF 002	NRF 003	NRF 004	NRF 005	NRF 007	NRF 008	NRF 010	NRF 011	NRF 012	NRF 013	NRF 014	NRF 015	NRF 015A	NRF 015B	NRF 015C	NRF 015C	NRF 017	NRF 018
		General information about Network forms	Track Occupancy authority (TOA)	Infrastructure Booking Authority (IBA)	Condition Affecting the Network (CAN)	Special Proceed Authority (SPA)	Pilot Staff Ticket	Pilot Staff Notice (PSN)	Pilot Staff Working Introduction	Worksite Warning	Unsignalled movement checklist	Temporary Rail Bond Approval	Worksite Protection Pre-work briefing	Worksite Protection Plan	Worksite Protection Plan	Worksite Protection Plan for Lookout Working	Worksite Protection Plan for ASB	Worksite Protection Plan for TWA and SKS Blocking	Protection Officers Diary	Absolute Signal Blocking (ASB)
C101	Work under supervision																			
C102	Operate under track protection rules Level 1																			
C103	Operate under track protection rules Level 2	✓			✓					✓										
C104	Provide customer service in the Rail	✓											✓	✓		✓	✓		✓	
C105	Control rail traffic movements Level 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									✓
C106	Control rail traffic movements Level 2	✓	✓	✓	✓	✓	✓	✓	✓											
C107	Perform rail operations Level 1																			
C108	Perform rail operations Level 2	✓	✓		✓					✓	✓		✓							
C109	Perform rail operations Level 3	✓			✓	✓	✓	✓	✓	✓			✓							
C110	Perform rail operations Level 4												✓							
C111	Conduct shunting and marshalling operations	✓	✓		✓								✓							
C112	Coordinate and manage track	✓											✓	✓					✓	
C112A	Implement Lookout Working	✓														✓			✓	
C112B	Implement ASB	✓															✓		✓	
C112C	Implement TOA	✓	✓	✓								✓			✓				✓	
C112D	Implement TWA	✓								✓		✓						✓	✓	
C112E	Implement LPA	✓		✓								✓			✓				✓	
C112F	Operate Automatic Track Warning Systems																			
C112G	Use signal key switches															✓		✓		
C113	Perform handsignalling at level crossings																			

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# *Competencies*

pre-release

# C101 Work under supervision

**UNIT NGE 101** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when working under supervision.

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Take appropriate safety precautions when walking in the Danger Zone	(a) identify the Danger Zone and safe places (b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so (c) take appropriate safety precautions when walking in the Danger Zone (d) describe the safety issues to be considered when placing and removing protection	NGE 200 NPR 709
2. Give and interpret handsignals	(a) give and interpret the following handsignals: <ul style="list-style-type: none"> <li>• STOP</li> <li>• DANGER</li> <li>• ALL CLEAR</li> </ul>	NGE 202
3. Take appropriate safety precautions when near electrical infrastructure (if applicable)	(a) identify the main components of electrical infrastructure (b) describe the safety issues to be considered when assessing the risk of working near electrical equipment or wiring (c) identify safe working distances from electrical equipment and wiring (d) take appropriate safety precautions when near 1500V overhead wiring (e) follow (or describe) the correct procedure if: <ul style="list-style-type: none"> <li>• they suspect a problem in the electrical infrastructure</li> <li>• there is a fire near 1500V overhead wiring</li> <li>• there are fallen electrical wires</li> <li>• foreign objects are caught in or touching the overhead wiring</li> </ul>	NGE 222

**UNIT NWTC 101 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when working under supervision.**

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Work safely in the Rail Corridor	(a) identify who is responsible for assessing worksite safety and implementing protection (b) identify when work in the Danger Zone can commence (c) wear approved high-visibility clothing (d) maintain effective communication	NWT 300 NPR 721

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: (a) varying weather conditions (b) varying track geography, including tunnels, cuttings, grades, etc. (c) day or night operation (d) operation near electrical equipment or wiring (e) rail traffic density

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
1	1	1	1	1	1	1



# C102 Operate under track protection rules Level 1

**UNIT NGE 102 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when operating under track protection rules Level 1.**

Element	Performance criteria	Reference
1. Take appropriate safety precautions when walking in the Danger Zone	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) identify the Danger Zone and safe places</li> <li>(b) explain what is meant by 'walking in the Danger Zone', and when it is permissible to do so</li> <li>(c) take appropriate safety precautions when walking in the Danger Zone</li> <li>(d) describe the safety issues to be considered when placing and removing protection</li> </ul>	<p>NGE 200 NPR 709</p>
2. Give and respond to handsignals	<ul style="list-style-type: none"> <li>(a) stand in the correct place to give handsignals</li> <li>(b) move to a safe place when rail traffic approaches</li> <li>(c) give the correct handsignals at the appropriate time, and continue to handsignal as required</li> <li>(d) stop rail traffic at the appropriate time</li> <li>(e) maintain effective communication with the appropriate people</li> <li>(f) give and interpret handsignals correctly</li> <li>(g) obey and acknowledge handsignals at the appropriate time</li> </ul>	<p>NGE 202 NPR 702 NPR 711 NPR 721</p>
3. Use approved communication procedures	<ul style="list-style-type: none"> <li>(a) communicate orally or in written form in a manner that:                             <ul style="list-style-type: none"> <li>• is clear, brief and unambiguous</li> <li>• is relevant to the task at hand</li> <li>• is agreed as to its meaning before being acted upon</li> <li>• uses the 24-hour clock to refer to the time of day</li> <li>• uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers</li> </ul> </li> <li>(b) confirm communication with the sender at the appropriate time</li> <li>(c) act on the communication at the appropriate time</li> <li>(d) test and check communication equipment prior to use</li> <li>(e) follow the correct protocols for:                             <ul style="list-style-type: none"> <li>• emergency communications</li> <li>• spoken communication</li> <li>• written communication</li> </ul> </li> <li>(f) follow the correct procedure to complete and keep Safeworking forms and records</li> </ul>	<p>NGE 204 NPR 721 NPR 000</p>

Element	Performance criteria	Reference
At the end of training the person must be able to:		
4. Report a Condition Affecting the Network (CAN)	(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time	NGE 206 NPR 721
5. Access Network information	(a) identify their responsibilities for reading, updating and responding to Network publications (b) identify the Network publications to which they must have access	NGE 212
6. Take appropriate safety precautions when near electrical infrastructure (if applicable)	(a) identify the main components of electrical infrastructure (b) describe the safety issues to be considered when assessing the risk of working near electrical equipment or wiring (c) identify safe working distances from electrical equipment and wiring (d) take appropriate safety precautions when near 1500V overhead wiring (e) follow (or describe) the correct procedure if: <ul style="list-style-type: none"> <li>• they suspect a problem in the electrical infrastructure</li> <li>• there is a fire near 1500V overhead wiring</li> <li>• there are fallen electrical wires</li> <li>• foreign objects are caught in or touching the overhead wiring</li> </ul>	NGE 222
7. Use spoken communication equipment correctly	(a) identify and use the correct communication system at the appropriate time (b) check the operation of the spoken communication equipment at the appropriate time	NGE 230

**UNIT NWTC 102 This unit describes the competencies competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when operating under track protection rules Level 1.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Work safely in the Rail Corridor	(a) identify who is responsible for assessing worksite safety and implementing protection (b) identify when work in the Danger Zone can commence (c) wear approved high-visibility clothing (d) maintain effective communication	NWT 300 NPR 721

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
2. Perform the duties of a Lookout	(a) follow the correct procedures to perform the duties of a Lookout when working using the Lookout Working method (b) correctly calculate minimum warning time for a specific worksite (c) identify the correct placement of Lookouts (d) establish communication procedures with the Protection Officer prior to commencing duties as a Lookout (e) stand in a safe and appropriate place when performing the duties of a Lookout (f) follow the correct procedure to detect and warn others of the approach of rail traffic (g) move to a safe place when rail traffic approaches (h) signal ALL CLEAR at the appropriate time (i) follow the correct procedure when it is safe for work to resume following the passage of rail traffic	NWT 310 NPR 711
3. Perform the duties of a Handsignaller not at a fixed signal during a TWA	(a) maintain effective communication with Protection Officer (b) identify correct position for inner and outer Handsignaller (c) follow correct procedures when: <ul style="list-style-type: none"> <li>• rail traffic is approaching</li> <li>• managing rail traffic through a worksite</li> </ul>	NWT 306 NPR 702 NPR 709
4. Plan and assess work in the Rail Corridor	(a) identify and analyse risks to determine when worksite protection required	NWT 300 NPR 712

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ol style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc.</li> <li>(c) day or night operation</li> <li>(d) operation near electrical equipment or wiring</li> <li>(e) rail traffic density</li> </ol>
Equipment	Variation in equipment types might include but not be limited to: <ol style="list-style-type: none"> <li>(a) two-way radios, train radios, mobile phones, trackside phones</li> </ol>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	1	1	1	1	1	1

pre-release

# C103 Operate under track protection rules Level 2

**UNIT NGE 103** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedure when operating under track protection rules Level 2.

All elements and standards as for Operate under track protection rules Level 1, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use level crossings	(a) identify the responsibilities of Qualified Workers in charge of level crossings (b) follow the correct procedure if there is missing, damaged or faulty warning equipment or gates at a level crossing (c) identify and describe the different types of level crossings (d) interpret Type F level crossing trackside signs (e) fulfil the duties of a Qualified Worker at a level crossing with manually operated gates (f) authorise the re-opening of gates at attended locations (g) follow the correct procedure if there are open gates at a private level crossing	NGE 216 NPR 715 NPR 717
2. Test and manage Type F level crossings	(a) fulfil the duties of a Qualified Worker in charge of manually operated warning equipment (b) perform the duties of a Handsignaller to protect a level crossing	NGE 218 NPR 715 NPR 716 NPR 717

**UNIT NWTC 103 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when operating under track protection rules Level 2.**

All elements and standards as for Operate under track protection rules Level 1, plus the following:

Element	Performance criteria At the end of training the person must be able to:	Reference
1. Perform the duties of a Handsignaller in a Track Work Authority (TWA) area	(a) maintain effective communication with the Protection Officer and Signaller at the appropriate times (b) identify the correct position for inner and outer Handsignallers to stand when performing their duties to protect a worksite: <ul style="list-style-type: none"> <li>• when signals on the approach side of the worksite are set at STOP</li> <li>• where signals are affected by work on track</li> <li>• in automatic signal areas</li> </ul> (c) follow the correct procedure to perform the duties of a Handsignaller in the above areas and: <ul style="list-style-type: none"> <li>• when rail traffic is approaching a worksite</li> <li>• where there are multiple worksites</li> <li>• where rail traffic can travel on adjacent lines</li> <li>• where there are tonnage signals</li> <li>• when managing the transit of rail traffic through a worksite</li> </ul> (d) communicate with the Signaller at the appropriate time	NWT 306 NPR 702 NPR 011 NRF 011
2. Pilot rail traffic in a Local Possession Authority (LPA) or Track Occupancy Authority area	(a) identify the limits within which rail traffic must be piloted (b) pilot rail traffic (c) identify the authority required for rail traffic to enter or depart the limits of an LPA or TOA	NWT 314 NWT 316 NPR 700 NPR 701 NPR 710
3. Place LPA or TOA worksite protection	(a) Follow the correct procedure to protect worksites within an LPA or TOA by correctly: <ul style="list-style-type: none"> <li>• placing railway track signals</li> <li>• placing protection markers</li> <li>• clipping and locking points</li> </ul>	NWT 302 NPR 700 NWT 304 NPR 701 NPR 709 NPR 707
4. Perform the duties of an Additional Handsignaller not at an affected signal	(a) maintain effective communication with other Handsignallers (b) follow correct procedures when: <ul style="list-style-type: none"> <li>• rail traffic is approaching</li> <li>• managing rail traffic through a worksite</li> </ul>	NWT 306 NPR 702 NPR 709

Element	Performance criteria	Reference
At the end of training the person must be able to:		
5. Perform the duties of a Clearance Handsignaller	(a) maintain effective communication with Protection Officer (b) follow the correct procedure when rail traffic passes complete beyond a clearance location	NWT 306 NPR 702

**UNIT NSYC 103 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when operating under track protection rules Level 2.**

All elements and standards as for Operate under track protection rules Level 1, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Control rail traffic movement into/from occupied blocks	(a) authorise rail traffic entry to a block at the appropriate time (b) define CAN block working (c) follow the correct procedure to record information during CAN block working (d) identify the authority needed by rail traffic to occupy a block under manual block working (e) follow the correct procedures to control entry and exit of rail traffic to/from a block during CAN block working	NSY 512 NPR 709 NPR 721 NPR 722 NPR 723 NPR 724 NPR 004 NRF 004
2. Control rail traffic movement into/from the limits of pilot staff working	(a) identify where Handsignallers are stationed during pilot staff working (b) follow the correct procedure to record the establishment of block posts (c) perform the duties of a Handsignaller at a block post (d) identify when a clearance Handsignaller is required (e) perform the duties of a clearance Handsignaller (f) describe the process for obtaining information about a change of running direction of a pilot staff section	NSY 516 NPR 709 NPR 721 NPR 723 NPR 724



**UNIT NSGC 103 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when operating under track protection rules Level 2.**

All elements and standards as for Operate under track protection rules Level 1, plus the following:

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Follow the correct procedure if a signal is at STOP	(a) follow the correct procedure to control the passage of rail traffic at a signal at STOP (b) respond to faulty points (c) manually operate points, as required	NSG 606 NSG 608 NPR 707 NPR 740 NPR 742 NPR 743 NPR 744

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: (a) varying weather conditions (b) varying track geography, including tunnels, cuttings, grades, etc. (c) day or night operation (d) operation near electrical equipment or wiring (e) rail traffic density
Equipment	Variation in equipment types might include but not be limited to: (a) two-way radios, train radios, mobile phones, trackside phones (b) different types of point motors (c) different types level crossing switches

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	1	1	1	1	1	1

# C104 Provide customer service in the Rail Corridor

**UNIT NGE 104** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when providing customer service in the Rail Corridor.

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Take appropriate safety precautions when walking in the Danger Zone	(a) identify the Danger Zone and safe places (b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so (c) take appropriate safety precautions when walking in the Danger Zone (d) describe the safety issues to be considered when placing and removing protection	NGE 200 NPR 709
2. Give and interpret handsignals	(a) give and interpret the following handsignals: <ul style="list-style-type: none"> <li>• STOP</li> <li>• DANGER</li> <li>• ALL CLEAR</li> </ul>	NGE 202
3. Take appropriate safety precautions when near electrical infrastructure (if applicable)	(a) identify the main components of electrical infrastructure (b) describe the safety issues to be considered when assessing the risk of working near electrical equipment or wiring (c) identify safe working distances from electrical equipment and wiring (d) take appropriate safety precautions when near 1500V overhead wiring (e) follow (or describe) the correct procedure if: <ul style="list-style-type: none"> <li>• they suspect a problem in the electrical infrastructure</li> <li>• there is a fire near 1500V overhead wiring</li> <li>• there are fallen electrical wires</li> <li>• foreign objects are caught in or touching the overhead wiring</li> </ul>	NGE 222

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Use approved communication procedures	(a) communicate orally or in written form in a manner that: <ul style="list-style-type: none"> <li>• is clear, brief and unambiguous</li> <li>• is relevant to the task at hand</li> <li>• is agreed as to its meaning before being acted upon</li> <li>• uses the 24-hour clock to refer to the time of day</li> <li>• uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers</li> </ul> (b) confirm communication with the sender at the appropriate time (c) act on the communication at the appropriate time (d) test and check communication equipment prior to use (e) follow the correct protocols for: <ul style="list-style-type: none"> <li>• emergency communications</li> <li>• spoken communication</li> <li>• written communication</li> </ul> (f) follow the correct procedure to complete and keep Safeworking forms and records	NGE 204 NPR 721 NPR 000
5. Report a Condition Affecting the Network (CAN)	(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time	NGE 206 NPR 721
6. Use spoken communication equipment correctly	(a) identify and use the correct communication system at the appropriate time (b) check the operation of the spoken communication equipment at the appropriate time	NGE 230
7. Access Network information	(a) identify their responsibilities for reading, updating and responding to Network publications (b) identify the Network publications to which they must have access	NGE 212

**UNIT NWTC 104 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when providing customer service in the Rail Corridor.**

Element	Performance criteria At the end of training the person must be able to:	Reference
1. Work safely in the Rail Corridor	(a) identify who is responsible for assessing worksite safety and implementing protection (b) identify when work in the Danger Zone can commence (c) wear approved high-visibility clothing (d) maintain effective communication	NWT 300 NPR 721

Element	Performance criteria	Reference
At the end of training the person must be able to:		
2. Use the Absolute Signal Blocking (ASB) method of work	<ul style="list-style-type: none"> <li>(a) describe the principles of the ASB method</li> <li>(b) identify when ASB can be used as a method for performing work in the Danger Zone</li> <li>(c) follow the correct procedure to identify the location of a worksite when implementing ASB</li> <li>(d) perform the duties of a Protection Officer when work is being done using ASB as a safety measure</li> <li>(e) follow the correct procedure to have rail traffic excluded from a portion of track by setting and keeping signals at STOP</li> <li>(f) correctly compile Worksite Protection Plan (NRF 015C) when implementing ASB</li> <li>(g) communicate with the Signallers at the appropriate time</li> <li>(h) follow the correct procedure to have the portion of track returned to service</li> <li>(i) correctly remove protection and end ASB</li> </ul>	<ul style="list-style-type: none"> <li>NWT 308</li> <li>NPR 703</li> <li>NPR 707</li> <li>NPR 711</li> <li>NPR 712</li> <li>NPR 721</li> <li>NPR 751</li> <li>NPR 014</li> <li>NPR 015</li> <li>NPR 017</li> <li>NRF 014</li> <li>NRF 015C</li> <li>NRF 017</li> </ul>
3. Use the Lookout Working method of work	<ul style="list-style-type: none"> <li>(a) identify when work can be undertaken in the Danger Zone using the Lookout Working method of protection</li> <li>(b) make sure that it is safe to work using the Lookout Working method</li> <li>(c) fulfil the duties and responsibilities of a Protection Officer</li> <li>(d) protect work from rail traffic on adjacent lines</li> <li>(e) move to a safe place when rail traffic approaches</li> <li>(f) decide upon and deploy an appropriate number of Lookouts</li> <li>(g) monitor position of Lookouts and identify any deficiencies</li> <li>(h) perform the duties of a Lookout</li> <li>(i) correctly calculate minimum warning time for a specific worksite</li> <li>(j) correctly compile Worksite Protection Plan (NRF 015B) when implementing Lookout Working</li> </ul>	<ul style="list-style-type: none"> <li>NWT 310</li> <li>NPR 711</li> <li>NPR 712</li> <li>NPR 751</li> <li>NPR 014</li> <li>NPR 015</li> <li>NPR 017</li> <li>NRF 014</li> <li>NRF 015B</li> <li>NRF 017</li> </ul>

**UNIT NTRC 104 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when providing customer service in the Rail Corridor.**

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Protect rail traffic	(a) identify the circumstances in which rail traffic must be protected (b) follow the correct procedure to protect rail traffic if railway track signals cannot be used (c) follow the correct procedure if a line obstruction is reported (d) identify when lines adjacent to stopped rail traffic must be protected (e) follow the correct procedure to protect a delayed rail traffic	NTR 400 NPR 709 NPR 712 NPR 720

**Variables**

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc.</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) rail traffic density</li> </ul>
Equipment	Variation in equipment types might include but not be limited to: <ul style="list-style-type: none"> <li>(a) two-way radios, train radios, mobile phones, trackside phones</li> </ul>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	1	2	2	1	2	1

pre-release

# C105 Control rail traffic movements Level 1

**UNIT NGE 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when controlling rail traffic movements Level 1.**

Element	Performance criteria	Reference
1. Take appropriate safety precautions when walking in the Danger Zone	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) identify the Danger Zone and safe places</li> <li>(b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so</li> <li>(c) take appropriate safety precautions when walking in the Danger Zone</li> <li>(d) describe the safety issues to be considered when placing and removing protection</li> </ul>	<p>NGE 200 NPR 709</p>
2. Use approved communication procedures	<ul style="list-style-type: none"> <li>(a) communicate orally or in written form in a manner that is:                             <ul style="list-style-type: none"> <li>• clear, brief and unambiguous</li> <li>• relevant to the task at hand</li> <li>• agreed as to its meaning before being acted upon</li> <li>• uses the 24-hour clock to refer to the time of day</li> <li>• uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers</li> </ul> </li> <li>(b) confirm communication with the sender at the appropriate time</li> <li>(c) act on the communication at the appropriate time</li> <li>(d) test and check communication equipment prior to use</li> <li>(e) follow the correct protocols for:                             <ul style="list-style-type: none"> <li>• emergency communications</li> <li>• spoken communication</li> <li>• written communication</li> </ul> </li> <li>(f) follow the correct procedure to complete and keep Safeworking forms and records</li> </ul>	<p>NGE 204 NPR 721 NPR 000</p>
3. Report and respond to a Condition Affecting the Network (CAN)	<ul style="list-style-type: none"> <li>(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time</li> <li>(b) use the correct procedure to respond to a reported unsafe condition</li> <li>(c) use the correct procedure to warn rail traffic approaching an area where a CAN has been reported</li> <li>(d) follow the correct procedure to complete and store CAN forms</li> <li>(e) follow the correct procedure to return a line to normal working</li> </ul>	<p>NGE 206 NPR 707 NPR 709 NPR 720 NPR 721 NPR 004 NRF 004</p>

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Respond to a major incident	(a) follow the correct procedure if a major incident is reported (b) follow the correct procedure if the 1500V supply has been affected by an incident or might be a safety hazard (c) report relevant details about a major incident	NGE 208 NPR 714
5. Impose speed restrictions during very hot weather (WOLO)	(a) state when WOLO speed restrictions apply (b) issue a WOLO notice to the appropriate people (c) follow the correct procedure to notify Drivers and track vehicle operators about WOLO restrictions (d) identify speed limits for rail traffic travel during WOLO restrictions (e) follow the correct procedure to record WOLO speed restrictions (f) describe how WOLO speed restrictions are advertised	NGE 210 NPR 721
6. Access Network information	(a) identify their responsibilities for reading, updating and responding to Network publications (b) identify the Network publications to which they must have access	NGE 212
7. Issue a Network Incident Notice (NIN)	(a) identify when a NIN must be issued (b) correctly compile and submit a NIN to the appropriate person in a timely manner	NGE 214
8. Use approved procedures for level crossings	(a) identify and describe the different types of level crossings (b) follow the correct procedure if there is missing, damaged or faulty warning equipment or gates at a level crossing (c) follow the correct procedure to clear signals and authorise the re-opening of gates at attended locations (d) follow the correct procedure if there are open gates at a private level crossing	NGE 216 NPR 715 NPR 716 NPR 717 NPR 718
9. Test and manage Type F level crossings	(a) follow the correct procedure if testing is to be suspended (b) follow the correct procedure to use a level crossing for which testing has been suspended (c) follow the correct procedure to authorise testing (d) follow the correct procedure if a level crossing is faulty or potentially faulty (e) follow the correct procedure if delayed rail traffic is occupying the controlling track circuit of a Type F level crossing (f) follow the correct procedure if all warning equipment at a Type F level crossing cannot be operated (g) follow the correct procedure to resume normal operation of a Type F level crossing	NGE 218 NPR 715 NPR 716 NPR 717 NPR 718
10. Identify and respond to potentially faulty track-circuits	(a) identify when track-circuits may have become potentially unsafe (b) follow the correct procedure if faulty track-circuits are reported	NGE 220 NPR 746



Element	Performance criteria At the end of training the person must be able to:	Reference
11. Ensure that appropriate safety precautions are taken near electrical infrastructure (if applicable)	(a) follow the correct procedure if suspected problems with the electrical infrastructure are reported (b) follow the correct procedure if a fire is reported within or near an electrified corridor (c) identify the components in electrical infrastructure	NGE 222
12. Removal of the 1500V overhead supply (if applicable)	(a) make sure that the correct procedures are followed for a train to travel from a live to an isolated area (b) follow the correct procedure to prevent trains from entering an isolated 1500V overhead wiring section (c) follow the correct procedure to resume normal working when the 1500V overhead supply has been restored (d) record information about the removal of supply (e) follow the correct procedure for the removal of the 1500V supply in areas where Train Registers are not used (if applicable)	NGE 224 NPR 705
13. Control the movement of rail traffic when the 1500V power supply is removed from an EVMC (if applicable)	(a) ensure that the correct procedures are followed for a train to travel from a live to an isolated area (b) follow the correct procedure to prevent trains from entering an isolated 1500V overhead wiring section (c) follow the correct procedure to resume normal working when the overhead supply has been restored	NGE 226 NPR 706
14. Removal of the 1500V power supply in an emergency (if applicable)	(a) follow the correct procedure if an incident that could be life-threatening or affects the 1500V supply is reported (b) follow the correct procedure to prevent trains from entering an isolated 1500V overhead wiring section (c) describe the responsibilities of the Signallers when 1500V supply is removed from/restored to a section	NGE 228 NPR 714
15. Use spoken communication equipment correctly	(a) identify and use the correct communication system at the appropriate time (b) check the operation of the spoken communication equipment at the appropriate time	NGE 230
16. Fulfil the Safeworking responsibilities of a Signaller	(a) identify and perform the Safeworking duties and responsibilities of Signallers	NGE 234

**UNIT NWTC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when controlling rail traffic movements Level 1.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Plan work in the Rail Corridor	(a) identify and describe when each of the methods for conducting work within the Danger Zone is used (b) identify and analyse risks to determine the method of protection required (c) meet specified requirements prior to commencing work on track	NWT 300
2. Manage a Local Possession Authority (LPA)	(a) describe the function and general requirements of an LPA (b) complete relevant documentation (c) identify the rail traffic that is permitted to enter the possession (d) communicate with the Possession Protection Officer at the appropriate times (e) authorise work trains and track vehicles to depart the limits of the LPA at an attended interlocking (f) set signals at STOP and apply blocking facilities to prevent access to the LPA area	NWT 302 NPR 700
3. Manage a Track Occupancy Authority (TOA)	(a) describe the function and general requirements of a TOA (b) identify when a TOA does not give exclusive occupancy (c) define the limits of a TOA (d) issue a TOA at an attended location (e) identify the rail traffic that is permitted to enter the TOA work area (f) set signals to STOP and apply blocking facilities at the appropriate time (g) complete relevant documentation and maintain required written records (h) communicate with the Protection Officer and Signaller at the appropriate times (i) authorise rail traffic associated with the possession to exit the possession area	NWT 304 NPR 701 NPR 002 NRF 002
4. Manage a Track Work Authority (TWA)	(a) describe the function and general requirements of a TWA (b) follow the correct procedure to issue a TWA (c) follow the correct procedure to reduce the number of points of entry to a worksite (d) set signals to STOP and apply blocking facilities at the appropriate time (e) compile and keep appropriate documentation (f) follow the correct procedure to fulfil a TWA	NWT 306 NPR 702 NPR 707 NPR 708 NPR 709

Element	Performance criteria	Reference
At the end of training the person must be able to:		
5. Use the Absolute Signal Blocking (ASB) method of work	(a) identify when ASB can be used as a method for performing work in the Danger Zone (b) follow the correct procedure to confirm the location of a worksite when implementing ASB (c) follow the correct procedure to authorise ASB (d) follow the correct procedure before setting controlled absolute signals at STOP (e) communicate with the Protection Officer at the appropriate time (f) follow the correct procedure to remove blocking facilities or authorise the return of the ESML/EOL key (g) correctly compile Absolute Signal Blocking form (NRF 018)	NWT 308 NPR 703 NPR 711 NPR 712 NPR 721 NPR 751 NPR 018 NRF 018
6. Use the Lookout Working method of work	(a) identify when work can be undertaken in the Danger Zone with Lookouts	NWT 310 NPR 711 NPR 712 NPR 751
7. Authorise Signal Key Switch Blocking (SKS)	(a) identify the type of work that can be undertaken in the Danger Zone using SKS Blocking (b) correctly identify the worksite limits applicable to a signal key switch (c) communicate with the Protection Officer and Handsignaller at the appropriate time (d) follow the correct procedure if the protecting signal fails to display PROCEED after the key has been restored (e) correctly end SKS Blocking	NWT 320 NPR 753 NPR 754
8. Authorise removal of a key from a signal key switch	(a) describe purpose and function a signal key switch box (b) describe how you identify the worksite limits applicable to a signal key switch (c) state when authority can be given to remove key from a signal key switch. (d) communicate with the Protection Officer and Handsignaller at the appropriate time (e) follow the correct procedure if the protecting signal does not display a PROCEED indication when the key is restored	NWT 320 NPR 753 NPR 754
9. Record and notify changes to the Network arising from infrastructure work	(a) compile/interpret the information on an Infrastructure Booking Authority (IBA) (b) follow the correct procedure to acknowledge an IBA and to retain fulfilled and cancelled IBAs	NWT 312 NPR 704 NPR 003 NRF 003

Element	Performance criteria	Reference
At the end of training the person must be able to:		
10. Control rail traffic operation to/ beyond the limits of a TOA or an LPA	(a) identify the authority needed to operate rail traffic within the limits of a TOA or an LPA (b) describe where rail traffic must be piloted (c) authorise work trains to pass signals at STOP at the appropriate times (d) authorise unsignalled movements within yard limits at the appropriate time (e) authorise rail traffic associated with the possession to enter/exit the possession area	NWT 314 NWT 316 NPR 710
11. Manage the travel of track vehicles	(a) identify the authority needed to travel track vehicles in the Network and the conditions of each authority (b) authorise track vehicles to enter or be placed on the running line at the appropriate time (c) follow the correct procedure if the movement of track vehicles travelling as a train has not been advertised (d) communicate at the appropriate times with the certified crew member when track vehicles are travelling as a train (e) describe the procedure for travelling track vehicles under a TOA (f) authorise track vehicles to pass signals at STOP at the appropriate times (g) authorise track vehicles associated with a possession to enter/exit the possession area (h) follow the correct procedure to travel track vehicles within attended yard limits	NWT 304 NWT 316 NPR 701 NPR 748 NPR 002 NRF 002

**UNIT NTRC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when controlling rail traffic movements Level 1.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Respond correctly if rail traffic needs to be protected	(a) identify the circumstances in which rail traffic must be protected (b) follow the correct procedure if a line obstruction is reported (c) identify when lines adjacent to stopped rail traffic must be protected (d) follow the correct procedure to protect delayed rail traffic	NTR 400 NPR 709 NPR 712 NPR 720
2. Respond correctly if defective train lighting is reported	(a) follow the correct procedure if a train's end-of-train marker is reported as missing, defective or not lit	NTR 406

Element	Performance criteria	Reference
At the end of training the person must be able to:		
3. Ensure that the correct train whistle procedures are followed	(a) follow the correct procedure if train or track vehicle crew report a defective whistle en route	NTR 408
4. Deal with disabled rail traffic	(a) follow the correct procedure if rail traffic is reported as disabled (b) follow the correct procedure if rail traffic is reported as having accidentally divided	NTR 416 NPR 712 NPR 720
5. Authorise rail traffic movements within yard limits	(a) identify who authorises rail traffic movements on a running line within yard limits (b) follow the correct procedure to authorise movements within yard limits: <ul style="list-style-type: none"> <li>• if fixed signals are unavailable</li> <li>• that are unsignalled</li> <li>• that involve a wrong running-direction movement</li> <li>• past a home or a home/starting signal at STOP on a bidirectional line</li> </ul> (c) if applicable, identify yard limits in Rail Vehicle Detection (RVD) (d) follow the correct procedure for unsignalled rail traffic movements through an automatic signalling area within consolidated yard limits (e) if applicable, follow the correct procedure to operate groundframes and non-interlocked points	NTR 418 NTR 420 NPR 719 NPR 721 NPR 745 NPR 012 NRF 012
6. Ensure that shunting movements at intermediate sidings are safe	(a) follow the correct procedure for a train to arrive/depart at/from an intermediate siding (b) follow the correct procedure if a train is to be stabled in an intermediate siding	NTR 422
7. Authorise a propelling movement	(a) define a 'propelling movement' (b) identify who is responsible for: <ul style="list-style-type: none"> <li>• controlling propelling movements</li> <li>• directing propelling movements</li> <li>• authorising propelling movements</li> </ul> (c) identify and plan the route and limits of a propelling movement (d) identify the authority needed to conduct a propelling movement: <ul style="list-style-type: none"> <li>• over a level crossing</li> <li>• within yard limits</li> <li>• in a shunting yard</li> <li>• in a section</li> <li>• in the wrong running-direction</li> </ul>	NTR 424 NPR 721

Element	Performance criteria	Reference
At the end of training the person must be able to:		
8. Deal with overdue rail traffic	(a) follow the correct procedure if rail traffic is overdue in a section (b) follow the correct procedure if rail traffic stoppage is or will become extended (c) follow the correct procedure if rail traffic is reported to be disabled	NTR 426 NPR 709 NPR 712 NPR 720
9. Use a SAFE Notice	(a) state the function of a SAFE Notice (b) follow the correct procedure if they receive a SAFE Notice	NTR 428
10. Use a TOC Waiver	(a) state the function of a TOC Waiver (b) follow the correct procedure if they receive a TOC Waiver	NTR 430
11. Authorise protection for activities associated with in-service rail traffic	(a) perform the duties of a Signaller when protecting activities associated with in-service rail traffic (b) identify when activities associated with in-service rail traffic must be protected (c) follow the correct procedure to identify the location of worksite (d) follow the correct procedure to protect activities associated with in-service rail traffic (e) follow the correct procedure before setting controlled absolute signals at STOP (f) communicate with the Driver, Track Vehicle Operator or Train Technician at the appropriate time (g) follow the correct procedure to remove blocking facilities (h) correctly compile Absolute Signal Blocking form (NRF 018)	NTR 432 NPR 721 NPR 750 NPR 018 NRF 018

**UNIT NSYC 105** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when controlling rail traffic movements Level 1.

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use Rail Vehicle Detection (RVD) system of Safeworking (if applicable)	(a) describe the principles of the RVD system of Safeworking (b) follow the correct procedure if a rail vehicle is to enter a block (c) switch a signal box or a local control panel in/out at the appropriate time (d) report and record rail traffic details, as required	NSY 500 NPR 721 NPR 737 NPR 738 NPR 739

Element	Performance criteria	Reference
At the end of training the person must be able to:		
2. Manually maintain blocks between rail traffic movements	(a) describe the principles of manual block working (b) state when basic block working can be used (c) state when CAN block working can be used (d) keep appropriate records of manual block working (e) identify the authority needed for rail traffic to enter and occupy a block under manual block working (f) identify the limits for: <ul style="list-style-type: none"> <li>• basic block working</li> <li>• CAN block working</li> </ul> (g) follow the correct procedure after authorising rail traffic to enter the limits for basic block working (h) identify when signals at STOP can be passed under CAN block working (i) perform the duties of a Signaller controlling entry to a block (j) issue a CAN form (k) follow the correct procedure to record the end of CAN block working	NSY 512 NPR 721 NPR 722 NPR 723 NPR 724 NPR 746 NPR 004 NRF 004
3. Use a Special Proceed Authority (SPA)	(a) describe when a SPA is used (b) describe the information that must be included on a SPA (c) follow the correct procedure to issue a SPA (d) follow the correct procedure if a SPA authorises a movement beyond an attended location or a remote controlled location (e) follow the correct procedure if rail traffic is to pass an absolute signal at STOP (f) state when a SPA can be cancelled or fulfilled (g) state when the end of special working can be authorised (h) follow the correct procedure to return to normal working following special working	NSY 514 NPR 707 NPR 721 NPR 746 NPR 005 NRF 005

Element	Performance criteria	Reference
At the end of training the person must be able to:		
4. Use the pilot staff working method of special working	(a) describe the principles of pilot staff working (b) describe the function and features of the half pilot staff, pilot staff or Pilot Staff Ticket (c) identify the limits of a pilot staff section (d) follow the correct procedure to introduce pilot staff working (e) follow the correct procedure to issue a Proceed Authority for rail traffic to enter and exit a pilot staff section (f) station Handsignallers correctly (g) at the appropriate time, warn Drivers and track vehicle operators that pilot staff working is in use (h) identify the authority needed to enter a pilot staff section (i) follow the correct procedure to change the running direction in a pilot staff section (j) follow the correct procedure to transfer a pilot staff (k) follow the correct procedure to use half pilot staffs (l) follow the correct procedure to suspend pilot staff working (m) follow the correct procedure to end pilot staff working (n) correctly compile documentation associated with pilot staff working	NSY 516 NPR 707 NPR 715 NPR 717 NPR 721 NPR 723 NPR 725 NPR 726 NPR 727 NPR 728 NPR 007 NPR 008 NPR 010 NPR 011 NRF 007 NRF 008 NRF 010 NRF 011
5. Suspend a system of Safeworking	(a) state when a system of Safeworking may be suspended (b) identify who is authorised to suspend a system of Safeworking	NSY 518 NPR 721

pre-release



**UNIT NSGC 105 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when controlling rail traffic movements Level 1.**

Element	Performance criteria	Reference
1. Identify the types of running signals	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) state the function of running signals</li> <li>(b) state how the following signals indicate the route ahead:                             <ul style="list-style-type: none"> <li>• colour light running signal</li> <li>• semaphore running signal</li> </ul> </li> <li>(c) identify and interpret the indications on signals</li> <li>(d) identify running signal designations and functions</li> <li>(e) describe how the following signals are operated:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) identify the different types of:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(g) interpret the indications of a signal with an A light or A sign fitted</li> <li>(h) identify and describe the function of the running signals used in their area of operation</li> <li>(i) identify and interpret:                             <ul style="list-style-type: none"> <li>• indicator signals</li> <li>• repeater signals</li> </ul> </li> </ul>	NSG 600
2. Identify shunting signals and their indications	<ul style="list-style-type: none"> <li>(a) state the function of shunting signals</li> <li>(b) identify:                             <ul style="list-style-type: none"> <li>• colour light shunting signals</li> <li>• semaphore shunting signals</li> </ul> </li> <li>(c) interpret the routes indicated on shunting signals</li> <li>(d) identify, interpret and respond appropriately to shunting signals</li> </ul>	NSG 602
3. Identify the indicators and signs	<ul style="list-style-type: none"> <li>(a) identify, interpret and respond appropriately to the indicators and signs</li> <li>(b) advise rail traffic crews about trackside signage</li> </ul>	NSG 604

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Respond to signals and signs	(a) state the function of fixed signals (b) identify when a signal indication may/may not be changed to a more restrictive aspect (c) know the location and purpose of signals in their area of work (d) identify the limits of authority of cleared: <ul style="list-style-type: none"> <li>• running signals</li> <li>• shunting signals</li> </ul> (e) state when a running signal can be used to authorise a shunting movement (f) clear running and shunting signals at the appropriate time (g) follow the correct procedure to use a subsidiary shunting signal to authorise rail traffic to pass a home signal (h) follow the correct procedure if a signal indication is: <ul style="list-style-type: none"> <li>• STOP</li> <li>• PROCEED</li> <li>• irregular</li> <li>• out of use</li> </ul> (i) describe signal placement relative to the line	NSG 606 NPR 721 NPR 738 NPR 739 NPR 746
5. Pass signals at STOP	(a) identify when the following signals can be passed at STOP: <ul style="list-style-type: none"> <li>• absolute signals</li> <li>• permissive signals</li> </ul> (b) follow the correct procedure to communicate when rail traffic is affected by a signal at STOP (c) obtain and communicate available information about the condition of the block ahead (d) identify the authority needed to pass a signal at STOP (e) follow the correct procedure if a rail vehicle is to operate past the following signals at STOP: <ul style="list-style-type: none"> <li>• absolute</li> <li>• permissive</li> </ul> (f) follow the correct procedure if rail traffic in the block ahead needs assistance (g) respond to faulty points (h) authorise the manual operation of remotely controlled points at the appropriate time	NSG 608 NPR 707 NPR 721 NPR 740 NPR 742 NPR 743 NPR 744 NPR 746
6. Pass indicators at STOP	(a) state when rail traffic must not pass main line indicators and mechanical points indicators at STOP (b) follow the correct procedure when advised that a main line indicator or mechanical points indicator is at STOP	NSG 610 NPR 746

Element	Performance criteria	Reference
At the end of training the person must be able to:		
7. Deal with an overrun of limit of authority	(a) define when a movement becomes an overrun of limit of authority (b) follow the correct procedure if rail traffic overruns a limit of authority	NSG 612 NPR 721
8. Use blocking facilities	(a) state the function of blocking facilities (b) follow the correct procedure to apply blocking facilities (c) identify when blocking facilities can be temporarily removed (d) follow the correct procedure to record the removal and application of blocking facilities	NSG 614 NPR 721
9. Take appropriate precautions during signalling equipment testing	(a) identify when signals must not be tested (b) follow the correct procedure for signal testing if rail traffic is standing at a signal at STOP (c) follow the correct procedure to record signal test results (d) follow the correct procedure to allow inspection and testing of points protecting a work on track authority.	NSG 616 NPR 721 NPR 737 NPR 740 NPR 747

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) rail traffic density</li> <li>(b) operation near electrical equipment or wiring</li> <li>(c) varying track geography, including tunnels, cuttings, grades, etc.</li> <li>(d) multiple worksites</li> </ul>
Train types	Train types may include but not be limited to: <ul style="list-style-type: none"> <li>(a) electric passenger train</li> <li>(b) self-propelled diesel train</li> <li>(c) work train</li> <li>(d) freight train</li> <li>(e) light engine</li> <li>(f) track maintenance vehicles</li> </ul>
Signals	Signal types used in the Sydney Trains Network
Equipment	Variation in equipment types may include but not be limited to: <ul style="list-style-type: none"> <li>(a) two-way radio, DTRS DICORA terminals, mobile and fixed phone, VCS terminals, computer, fax machine</li> <li>(b) Computer based control systems, Mechanical interlocking machines, Route setting interlocking machines</li> </ul>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
3	2	3	3	2	3	2

pre-release

# C106 Control rail traffic movements Level 2

**UNIT NGE 106 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when controlling rail traffic movements Level 2.**

Element	Performance criteria	Reference
1. Take appropriate safety precautions when walking in the Danger Zone	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) identify the Danger Zone and safe places</li> <li>(b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so</li> <li>(c) take appropriate safety precautions when walking in the Danger Zone</li> <li>(d) describe the safety issues to be considered when placing and removing protection</li> </ul>	<p>NGE 200 NPR 709</p>
2. Use approved communication procedures	<ul style="list-style-type: none"> <li>(a) communicate orally or in written form in a manner that is:                             <ul style="list-style-type: none"> <li>• clear, brief and unambiguous</li> <li>• relevant to the task at hand</li> <li>• agreed as to its meaning before being acted upon</li> <li>• uses the 24-hour clock to refer to the time of day</li> <li>• uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers</li> </ul> </li> <li>(b) confirm communication with the sender at the appropriate time</li> <li>(c) act on the communication at the appropriate time</li> <li>(d) test and check communication equipment prior to use</li> <li>(e) follow the correct protocols for:                             <ul style="list-style-type: none"> <li>• emergency communications</li> <li>• spoken communication</li> <li>• written communication</li> </ul> </li> <li>(f) follow the correct procedure to complete and keep Safeworking forms and records</li> </ul>	<p>NGE 204 NPR 721 NPR 000</p>
3. Report and respond to a Condition Affecting the Network (CAN)	<ul style="list-style-type: none"> <li>(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time</li> <li>(b) use the correct procedure to respond to a reported unsafe condition</li> <li>(c) use the correct procedure to warn rail traffic approaching an area where a CAN has been reported</li> <li>(d) follow the correct procedure to complete and store CAN forms</li> <li>(e) follow the correct procedure to return a line to normal working</li> </ul>	<p>NGE 206 NPR 707 NPR 709 NPR 720 NPR 721 NPR 004 NRF 004</p>

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Respond to a major incident	(a) follow the correct procedure if a major incident is reported (b) follow the correct procedure if the 1500V supply has been affected by an incident or might be a safety hazard (c) identify when normal operation can be resumed in an area affected by a major incident	NGE 208 NPR 714
5. Impose speed restrictions during very hot weather (WOLO)	(a) follow the correct procedure to report WOLO speed restrictions (b) follow the correct procedure to issue WOLO notices to the appropriate people (c) follow the correct procedure to notify Drivers and track vehicle operators about WOLO speed restrictions (d) identify when WOLO speed restrictions apply (e) follow the correct procedure to alter or cancel a WOLO speed restriction (f) follow the correct procedure to record WOLO speed restrictions (g) state the speed limits for rail traffic operating during WOLO speed restrictions (h) describe how WOLO speed restrictions are advertised	NGE 210 NPR 721
6. Access Network information	(a) identify their responsibilities for reading, updating and responding to Network publications (b) identify the Network publications to which they must have access	NGE 212
7. Issue a Network Incident Notice (NIN)	(a) identify when a NIN must be issued (b) correctly compile and submit a NIN to the appropriate person in a timely manner	NGE 214
8. Monitor the use of level crossings	(a) identify the responsibilities of Qualified Workers in charge of level crossings (b) follow the correct procedure if there is missing, damaged or faulty warning equipment or gates at a level crossing (c) identify and describe the different types of level crossings	NGE 216
9. Manage Type F level crossings	(a) follow the correct procedure: <ul style="list-style-type: none"> <li>• if testing is to be suspended</li> <li>• to use a level crossing for which testing has been suspended</li> <li>• if a level crossing is faulty or potentially faulty</li> <li>• if delayed rail traffic is occupying the controlling track-circuit of a Type F level crossing</li> <li>• if all warning equipment at a Type F level crossing cannot be operated</li> <li>• to resume normal operation of a Type F level crossing</li> </ul>	NGE 218 NPR 715 NPR 716 NPR 717 NPR 718

Element	Performance criteria	Reference
At the end of training the person must be able to:		
10. Identify and respond to potentially faulty track-circuits	(a) identify when track-circuits may have become potentially unsafe (b) report abnormal track-circuit operation to the appropriate person (c) follow the correct procedure if faulty track-circuits are reported	NGE 220 NPR 746
11. Ensure that appropriate safety precautions are taken near electrical infrastructure (if applicable)	(a) follow the correct procedure if suspected problems with the electrical infrastructure are reported (b) follow the correct procedure if a fire is reported within or near an electrified corridor (c) identify the components in electrical infrastructure	NGE 222
12. Control the planned removal of the 1500V supply (if applicable)	(a) follow the correct procedure to give clearance for the planned removal of the 1500V supply (b) ensure that the correct procedures are followed for a train to travel from a live to an isolated area (c) follow the correct procedure to prevent trains from entering an isolated 1500V overhead wiring section (d) follow the correct procedure to resume normal working when the 1500V supply has been restored (e) record information about the removal of the 1500V supply (f) follow the correct procedure to control the removal of the 1500V supply in areas where Train Register Books are not used (if applicable)	NGE 224 NPR 705
13. Control the movement of rail traffic when the 1500V supply is removed from an EVMC (if applicable)	(a) communicate with the Electrical System Operator about the planned removal of the 1500V supply from an EVMC (b) ensure that the correct procedures are followed for a train to travel from a live to an isolated area (c) follow the correct procedure to prevent trains from entering an isolated 1500V overhead wiring section (d) follow the correct procedure to resume normal working when the 1500V supply has been restored	NGE 226 NPR 706
14. Coordinate the removal of the 1500V supply in an emergency (if applicable)	(a) communicate with the Electrical System Operator to coordinate the removal of the 1500V supply in an emergency (b) communicate with Signallers to prevent the entry of electric powered trains into isolated areas (c) communicate with Drivers about the incident at the appropriate time (d) follow the correct procedure to restore the 1500V overhead supply (e) record information about the removal of supply	NGE 228 NPR 714
15. Use spoken communication equipment correctly	(a) identify and use the correct communication system at the appropriate time	NGE 230

Element	Performance criteria	Reference
At the end of training the person must be able to:		
16. Fulfil Safeworking responsibilities of a Network Controller	(a) identify and fulfil the duties and responsibilities of Network Controllers (b) identify train control boundaries	NGE 236

**UNIT NWTC 106 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when controlling rail traffic movements Level 2.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Plan work in the Rail Corridor	(a) identify and describe when each of the methods for conducting work within the Danger Zone is used (b) identify and analyse risks to determine the method of protection required (c) describe the duties and responsibilities of a Protection Officer (d) meet specified requirements prior to commencing work on track	NWT 300
2. Authorise a Local Possession Authority (LPA)	(a) describe the function and general requirements of an LPA (b) follow the correct procedure to authorise and/or issue an LPA (c) follow the correct procedure if the limits of an LPA affect two or more train control areas (d) complete relevant documentation (e) identify the rail traffic that is permitted to enter the possession (f) communicate with the Possession Protection Officer/Signallers at the appropriate times (g) authorise work trains and track vehicles to depart the limits of the LPA (h) follow the correct procedure to fulfil an LPA and return the track to service: <ul style="list-style-type: none"> <li>• for the entire portion of track</li> <li>• progressively for one or more portions of track</li> </ul>	NWT 302 NPR 700



Element	Performance criteria At the end of training the person must be able to:	Reference
3. Authorise a Track Occupancy Authority (TOA)	(a) describe the function and general requirements of a TOA (b) identify when a TOA does not give exclusive occupancy (c) define the limits of a TOA (d) follow the correct procedure to authorise and issue a TOA (e) follow the correct procedure to authorise and issue a TOA for a portion of line where a TWA is current (f) compile and maintain appropriate records and documentation (g) identify the rail traffic that is permitted to enter the limits of the TOA (h) follow the correct procedure to authorise a second TOA for the same limits as an existing authority (i) complete relevant documentation and maintain required written records (j) follow the correct procedure to stop entry of rail traffic into the limits of the TOA (k) communicate with the Protection Officer/Signallers at the appropriate times (l) authorise rail traffic associated with the possession to exit the possession area (m) follow the correct procedure to fulfil the TOA and return the site(s) to service	NWT 304 NPR 701 NPR 002 NRF 002
4. Authorise a Track Work Authority (TWA)	(a) describe the function and general requirements of a TWA (b) authorise and issue a TWA (c) manage rail traffic on adjacent, converging and terminal lines (d) maintain appropriate records about a TWA (e) follow the correct procedure to fulfil a TWA and return the track to service	NWT 306 NPR 702 NPR 708
5. Use the Absolute Signal Blocking (ASB) method of work	(a) identify when ASB can be used as a safety measure for performing work in the Danger Zone	NWT 308 NPR 703 NPR 711 NPR 751
6. Use the Lookout Working method of work	(a) identify when work can be undertaken in the Danger Zone with a Lookout	NWT 310 NPR 711 NPR 751
7. Describe the principles of a signal key switch	(a) identify the type of work that can be undertaken in the Danger Zone using Signal Key Switch Blocking (b) identify when a signal key switch can be used to protect a TWA	NWT 320 NPR 753 NPR 754

Element	Performance criteria	Reference
At the end of training the person must be able to:		
8. Record and notify changes to the Network arising from infrastructure work	(a) compile/interpret the information on an Infrastructure Booking Authority (IBA) (b) follow the correct procedure to acknowledge an IBA and to retain fulfilled and cancelled IBAs	NWT 312 NPR 704 NPR 003 NRF 003
9. Control rail traffic operation to/beyond the limits of a TOA or an LPA	(a) identify the authority needed to operate rail traffic at a worksite (b) authorise rail traffic associated with the possession to exit the possession area	NWT 314 NWT 316
10. Manage the travel of track vehicles	(a) identify the authority needed to travel track vehicles in the Network and the conditions of each authority (b) authorise track vehicles to enter or be placed on a running line at the appropriate time (c) authorise the movements of track vehicles travelling as a train (d) follow the correct procedure if the movement of track vehicles travelling as a train has not been advertised (e) describe the procedure for travelling track vehicles under a TOA (f) obtain appropriate information from the person with the authority to travel track vehicles under a TOA (g) ensure that the correct procedure is followed to stable track vehicles on running lines or in sidings	NWT 304 NWT 316 NPR 701 NPR 748 NPR 002 NRF 002

**UNIT NTRC 106 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when controlling rail traffic movements Level 2.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Respond correctly if rail traffic needs to be protected	(a) identify the circumstances in which rail traffic must be protected (b) follow the correct procedure if a line obstruction is reported (c) identify when lines adjacent to stopped rail traffic must be protected (d) ensure that correct procedures are followed to protect delayed rail traffic	NTR 400 NPR 709 NPR 712 NPR 720
2. Respond correctly if a train is reported as unfit to travel	(a) identify when a train must be inspected and certified as meeting the operating standards in the Train Operating Conditions (TOC) manual (b) follow the correct procedure if train defects are reported or suspected en route (c) follow the correct procedure if a vehicle is considered to be unfit for travel	NTR 402

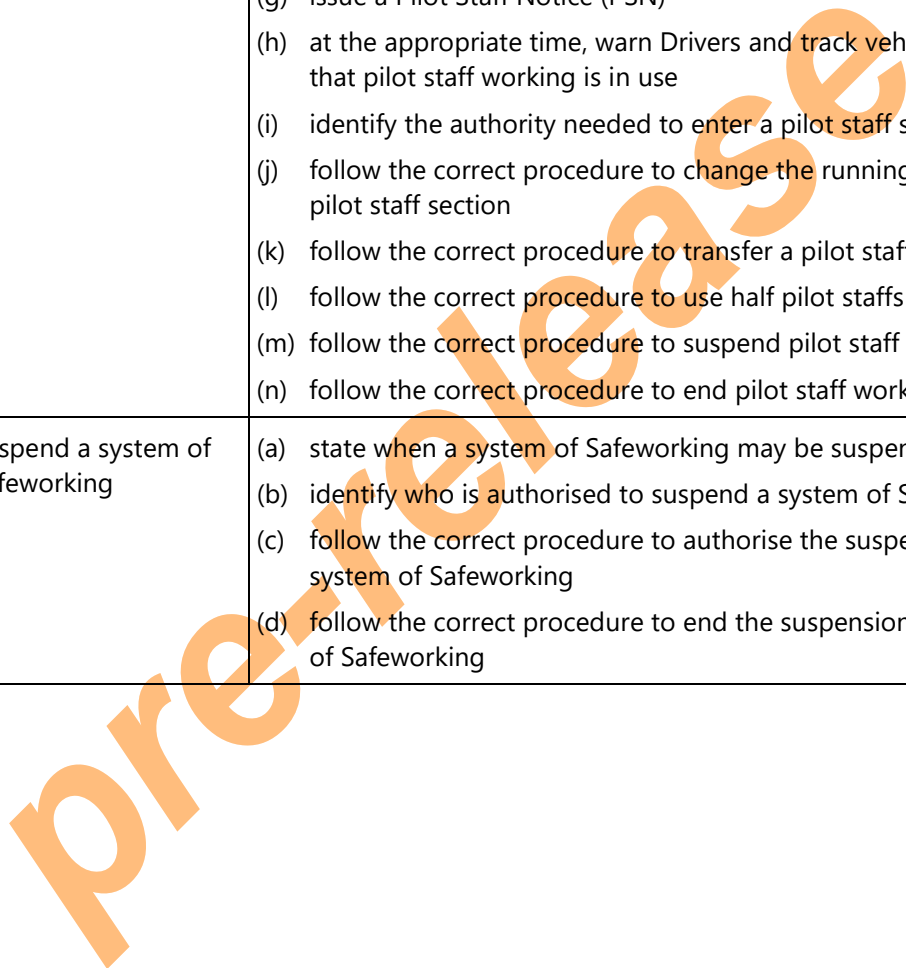
Element	Performance criteria At the end of training the person must be able to:	Reference
3. Respond correctly if defective train equipment is reported	(a) ensure that the correct procedure is followed to operate a train with the air brake isolated on a vehicle (b) ensure that the correct procedure is followed if a vehicle with a defective handbrake is attached to a train (c) follow the correct procedure if a train's end-of-train marker is reported as missing, defective or not lit (d) follow the correct procedure if it is reported that a train's: <ul style="list-style-type: none"> <li>• braking system is defective</li> <li>• lights are defective</li> <li>• whistle is defective</li> <li>• speedometer is defective</li> <li>• Driver Safety System is defective</li> <li>• communication system is defective</li> </ul> (e) respond correctly to reported defective running gear (f) follow the correct procedure if defective wheels, axle boxes or traction power is reported (g) respond correctly if defective rail vehicles are reported	NTR 404 NTR 406 NTR 408 NTR 410 NTR 412 NTR 414
4. Arrange for a disabled rail traffic to be removed from a section	(a) take appropriate action if rail traffic becomes disabled (b) arrange the removal of a disabled rail traffic (c) follow the correct procedure if a rail traffic needs to be divided into portions for removal from a section (d) follow the correct procedure if rail traffic accidentally divides	NTR 416 NPR 712 NPR 721
5. Identify the authority needed for movement of rail traffic within yard limits	(a) identify who authorises rail traffic movements on a running line within yard limits (b) identify yard limits in Rail Vehicle Detection (RVD) territory (c) ensure that the correct procedure is followed to authorise movements: <ul style="list-style-type: none"> <li>• if fixed signals are unavailable</li> <li>• that are unsignalled</li> <li>• that involve a wrong running-direction movement</li> <li>• past a starting or a home/starting signal at STOP on a bidirectional line</li> </ul> (d) ensure that the correct procedure is followed to authorise unsignalled rail traffic movements through an automatic signalling area within consolidated yard limits	NTR 418

Element	Performance criteria At the end of training the person must be able to:	Reference
6. Ensure that shunting movements are safe	(a) state where the following shunting methods can be used: <ul style="list-style-type: none"> <li>• locomotive shunting</li> <li>• gravitation shunting</li> </ul> (b) identify where loose shunting is not permitted (c) follow the correct procedure if trains or vehicles need to be stabled on a running line	NTR 420
7. Ensure that shunting movements at intermediate sidings are safe	(a) follow the correct procedure for a train to arrive/depart at/from an intermediate siding (b) follow the correct procedure if a train is to be stabled in an intermediate siding	NTR 422
8. Authorise propelling movements	(a) define a 'propelling movement' (b) identify who is responsible for: <ul style="list-style-type: none"> <li>• controlling propelling movements</li> <li>• directing propelling movements</li> <li>• authorising propelling movements</li> </ul> (c) identify the limits of propelling movements (d) identify the authority needed to conduct propelling movements	NTR 424
9. Deal with overdue trains	(a) follow the correct procedure if rail traffic is overdue in a section (b) follow the correct procedure if rail traffic stoppage is or will become extended (c) follow the correct procedure if rail traffic is reported to be disabled	NTR 426
10. Use a SAFE Notice	(a) state the function of a SAFE Notice (b) follow the correct procedure to issue a SAFE Notice (c) follow the correct procedure if they receive a SAFE Notice	NTR 428
11. Use a TOC Waiver	(a) state the function of a TOC Waiver (b) follow the correct procedure if they receive a TOC Waiver	NTR 430
12. Protect activities associated with in-service rail traffic	(a) identify when activities associated with rail traffic must be protected	NTR 432 NPR 712 NPR 750

**UNIT NSYC 106 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when controlling rail traffic movements Level 2.**

Element	Performance criteria At the end of training the person must be able to:	Reference
1. Use Rail Vehicle Detection (RVD) system of Safeworking (if applicable)	(a) describe the principles of the RVD system of Safeworking (b) follow the correct procedure if a rail vehicle is to enter a block (c) follow the correct procedure when a signal box or a local control panel is to be switched in/out	NSY 500 NPR 721 NPR 737 NPR 738 NPR 739
2. Manually maintain blocks between rail traffic movements	(a) describe the principles of manual block working (b) state when basic block working can be used (c) state when CAN block working can be used (d) keep appropriate records of manual block working (e) identify the authority needed to enter and occupy a block under manual block working (f) identify the limits for: <ul style="list-style-type: none"> <li>• basic block working</li> <li>• CAN block working</li> </ul> (g) authorise the introduction of CAN block working (h) authorise the establishment and removal of block posts and clearance locations (i) issue a CAN form (j) end CAN block working	NSY 512 NPR 721 NPR 722 NPR 723 NPR 724 NPR 746 NPR 004 NRF 004
3. Use a Special Proceed Authority (SPA)	(a) describe when a SPA is used (b) describe the information that must be included on a SPA (c) follow the correct procedure to authorise train travel under a SPA (d) follow the correct procedure to issue a SPA (e) follow the correct procedure if a SPA authorises a movement beyond an attended location or a remote controlled location (f) state when a SPA can be cancelled or fulfilled (g) follow the correct procedure to return to normal working following SPA working	NSY 514 NPR 707 NPR 721 NPR 746 NPR 005 NPR 005 NRF 005

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Use the pilot staff working method of special working	(a) describe the principles of pilot staff working (b) describe the function and features of the half pilot staff, pilot staff or Pilot Staff Ticket (c) identify the limits of a pilot staff section (d) authorise the introduction of pilot staff working (e) authorise the establishment and removal of block posts (f) compile a Pilot Staff Working Introduction form (g) issue a Pilot Staff Notice (PSN) (h) at the appropriate time, warn Drivers and track vehicle operators that pilot staff working is in use (i) identify the authority needed to enter a pilot staff section (j) follow the correct procedure to change the running direction in a pilot staff section (k) follow the correct procedure to transfer a pilot staff (l) follow the correct procedure to use half pilot staffs (m) follow the correct procedure to suspend pilot staff working (n) follow the correct procedure to end pilot staff working	NSY 516 NPR 707 NPR 715 NPR 717 NPR 721 NPR 723 NPR 725 NPR 726 NPR 727 NPR 728 NPR 010 NRF 010
5. Suspend a system of Safeworking	(a) state when a system of Safeworking may be suspended (b) identify who is authorised to suspend a system of Safeworking (c) follow the correct procedure to authorise the suspension of a system of Safeworking (d) follow the correct procedure to end the suspension of a system of Safeworking	NSY 518 NPR 721



**UNIT NSGC 106 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when controlling rail traffic movements Level 2.**

Element	Performance criteria	Reference
1. Identify the types of running signals	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) state the function of running signals</li> <li>(b) state how the different types of running signals indicate the route ahead</li> <li>(c) identify and interpret the indications on semaphore signals</li> <li>(d) identify running signal designations and functions</li> <li>(e) describe how the following signals are operated:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) identify the different types of:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(g) interpret the indications of a signal with an A light or A sign fitted</li> <li>(h) identify and describe the function of the running signals used in their area of operation</li> <li>(i) identify and interpret:                             <ul style="list-style-type: none"> <li>• indicator signals</li> <li>• repeater signals</li> </ul> </li> </ul>	NSG 600
2. Identify shunting signals	<ul style="list-style-type: none"> <li>(a) state the function of shunting signals</li> <li>(b) identify:                             <ul style="list-style-type: none"> <li>• colour light shunting signals</li> <li>• semaphore shunting signals</li> </ul> </li> <li>(c) interpret the routes indicated on shunting signals</li> <li>(d) identify, interpret and respond appropriately to shunting signals used in their area of operation</li> </ul>	NSG 602
3. Identify the indicators and signs	<ul style="list-style-type: none"> <li>(a) identify and interpret the indicators and signs used in their area of operation</li> <li>(b) follow the correct procedure if advised that it is necessary for rail traffic to travel at reduced speed over a portion of track</li> </ul>	NSG 604

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Respond to signals and signs	(a) state the function of fixed signals (b) identify when a signal indication may/may not be changed to a more restrictive aspect (c) know the location and purpose of signals in their area of work (d) identify the limits of authority of cleared: <ul style="list-style-type: none"> <li>• running signals</li> <li>• shunting signals</li> </ul> (e) state when a running signal can be used to authorise a shunting movement (f) describe the correct procedure if a signal indication is: <ul style="list-style-type: none"> <li>• STOP</li> <li>• PROCEED</li> <li>• irregular</li> <li>• out of use</li> </ul> (g) describe signal placement relative to the line	NSG 606 NPR 721 NPR 746
5. Pass signals at STOP	(a) identify when the following signals can be passed at STOP: <ul style="list-style-type: none"> <li>• absolute signals</li> <li>• permissive signals</li> </ul> (b) obtain and communicate available information about the condition of the block ahead (c) identify the authority needed to pass a signal at STOP (d) follow the correct procedure if rail traffic in the block ahead needs assistance (e) respond to faulty points	NSG 608 NPR 707 NPR 721 NPR 740 NPR 742 NPR 743 NPR 744 NPR 746
6. Pass indicators at STOP	(a) state when rail traffic must not pass main line indicators and mechanical points indicators at STOP (b) follow the correct procedure when advised that a main line indicator or mechanical points indicator is at STOP	NSG 610 NPR 746
7. Deal with an overrun of limit of authority	(a) define when a movement becomes an overrun of limit of authority (b) follow the correct procedure if rail traffic overruns a limit of authority	NSG 612 NPR 721
8. Use blocking facilities	(a) state the function of blocking facilities (b) follow the correct procedure to apply blocking facilities (c) identify when blocking facilities can be temporarily removed (d) follow the correct procedure to record the removal and application of blocking facilities	NSG 614 NPR 721



Element	Performance criteria	Reference
	At the end of training the person must be able to:	
9. Take appropriate precautions during signalling equipment testing	(a) identify when signals must not be tested (b) follow the correct procedure for signal testing if rail traffic is standing at a signal at STOP (c) follow the correct procedure to record signal test results (d) follow the correct procedure to allow inspection and testing of points protecting a work on track authority	NSG 616 NPR 721 NPR 737 NPR 740 NPR 747

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: (a) rail traffic density (b) operation near electrical equipment or wiring (c) varying track geography, including tunnels, cuttings, grades, etc. (d) multiple worksites (e) rail traffic density (f) attended and unattended locations
Train types	Train types may include but not be limited to: (a) electric passenger train (b) self-propelled diesel train (c) work train (d) freight train (e) light engine (f) track maintenance vehicles
Signals	Signal types used
Equipment	(a) two-way radio, DTRS DICORA terminals, mobile and fixed phone, VCS terminals, computer, fax machine, (b) Computer based control and monitoring systems including TLS.

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
3	3	3	3	2	3	2

# C107 Perform rail operations Level 1

**UNIT NGE C 107 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing non-driving rail operations Level 1.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Take appropriate safety precautions when walking in the Danger Zone	(a) identify the Danger Zone and safe places (b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so (c) take appropriate safety precautions when walking in the Danger Zone (d) describe the safety issues to be considered when placing and removing protection	NGE 200 NPR 709
2. Give and respond to handsignals	(a) stand in the correct place to give handsignals (b) move to a safe place when rail traffic approaches (c) maintain effective communication with the appropriate people (d) give the correct handsignals at the appropriate time and continue to handsignal as required (e) stop rail traffic at the appropriate time (f) give and interpret handsignals correctly (g) obey and acknowledge handsignals at the appropriate time	NGE 202 NPR 702 NPR 711
3. Use approved communication procedures	(a) communicate orally or in written form in a manner that is: <ul style="list-style-type: none"> <li>• clear, brief and unambiguous</li> <li>• relevant to the task at hand</li> <li>• agreed as to its meaning before being acted upon</li> <li>• uses the 24-hour clock to refer to the time of day</li> <li>• uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers</li> </ul> (b) confirm communication with the sender at the appropriate time (c) act on the communication at the appropriate time (d) test and check communication equipment prior to use (e) follow the correct protocols for: <ul style="list-style-type: none"> <li>• emergency communications</li> <li>• spoken communication</li> <li>• written communication</li> </ul> (f) follow the correct procedure to complete and keep Safeworking forms and records	NGE 204 NPR 721 NPR 000

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Access Network information	(a) identify their responsibilities for reading, updating and responding to Network publications (b) identify the Network publications to which they must have access	NGE 212
5. Ensure the safety of road, rail and pedestrian traffic at a level crossing	(a) identify the different types of level crossings (b) follow the correct procedure to protect a faulty Type F level crossing	NGE 216 NGE 218
6. Take appropriate safety precautions when near electrical infrastructure (if applicable)	(a) identify the main components of electrical infrastructure (b) describe the safety issues to be considered when assessing the risk of working near electrical equipment or wiring (c) identify safe working distances from electrical equipment and wiring (d) take appropriate safety precautions when near 1500V overhead wiring (e) follow (or describe) the correct procedure if: <ul style="list-style-type: none"> <li>• they suspect problems in the electrical infrastructure</li> <li>• there is a fire near the 1500V overhead wiring</li> <li>• there are fallen electrical wires</li> <li>• foreign objects are caught in or touching the overhead wiring</li> </ul>	NGE 222
7. Use spoken communication equipment correctly	(a) identify and use the correct communication system at the appropriate time (b) check the operation of the spoken communication equipment at the appropriate time	NGE 230
8. Fulfil the responsibilities of rail traffic crews	(a) identify and fulfil the duties and responsibilities of Train Crews or track vehicle crews	NGE 232

**UNIT NTRC 107 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing non-driving rail operations Level 1.**

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Protect rail traffic	(a) identify the circumstances under which rail traffic must be protected (b) follow the correct procedure to protect rail traffic if railway track signals cannot be used (c) follow the correct procedure if a line obstruction is reported (d) identify when lines adjacent to stopped rail traffic must be protected (e) follow the correct procedure to protect delayed rail traffic	NTR 400 NPR 709 NPR 712 NPR 720

**Variables**

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) multiple worksites</li> </ul>
Train types	Train types may include but not be limited to: <ul style="list-style-type: none"> <li>(a) electric passenger train</li> <li>(b) self-propelled diesel train</li> <li>(c) work train</li> <li>(d) freight train</li> <li>(e) light engine</li> <li>(f) track maintenance vehicles</li> </ul>

Variable	Scope
Signals	Signal types used in the Sydney Trains Network
Equipment	Variation in equipment types may include but not be limited to: (a) hand portable or In cab two-way radio equipment, mobile, trackside or signal phone.

### Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
1	2	1	2	1	1	2

pre-release

# C108 Perform rail operations Level 2

**UNIT NGE 108 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing rail operations Level 2.**

All elements and standards as for Perform rail operations Level 1, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Report and respond to a Condition Affecting the Network (CAN)	(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time (b) use the correct procedure to respond to a reported unsafe condition (c) use the correct procedure to warn rail traffic approaching an area where a CAN has been reported (d) follow the correct procedure to complete and store CAN forms (e) ensure that rail vehicles are operated safely when approaching an area where a CAN has been reported (if applicable)	NGE 206 NPR 707 NPR 709 NPR 720 NPR 721 NPR 004 NRF 004
2. Adhere to speed restrictions during very hot weather (WOLO)	(a) identify when WOLO speed restrictions apply (b) ensure that rail vehicles are operated correctly during WOLO speed restrictions (if applicable) (c) describe how WOLO speed restrictions are advertised	NGE 210 NPR 721
3. Identify and respond to unreliable track-circuit operation	(a) follow the correct procedure if track-circuits are suspected of being faulty	NGE 220

**UNIT NWT 108 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when performing rail operations Level 2.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Plan work in the Rail Corridor	(a) identify and describe when each of the methods for conducting work within the Danger Zone is used (b) identify and analyse risks to determine the method of protection required (c) fulfil the duties and responsibilities of a Protection Officer (d) meet specified requirements prior to commencing work on track	NWT 300
2. Perform rail operations under an LPA	(a) identify the limits of an LPA (b) identify where a work train or track vehicle must be piloted in an LPA (c) identify who can act as a pilot where an LPA is in force	NWT 302 NPR 710

Element	Performance criteria At the end of training the person must be able to:	Reference
3. Perform rail operations under a TOA	(a) use a TOA to travel a track vehicle (if applicable) (b) identify when a TOA does not give exclusive occupancy (c) identify the limits of a TOA (d) identify where a work train or track vehicle must be piloted in a TOA (e) identify who can act as a pilot where a TOA is in force (f) determine when it is necessary to provide fixed worksite protection	NWT 304 NPR 701 NPR 710 NPR 002 NRF 002
4. Perform rail operations in a TWA area	(a) state the position of Handsignalers and railway track signals relative to worksites where a TWA is in force (b) interpret the information on a Worksite Warning form	NWT 306 NPR 702 NPR 011 NRF 011
5. Operate a track vehicle (if applicable)	(a) identify the authority needed to transfer track vehicles in the Network and the conditions of each authority (b) identify when track vehicles can enter or be placed on a running line (c) follow the correct procedure to operate compatible track vehicles fitted with approved coupling devices (d) ensure that travelling track vehicles have appropriately qualified personnel in the front and rear vehicles (e) ensure that track vehicles are operated at a safe speed that does not exceed the allowable maximum (f) ensure that the correct procedure is followed when track vehicles are being transferred as a train (g) communicate with Signallers at the appropriate times (h) ensure that the correct procedure is followed when track vehicles are being transferred under a TOA (i) follow the correct procedure to transfer track vehicles in convoy (j) follow the correct procedure when a track vehicle is being piloted (k) follow the correct procedure to operate track vehicles over a level crossing (l) follow the correct procedure to stable track vehicles on running lines or in sidings (m) ensure that track vehicle whistles and lights are used at the appropriate times	NWT 316 NPR 710 NPR 719 NPR 740 NPR 745 NPR 748
6. Pilot rail traffic in a Local Possession Authority (LPA) or Track Occupancy Authority area	(a) identify the limits within which rail traffic must be piloted (b) pilot rail traffic (c) identify the authority required for rail traffic to enter or depart the limits of an LPA or TOA	NWT 314 NWT 316 NPR 700 NPR 701 NPR 710

**UNIT NTRC 108 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing rail operations Level 2.**

All elements and standards as for Perform rail operations Level 1, plus the following

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use rail traffic whistles	(a) sound rail traffic whistles at the appropriate time (b) use the correct whistle codes to give warning (c) follow the correct procedure if a train's whistle fails (d) follow the correct procedure to operate rail traffic with a defective whistle and/or a defective headlight	NTR 408
2. Move rail vehicles safely within yard limits	(a) identify who authorises rail traffic movements on a running line within yard limits (b) ensure that shunting movements within shunting yards and sidings are carried out safely (c) identify yard limits in Rail Vehicle Detection (RVD) territory (d) obtain the correct authority for rail traffic movements within yard limits: <ul style="list-style-type: none"> <li>• if fixed signals are unavailable</li> <li>• that are unsignalled</li> <li>• that involve a wrong running-direction movement</li> <li>• past a starting or a home/starting signal at STOP on bidirectional line</li> </ul>	NTR 418 NPR 719 NPR 721 NPR 740 NPR 745 NPR 012 NRF 012

pre-release



Element	Performance criteria	Reference
At the end of training the person must be able to:		
3. Make safe shunting movements	(a) maintain effective communication during shunting (b) take appropriate action where there are narrow track clearance signs (c) follow the correct procedure is followed to stable and secure stationary vehicles (d) interpret and take appropriate action if there are red warning flags/lights on vehicles (e) state where the following shunting methods can be used: <ul style="list-style-type: none"> <li>• locomotive shunting</li> <li>• gravitation shunting</li> </ul> (f) identify where loose shunting is not permitted (g) follow the correct procedure to shunt: <ul style="list-style-type: none"> <li>• past yard limits</li> <li>• over points or level crossings</li> <li>• into sidings</li> <li>• beside platforms</li> </ul> (h) follow the correct procedure if trains or vehicles need to be stabled on a running line (i) follow the correct procedure to operate groundframes and non-interlocked points	NTR 420 NPR 719 NPR 721 NPR 740 NPR 742 NPR 743 NPR 744 NPR 745
4. Protect activities associated with in-service rail traffic	(a) identify when repairs or inspections to rail traffic must be protected (b) follow the correct procedure to identify the location of a worksite (c) perform the duties of a Driver, Track Vehicle Operator or Train Technican when repairs or inspections to rail traffic require protection (d) follow the correct procedure to have rail traffic excluded from a portion of track by setting and keeping signals at STOP (e) communicate with the Signaller at the appropriate time (f) follow the correct procedure to have the portion of track returned to service	NTR 432 NPR 712 NPR 721 NPR 750

**UNIT NSGC 108 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when performing rail operations Level 2.**

Element	Performance criteria At the end of training the person must be able to:	Reference
1. Identify the types of running signals	(a) state the function of running signals (b) state how the different types of running signals indicate the route ahead (c) identify and interpret the indications on semaphore signals (d) identify running signal designations and functions (e) describe how the following signals are operated: <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> (f) identify the different types of: <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> (g) interpret the indications of a signal with an A light or A sign fitted (h) identify and describe the function of the running signals used in their area of operation (i) identify and interpret: <ul style="list-style-type: none"> <li>• indicator signals</li> <li>• repeater signals</li> </ul>	NSG 600
2. Identify shunting signals	(a) state the function of shunting signals (b) identify: <ul style="list-style-type: none"> <li>• colour light shunting signals</li> <li>• semaphore shunting signals</li> </ul> (c) interpret the routes indicated on shunting signals (d) identify, interpret and respond appropriately to shunting signals used in their area of operation	NSG 602 NSG 606

Element	Performance criteria	Reference
3. Identify and interpret indicators and signs	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) state where temporary WARNING, CAUTION and CLEARANCE speed signs are positioned relative to a worksite</li> <li>(b) state how Drivers and track vehicle operators are notified that it may be necessary to operate rail traffic at reduced speed over a portion of track</li> <li>(c) identify and interpret all temporary and permanent speed signs relevant to operational requirements</li> <li>(d) identify when to increase and decrease speed to comply with speed signs</li> <li>(e) ensure that rail traffic is operated according to the speed signs</li> <li>(f) identify, interpret and respond appropriately to the indicators used in their area of operation</li> </ul>	NSG 604 NPR 713
4. Respond to signals and signs	<ul style="list-style-type: none"> <li>(a) state the function of fixed signals</li> <li>(b) identify when a signal indication may/may not be changed to a more restrictive aspect</li> <li>(c) know the location and purpose of signals in their area of work</li> <li>(d) identify the limits of authority of cleared:                             <ul style="list-style-type: none"> <li>• running signals</li> <li>• shunting signals</li> </ul> </li> <li>(e) state when a running signal can be used to authorise a shunting movement</li> <li>(f) follow the correct procedure to operate a rail vehicle past a cleared shunting signal</li> <li>(g) follow the correct procedure to operate rail traffic past a YARD LIMIT or LANDMARK sign</li> <li>(h) follow the correct procedure if a signal indication is:                             <ul style="list-style-type: none"> <li>• STOP</li> <li>• PROCEED</li> <li>• irregular</li> <li>• out of use</li> </ul> </li> <li>(i) describe signal placement relative to the line</li> </ul>	NSG 606 NPR 721 NPR 746

Element	Performance criteria	Reference
At the end of training the person must be able to:		
5. Pass signals at STOP	(a) identify when the following signals can be passed at STOP: <ul style="list-style-type: none"> <li>• absolute signals</li> <li>• permissive signals</li> </ul> (b) follow the correct procedure to communicate with the Signaller when affected by a signal at STOP (c) obtain and communicate available information about the condition of the block ahead (d) identify the authority needed to pass a signal at STOP (e) ensure that the correct procedure is followed to operate a rail vehicle past the following signals at STOP: <ul style="list-style-type: none"> <li>• absolute</li> <li>• permissive</li> </ul> (f) make sure that the rail vehicle travels at the appropriate speed after passing a signal at STOP (g) ensure that the correct procedure is followed to operate a rail vehicle when passing a signal at STOP and the condition of the track ahead is not known (h) follow the correct procedure if rail traffic in the block ahead needs assistance (i) respond to faulty points (j) manually operate points as required	NSG 608 NPR 707 NPR 721 NPR 740 NPR 742 NPR 743 NPR 744 NPR 746
6. Respond to indicators at STOP	(a) state when rail traffic must not pass main line indicators and mechanical points indicators at STOP (b) follow the correct procedure to report passing a main line indicator or mechanical points indicator at STOP	NSG 610
7. Deal with an overrun of limit of authority	(a) define when a movement becomes an overrun of limit of authority (b) follow the correct procedure if rail traffic overruns a limit of authority	NSG 612 NPR 721

## Variables

Variable	Scope
Track environment	<p>The track environment may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) multiple worksites</li> </ul>
Train types	<p>Train types may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) electric passenger train</li> <li>(b) self-propelled diesel train</li> <li>(c) work train</li> <li>(d) freight train</li> <li>(e) light engine</li> <li>(f) track maintenance vehicles</li> </ul>
Signals	Signal types used in the Sydney Trains Network
Equipment	<p>Variation in equipment types may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) hand portable or In cab two-way radio equipment, mobile, trackside or signal phone.</li> <li>(b) different types of point motors</li> </ul>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	1	2	1	2	2

# C109 Perform rail operations Level 3

**UNIT NGE 109** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing rail operations Level 3.

All elements and standards as for *Perform rail operations Levels 1 and 2*, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Report and respond to a major incident	(a) follow the correct procedure to report a major incident (b) follow the correct procedure if the 1500V supply has been affected by an incident or might be a safety hazard (c) report relevant details about a major incident	NGE 208 NPR 714
2. Operate rail vehicles when there is a removal of the 1500V overhead supply	(a) follow the correct procedure to enter or travel from a live to an isolated area	NGE 224 NGE 226

**UNIT NWT 109** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when performing rail operations Level 3.

All elements and standards as for *Perform rail operations Levels 1 and 2*, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Operate a work train (if applicable)	(a) identify the authority needed to operate a work train (b) identify where a work train must be piloted (c) ensure that the correct procedure is followed to pass any signals at STOP that cannot be cleared within the work on track authority limits (d) make sure that the correct procedure is followed to make unsignalled movements if the work on track authority limits are within yard limits (e) ensure that the responsibilities of a Driver are fulfilled when a work train is being piloted (f) follow the correct procedure to enter or exit the limits of a work on track authority	NWT 314 NPR 710

**UNIT NTRC 109 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing rail operations Level 3.**

All elements and standards as for *Perform rail operations Levels 1 and 2*, plus the following:

Element	Performance criteria	Reference
1. Ensure that trains are fit to travel	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) identify when a train, rake of vehicles or a vehicle must be inspected and certified as meeting the operating standards in the Train Operating Conditions (TOC) manual</li> <li>(b) follow the correct procedures to ensure that the train brakes are currently certified as working in accordance with the requirements of the TOC manual</li> <li>(c) follow the correct procedures to ensure that rail vehicle integrity is maintained</li> <li>(d) ensure that all required standard equipment is fitted and in working order</li> <li>(e) follow the correct procedures if dangerous goods are being carried in a train consist</li> <li>(f) follow the correct procedure to check passing trains en route and report any defects observed</li> <li>(g) follow the correct procedure if train defects are reported or suspected en route</li> <li>(h) follow the correct procedure if a vehicle is considered to be unfit for travel</li> </ul>	NTR 402
2. Use train lights	<ul style="list-style-type: none"> <li>(a) use the correct train lighting to indicate train direction of travel and completeness</li> <li>(b) follow the correct procedure if the end-of-train marker is reported as missing, defective or not lit</li> <li>(c) use the correct train lighting when operating a locomotive in a shunting yard</li> <li>(d) use a train's headlights at the appropriate time</li> </ul>	NTR 406
3. Deal with defective vehicles	<ul style="list-style-type: none"> <li>(a) take appropriate action if defective vehicles are observed by, or reported to, the rail traffic crew</li> <li>(b) place the correct repair card on a defective vehicle at the appropriate time</li> <li>(c) follow the correct procedure to detach and/or move a defective vehicle</li> <li>(d) follow the correct procedure to haul, propel or tow a defective vehicle</li> </ul>	NTR 414 NPR 712 NPR 720 NPR 721

Element	Performance criteria At the end of training the person must be able to:	Reference
4. Make safe shunting movements	(a) maintain effective communication during shunting (b) take appropriate action where there are narrow track clearance signs (c) follow the correct procedure to stable and secure stationary vehicles (d) interpret and take appropriate action if there are red warning flags/lights on vehicles (e) state where the following shunting methods can be used: <ul style="list-style-type: none"> <li>• locomotive shunting</li> <li>• gravitation shunting</li> </ul> (f) identify where loose shunting is not permitted (g) follow the correct procedure to shunt: <ul style="list-style-type: none"> <li>• past yard limits</li> <li>• over points or level crossings</li> <li>• into sidings</li> <li>• beside platforms</li> </ul> (h) follow the correct procedure if a train or vehicle needs to be stabled on a running line (i) follow the correct procedure to operate groundframes and non-interlocked points	NTR 420 NPR 719 NPR 721 NPR 740 NPR 742 NPR 743 NPR 744 NPR 745
5. Ensure safe shunting of trains at intermediate sidings	(a) communicate with the Signaller at the appropriate time (b) follow the correct procedure to restore siding equipment after the completion of shunting (c) if applicable, follow the correct procedure to operate a ground frame to shunt at an intermediate siding (d) follow the correct procedure to stable rail traffic in an intermediate siding (e) follow the correct procedure to exit rail traffic from an intermediate siding	NTR 422 NPR 719 NPR 721



Element	Performance criteria	Reference
At the end of training the person must be able to:		
6. Ensure that propelling movements are carried out safely	(a) define a 'propelling movement' (b) identify who is responsible for: <ul style="list-style-type: none"> <li>• controlling propelling movements</li> <li>• directing propelling movements</li> <li>• authorising propelling movements</li> </ul> (c) identify and plan the route and limits of a propelling movement (d) identify the authority needed to conduct a propelling movement: <ul style="list-style-type: none"> <li>• over a level crossing</li> <li>• within yard limits</li> <li>• in a shunting yard</li> <li>• in a section</li> <li>• in the wrong running-direction</li> </ul> (e) follow the correct procedure to make wrong running-direction propelling movements (f) identify when a Qualified Worker is not required to direct a propelling movement from the leading vehicle	NTR 424 NPR 719 NPR 721
7. Deal with overdue trains	(a) follow the correct procedure: <ul style="list-style-type: none"> <li>• if a rail traffic is overdue in a section</li> <li>• if rail traffic stoppage is or will become extended</li> <li>• to inspect stopped rail traffic</li> <li>• if a rail traffic is reported to be disabled</li> </ul>	NTR 426 NTR 432 NPR 712 NPR 750
8. Use a SAFE Notice	(a) state the function of a SAFE Notice (b) follow the correct procedure if they receive a SAFE Notice	NTR 428
9. Use a TOC Waiver	(a) state the function of a TOC Waiver (b) follow the correct procedure if they receive a TOC Waiver	NTR 430

**UNIT NSYC 109 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when performing rail operations Level 3.**

All elements and standards as for *Perform rail operations Levels 1 and 2*, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use Rail Vehicle Detection (RVD) system of Safeworking (if applicable)	(a) describe the principles of the RVD system of Safeworking (b) follow the correct procedure to enter a block	NSY 500 NPR 721

Element	Performance criteria	Reference
At the end of training the person must be able to:		
2. Manually maintain blocks between rail traffic movements	(a) describe the principles of manual block working (b) state when basic block working can be used (c) state when CAN block working can be used (d) keep appropriate records of manual block working (e) identify the authority needed to enter and occupy a block under manual block working (f) identify the limits for: <ul style="list-style-type: none"> <li>• basic block working</li> <li>• CAN block working</li> </ul> (g) identify when signals at STOP can be passed under CAN block working (h) ensure that the correct procedure is followed if an automatic signal is used as a limit of CAN block working (i) ensure that the correct procedure is followed to receive a CAN form	NSY 512 NPR 721 NPR 722 NPR 723 NPR 724 NPR 746 NPR 004 NRF 004
3. Use a Special Proceed Authority (SPA)	(a) describe when a Special Proceed Authority (SPA) is used (b) describe the information that must be included on a SPA (c) ensure that the correct procedure is followed if a SPA authorises a movement beyond an attended location or a remote controlled location (d) state when a SPA can be cancelled or fulfilled	NSY 514 NPR 721 NPR 746 NPR 005 NRF 005
4. Use the pilot staff working method of special working	(a) describe the principles of pilot staff working (b) describe the function and features of the half pilot staff, pilot staff or Pilot Staff Ticket (c) identify the limits of a pilot staff section (d) follow the correct procedure to receive a Proceed Authority to enter and exit a pilot staff section (e) ensure that the correct procedure is followed when warned that pilot staff working is in use (f) follow the correct procedure to use half pilot staffs	NSY 516 NPR 707 NPR 715 NPR 717 NPR 721 NPR 723 NPR 725 NPR 726 NPR 727 NPR 007 NPR 008 NPR 010 NPR 011 NRF 007 NRF 008 NRF 010 NRF 011

Element	Performance criteria	Reference
At the end of training the person must be able to:		
5. Suspend a system of Safeworking	(a) state when a system of Safeworking may be suspended (b) identify who is authorised to suspend a system of Safeworking	NSY 518 NPR 721

**UNIT NSGC 109 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when performing rail operations Level 3.**

All elements and standards as for *Perform rail operations Levels 1 and 2*, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use blocking facilities	(a) state the function of blocking facilities	NSG 614

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) multiple worksites</li> </ul>

Variable	Scope
Train types	Train types may include but not be limited to: (a) electric passenger train (b) self-propelled diesel train (c) work train (d) freight train (e) light engine (f) track maintenance vehicles
Trackside signage	All trackside signage
Signals	Signal types used in the Sydney Trains Network
Equipment	Variation in equipment types may include but not be limited to: (a) hand portable or In cab two-way radio equipment, mobile, trackside or signal phone. (b) different types of point motors

### Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	1	2	2

# C110 Perform rail operations Level 4

**UNIT NGE 110** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when performing rail operations Level 4.

All elements and standards as for *Perform rail operations Levels 1, 2 and 3*, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Report a Network incident	(a) describe when a Network Incident Notice (NIN) is issued (b) follow the correct procedure if there is an incident that must be reported	NGE 214

**UNIT NTRC 110** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when performing rail operations Level 4.

All elements and standards as for *Perform rail operations Levels 1, 2 and 3*, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Safely use the brakes of trains	Ensure the correct procedure is followed: (a) to hold a train stationary on a grade in accordance with the requirements specified in the Train Operating Conditions (TOC) manual (b) to operate a light train down a grade in accordance with the requirements specified in the TOC manual (c) to operate a train with more than one motive power unit (d) if there is abnormal application of automatic air brakes en route (e) to operate a train with the air brake isolated on a vehicle (f) to detach and attach locomotives from a train (g) if a rail vehicle has a defective handbrake	NTR 404
2. Deal with defective equipment en route	(a) follow the correct procedure if train equipment becomes defective en route	NTR 410 NTR 412
3. Deal with disabled rail traffic	(a) take appropriate action if a rail traffic becomes disabled (b) follow the correct procedure to assist disabled rail traffic from a section (c) follow the correct procedure if disabled rail traffic needs to be divided into portions for removal (d) follow the correct procedure if rail traffic accidentally divides	NTR 416 NPR 712 NPR 720

Element	Performance criteria	Reference
At the end of training the person must be able to:		
4. Operate on-board ATP equipment	(a) take appropriate action if going beneath a train fitted with ATP equipment (b) follow the correct procedure to activate different modes (c) follow the correct procedure set or confirm train data (d) follow the correct procedure if a level transition is missed (e) follow the correct procedure if an ATP intervention occurs (f) correctly isolate ATP equipment	NTR 434 NGE 206

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) multiple worksites</li> </ul>
Train types	Train types may include but not be limited to: <ul style="list-style-type: none"> <li>(a) electric passenger train</li> <li>(b) self-propelled diesel train</li> <li>(c) work train</li> <li>(d) freight train</li> <li>(e) light engine</li> <li>(f) track maintenance vehicles</li> </ul>
Signals	Signal types used in the Sydney Trains Network
Trackside signage	All trackside signage

Variable	Scope
Equipment	Variation in equipment types may include but not be limited to: <ul style="list-style-type: none"> <li>(a) hand portable or In cab two-way radio equipment, mobile, trackside or signal phone.</li> <li>(b) different types of point motors</li> </ul>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	2	3	2

pre-release

# C111 Conduct shunting and marshalling operations

**UNIT NGE 111 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when shunting and marshalling.**

Element	Performance criteria	Reference
1. Take appropriate safety precautions when walking in the Danger Zone	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) identify the Danger Zone and safe places</li> <li>(b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so</li> <li>(c) take appropriate safety precautions when walking in the Danger Zone</li> <li>(d) describe the safety issues to be considered when placing and removing protection</li> </ul>	<p>NGE 200 NPR 709</p>
2. Give and respond to handsignals	<ul style="list-style-type: none"> <li>(a) stand in the correct place to give handsignals</li> <li>(b) move to a safe place when rail traffic approaches</li> <li>(c) give the correct handsignals at the appropriate time and continue to handsignal as required</li> <li>(d) stop rail traffic at the appropriate time</li> <li>(e) maintain effective communication with the appropriate people</li> <li>(f) give and interpret handsignals correctly</li> <li>(g) obey and acknowledge handsignals at the appropriate time</li> </ul>	<p>NGE 202 NPR 721</p>
3. Use approved communication procedures	<ul style="list-style-type: none"> <li>(a) communicate orally or in written form in a manner that:                             <ul style="list-style-type: none"> <li>• is clear, brief and unambiguous</li> <li>• is relevant to the task at hand</li> <li>• is agreed as to its meaning before being acted upon</li> <li>• uses the 24-hour clock to refer to the time of day</li> <li>• uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers</li> </ul> </li> <li>(b) confirm communication with the sender at the appropriate time</li> <li>(c) act on the communication at the appropriate time</li> <li>(d) test and check communication equipment prior to use</li> <li>(e) follow the correct protocols for:                             <ul style="list-style-type: none"> <li>• emergency communications</li> <li>• spoken communication</li> <li>• written communication</li> </ul> </li> <li>(f) follow the correct procedure to complete and keep Safeworking forms and records</li> </ul>	<p>NGE 204 NPR 721 NPR 000</p>



Element	Performance criteria At the end of training the person must be able to:	Reference
4. Report and respond to a Condition Affecting the Network (CAN)	(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time (b) use the correct procedure to respond to a reported unsafe condition	NGE 206 NPR 707 NPR 709 NPR 720 NPR 721 NPR 004 NRF 004
5. Report and respond to a major incident	(a) follow the correct procedure if a major incident is reported (b) follow the correct procedure if the 1500V supply has been affected by an incident or might be a safety hazard (c) report relevant details about a major incident	NGE 208 NPR 714
6. Access Network information	(a) identify their responsibilities for reading, updating and responding to Network publications (b) identify the Network publications to which they must have access	NGE 212
7. Use level crossings	(a) identify the responsibilities of Qualified Workers in charge of level crossings (b) follow the correct procedure if there is missing, damaged or faulty warning equipment or gates at a level crossing (c) identify and describe the types of level crossings (d) interpret/respond appropriately to Type F level crossing trackside signs (e) fulfil the duties of a Qualified Worker at a level crossing with manually operated gates	NGE 216 NPR 715
8. Control rail traffic movements over a Type F level crossing	(a) fulfil the duties of a Qualified Worker in charge of manually operated warning equipment (b) follow the correct procedure if a level crossing is faulty or potentially faulty (c) follow the correct procedure if delayed rail traffic is occupying the controlling track circuit of a Type F level crossing (d) perform the duties of a Handsignaller to protect a level crossing (e) control a wrong running-direction movement over a Type F level crossing operated automatically by track-circuits (f) follow the correct procedure if all warning equipment at a Type F level crossing cannot be operated	NGE 218 NPR 715 NPR 717
9. Identify and respond to potentially faulty track-circuits	(a) identify when track-circuits may have become potentially unsafe (b) report abnormal track-circuit operation to the appropriate person (c) respond correctly to reported unsafe track-circuits	NGE 220 NPR 746

Element	Performance criteria	Reference
At the end of training the person must be able to:		
10. Take appropriate safety precautions when near electrical infrastructure (if applicable)	(a) identify the main components of electrical infrastructure (b) describe the safety issues to be considered when assessing the risk of working near electrical equipment or wiring (c) identify safe working distances from electrical equipment and wiring (d) take appropriate safety precautions when near 1500V overhead wiring (e) follow (or describe) the correct procedure if: <ul style="list-style-type: none"> <li>• they suspect problems in the electrical infrastructure</li> <li>• there is a fire near 1500V overhead wiring</li> <li>• there are fallen electrical wires</li> <li>• foreign objects are caught in or touching the overhead wiring</li> </ul>	NGE 222
11. Use spoken communication equipment correctly	(a) identify and use the correct communication system at the appropriate time (b) check the operation of the spoken communication equipment at the appropriate time	NGE 230

**UNIT NWTC 111 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when shunting and marshalling.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Plan work in the Rail Corridor	(a) identify and describe when each of the methods for conducting work within the Danger Zone is used (b) identify and analyse risks to determine the method of protection required (c) fulfil the duties and responsibilities of a Protection Officer (d) meet specified requirements prior to commencing work on track	NWT 300

**UNIT NTRC 111 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when shunting and marshalling.**

Element	Performance criteria	Reference
1. Ensure that trains are fit to travel	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) identify when a train must be inspected and certified as meeting the operating standards in the Train Operating Conditions (TOC) manual</li> <li>(b) follow the correct procedures to ensure that rail vehicle integrity is maintained</li> <li>(c) follow the correct procedures if dangerous goods are being carried in a train consist</li> <li>(d) follow the correct procedure if a vehicle is considered to be unfit for travel</li> </ul>	NTR 402
2. Shunt/marshal vehicles with defective braking equipment safely	<ul style="list-style-type: none"> <li>(a) follow the correct procedure to marshal a train with the air brake isolated on a vehicle</li> <li>(b) follow the correct procedure to detach and attach rail vehicles from/to a train</li> <li>(c) follow the correct procedures if a rail vehicle has a defective handbrake</li> </ul>	NTR 404
3. Ensure that train lighting is correct	<ul style="list-style-type: none"> <li>(a) use the correct train lighting to indicate train direction of travel and completeness</li> <li>(b) follow the correct procedure if the end-of-train marker is reported as missing, defective or not lit</li> <li>(c) ensure that correct train lighting is displayed in a shunting yard</li> </ul>	NTR 406
4. Deal with defective vehicles	<ul style="list-style-type: none"> <li>(a) take appropriate action if defective vehicles are observed or reported</li> <li>(b) identify and interpret repair cards on defective vehicles</li> <li>(c) follow the correct procedure to detach and/or move a defective vehicle</li> </ul>	NTR 414 NPR 712 NPR 721
5. Ensure the safe movement of rail vehicles within yard limits	<ul style="list-style-type: none"> <li>(a) identify who authorises rail traffic movements on a running line within yard limits</li> <li>(b) ensure that shunting movements within shunting yards and sidings are carried out safely</li> <li>(c) identify yard limits in Rail Vehicle Detection (RVD) territory</li> </ul>	NTR 418 NPR 721

Element	Performance criteria At the end of training the person must be able to:	Reference
6. Make safe shunting movements	(a) maintain effective communication during shunting (b) take appropriate action where there are narrow track clearance signs (c) follow the correct procedure to stable and secure stationary vehicles (d) interpret and take appropriate action if there are red warning flags/lights on vehicles (e) state where the following shunting methods can be used: <ul style="list-style-type: none"> <li>• locomotive shunting</li> <li>• gravitation shunting</li> </ul> (f) identify where loose shunting is not permitted (g) follow the correct procedure to shunt: <ul style="list-style-type: none"> <li>• past yard limits</li> <li>• over points or level crossings</li> <li>• into sidings</li> <li>• beside platforms</li> </ul> (h) follow the correct procedure if rail traffic needs to be stabled on a running line (i) follow the correct procedure to operate groundframes and non-interlocked points	NTR 420 NPR 719 NPR 721 NPR 745
7. Ensure safe shunting of trains at intermediate sidings	(a) communicate with the Signaller at the appropriate time (b) follow the correct procedure to restore siding equipment after the completion of shunting (c) if applicable, follow the correct procedure to operate a groundframe to shunt at an intermediate siding (d) follow the correct procedure to stable rail traffic in an intermediate siding (e) follow the correct procedure to exit rail traffic from an intermediate siding	NTR 422 NPR 719 NPR 721

Element	Performance criteria	Reference
At the end of training the person must be able to:		
8. Ensure that propelling movements are carried out safely	(a) define a 'propelling movement' (b) identify who is responsible for: <ul style="list-style-type: none"> <li>• controlling propelling movements</li> <li>• directing propelling movements</li> <li>• authorising propelling movements</li> </ul> (c) identify and plan the route and limits of a propelling movement (d) identify the authority needed to conduct a propelling movement: <ul style="list-style-type: none"> <li>• over a level crossing</li> <li>• within yard limits</li> <li>• in a shunting yard</li> <li>• in a section</li> <li>• in the wrong running-direction</li> </ul> (e) follow the correct procedure to make wrong running-direction propelling movements (f) identify when a Qualified Worker is not required to direct a propelling movement from the leading vehicle	NTR 424 NPR 719 NPR 721
9. Use a SAFE Notice	(a) state the function of a SAFE Notice (b) follow the correct procedure if they receive a SAFE Notice	NTR 428
10. Use a TOC Waiver	(a) state the function of a TOC Waiver (b) follow the correct procedure if they receive a TOC Waiver	NTR 430
11. Protect activities associated with in-service rail traffic	(a) identify when repairs or inspections to rail traffic must be protected (b) follow the correct procedure to identify the location of a worksite (c) follow the correct procedure to have rail traffic excluded from a portion of track by setting and keeping signals at STOP (d) communicate with the Signaller at the appropriate time (e) follow the correct procedure to have the portion of track returned to service	NTR 432 NPR 712 NPR 750

**UNIT NSYC 111 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when shunting and marshalling.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use Rail Vehicle Detection (RVD) system of Safeworking (if applicable)	(a) describe the principles of the RVD system of Safeworking (b) follow the correct procedure to enter a block	NSY 500 NPR 721

**UNIT NSGC 111 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when shunting and marshalling.**

Element	Performance criteria	Reference
1. Identify the types of running signals	<p>At the end of training the person must be able to:</p> <ul style="list-style-type: none"> <li>(a) state the function of running signals</li> <li>(b) state how the different types of running signals indicate the route ahead</li> <li>(c) identify and interpret the indications on semaphore signals</li> <li>(d) identify running signal designations and functions</li> <li>(e) describe how the following signals are operated:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) identify the different types of:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(g) identify and describe the function of the running signals used in their area of operation</li> <li>(h) identify and interpret:                             <ul style="list-style-type: none"> <li>• indicator signals</li> <li>• repeater signals</li> </ul> </li> </ul>	NSG 600
2. Identify shunting signals	<ul style="list-style-type: none"> <li>(a) state the function of shunting signals</li> <li>(b) identify:                             <ul style="list-style-type: none"> <li>• colour light shunting signals</li> <li>• semaphore shunting signals</li> </ul> </li> <li>(c) interpret the routes indicated on shunting signals</li> <li>(d) identify, interpret and respond appropriately to shunting signals used in their area of operation</li> </ul>	NSG 602
3. Identify the indicators and signs	<ul style="list-style-type: none"> <li>(a) identify, interpret and respond appropriately to the indicators and signs</li> </ul>	NSG 604

Element	Performance criteria	Reference
At the end of training the person must be able to:		
4. Respond to signals and signs	(a) state the function of fixed signals (b) identify when a signal indication may/may not be changed to a more restrictive aspect (c) know the location and purpose of signals in their area of work (d) identify the limits of authority of cleared: <ul style="list-style-type: none"> <li>• running signals</li> <li>• shunting signals</li> </ul> (e) state when a running signal can be used to authorise a shunting movement (f) follow the correct procedure to direct a rail vehicle past a cleared shunting signal (g) follow the correct procedure to use a subsidiary shunting signal to authorise rail traffic to pass a home signal (h) follow the correct procedure if a signal indication is: <ul style="list-style-type: none"> <li>• STOP</li> <li>• PROCEED</li> <li>• irregular</li> <li>• out of use</li> </ul> (i) describe signal placement relative to the line	NSG 606 NPR 721 NPR 746
5. Pass indicators at STOP	(a) state when rail traffic must not pass main line indicators and mechanical points indicators at STOP (b) follow the correct procedure to report passing a main line indicator or mechanical points indicator at STOP (c) respond to faulty points (d) manually operate points as required	NSG 610 NPR 707 NPR 738 NPR 739 NPR 740 NPR 742 NPR 743 NPR 744

## Variables

Variable	Scope
Track environment	<p>The track environment may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited areas</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) rail traffic density</li> </ul>
Train types	<p>Train types may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) work trains</li> <li>(b) track machines</li> <li>(c) other trains</li> </ul>
Equipment	<p>Variation in equipment types might include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) point lever types</li> <li>(b) point clip types</li> <li>(c) two-way radios, mobile phones, trackside phones</li> </ul>
Trackside signage	All trackside signage

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	1	2	2	1	2	1



# C112 Coordinate and manage track protection

**UNIT NGE 112 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when coordinating and managing track protection.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Take appropriate safety precautions when walking in the Danger Zone	(a) identify the Danger Zone and safe places (b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so (c) take appropriate safety precautions when walking in the Danger Zone (d) describe the safety issues to be considered when placing and removing protection	NGE 200 NPR 709
2. Give and respond to handsignals	(a) give and interpret the following handsignals: <ul style="list-style-type: none"> <li>• STOP</li> <li>• DANGER</li> <li>• ALL CLEAR</li> </ul>	NGE 202
3. Use approved communication procedures	(a) communicate orally or in written form in a manner that: <ul style="list-style-type: none"> <li>• is clear, brief and unambiguous</li> <li>• is relevant to the task at hand</li> <li>• is agreed as to its meaning before being acted upon</li> <li>• uses the 24-hour clock to refer to the time of day</li> <li>• uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers</li> </ul> (b) confirm communication with the sender at the appropriate time (c) act on the communication at the appropriate time (d) test and check communication equipment prior to use (e) follow the correct protocols for: <ul style="list-style-type: none"> <li>• emergency communication</li> <li>• spoken communication</li> <li>• written communication</li> </ul> (f) follow the correct procedure to complete and keep Safeworking forms and records	NGE 204 NPR 721 NPR 000

Element	Performance criteria	Reference
At the end of training the person must be able to:		
4. Report and respond to a Condition Affecting the Network (CAN)	(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time (b) use the correct procedure to respond to a reported unsafe condition (c) use the correct procedure to warn rail traffic approaching an area where a CAN has been reported	NGE 206 NPR 707 NPR 709 NPR 720 NPR 721 NPR 004 NRF 004
5. Respond to a major incident	(a) follow the correct procedure if a major incident is reported (b) follow the correct procedure if the 1500V supply has been affected by an incident or might be a safety hazard	NGE 208 NPR 714
6. Impose WOLO speed restrictions	(a) follow the correct procedure to advise the Signaller when WOLOS are applied/lifted	NGE 210
7. Access Network information	(a) identify their responsibilities for reading, updating and responding to Network publications (b) identify the Network publications to which they must have access	NGE 212
8. Take appropriate action if there is a Network incident	(a) describe when a Network Incident Notice (NIN) must be issued (b) follow the correct procedure if there is an incident that must be reported	NGE 214
9. Use level crossings	(a) follow the correct procedure if there are open gates at a private level crossing	NGE 216
10. Take appropriate safety precautions when near electrical infrastructure (if applicable)	(a) identify the main components of electrical infrastructure (b) describe the safety issues to be considered when assessing the risk of working near electrical equipment or wiring (c) identify safe working distances from electrical equipment and wiring (d) take appropriate safety precautions when near 1500V overhead wiring (e) follow (or describe) the correct procedure if: <ul style="list-style-type: none"> <li>• they suspect a problem in the electrical infrastructure</li> <li>• there is a fire near the 1500V supply</li> <li>• there are fallen electrical wires</li> <li>• foreign objects are caught in or touching the overhead wiring</li> </ul>	NGE 222
11. Use spoken communication equipment correctly	(a) identify and use the correct communication system at the appropriate time (b) check the operation of the spoken communication equipment at the appropriate time	NGE 230

Element	Performance criteria	Reference
At the end of training the person must be able to:		
12. Fulfil responsibilities of a Protection Officer	(a) identify the responsibilities of a Protection Officer (b) follow the correct procedures when a change of conditions occur (c) correctly compile and maintain record about methods used for working safely on track and protection arrangements (d) follow the correct procedures in the event of a breach of Network Rules or Network Procedures	NGE 238

**UNIT NWTC 112 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when coordinating and managing track protection.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Plan work in the Rail Corridor	(a) identify and describe when each of the methods for conducting work within the Danger Zone is used (b) identify and analyse risks to determine the method of protection required (c) implement appropriate work on track protection method (d) monitor track protection during work (e) withdraw track protection method when work is complete (f) fulfil the duties and responsibilities of a Protection Officer (g) meet specified requirements prior to commencing work on track	NWT 300
2. Exclude rail traffic in Maintenance Centres and stabling yards	(a) follow correct procedure to exclude rail traffic from a worksite within a shunting yard (b) communicate with appropriate persons to exclude rail traffic at attended and unattended locations (c) secure points using a point clip	NWT 300
3. Perform work that affects ATP equipment	(a) communicate with appropriate persons before commencing work that could affect ATP equipment	NWT 322

**UNIT NTRC 112 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when coordinating and managing track protection.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use a SAFE Notice	(a) state the function of a SAFE Notice (b) follow the correct procedure if they receive a SAFE Notice	NTR 428

**UNIT NSGC 112 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Signals and Signs Network Rules and Network Procedures when coordinating and managing track protection.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Follow the correct procedure if a signal is at STOP	(a) follow the correct procedure to control the passage of rail traffic at a signal at STOP	NSG 606 NSG 608 NPR 746

## Variables

Variable	Scope
Track environment	<p>The track environment may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc.</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) rail traffic density</li> </ul>
Equipment	<p>Variation in equipment types might include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) two-way radios, mobile phones, trackside phones</li> <li>(b) point clip types.</li> </ul>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	2	2	1

# C112A Implement Lookout Working

**UNIT NWTC 112A** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing Lookout Working.

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Use the Lookout Working method of work	(a) identify when work can be undertaken in the Danger Zone using the Lookout Working method of protection (b) make sure that it is safe to work using the Lookout Working method (c) protect work from rail traffic on adjacent lines (d) fulfil the duties and responsibilities of a Protection Officer (e) move to a safe place when rail traffic approaches (f) decide upon and deploy an appropriate number of Lookouts (g) monitor position of Lookouts and identify any deficiencies (h) perform the duties of a Lookout (i) correctly calculate minimum warning time for a specific worksite (j) correctly compile Worksite Protection Plan (NRF 015B) when implementing Lookout Working	NWT 310 NPR 711 NPR 712 NPR 751 NPR 014 NPR 015 NPR 017 NRF 014 NRF 015B NRF 017

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) track-circuited and non-track-circuited lines</li> <li>(f) operation near electrical equipment or wiring</li> <li>(g) rail traffic density</li> </ul>

Variable	Scope
Equipment	Variation in equipment types might include but not be limited to: (a) two-way radios, mobile phones, trackside phones.

### Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	2	2	1

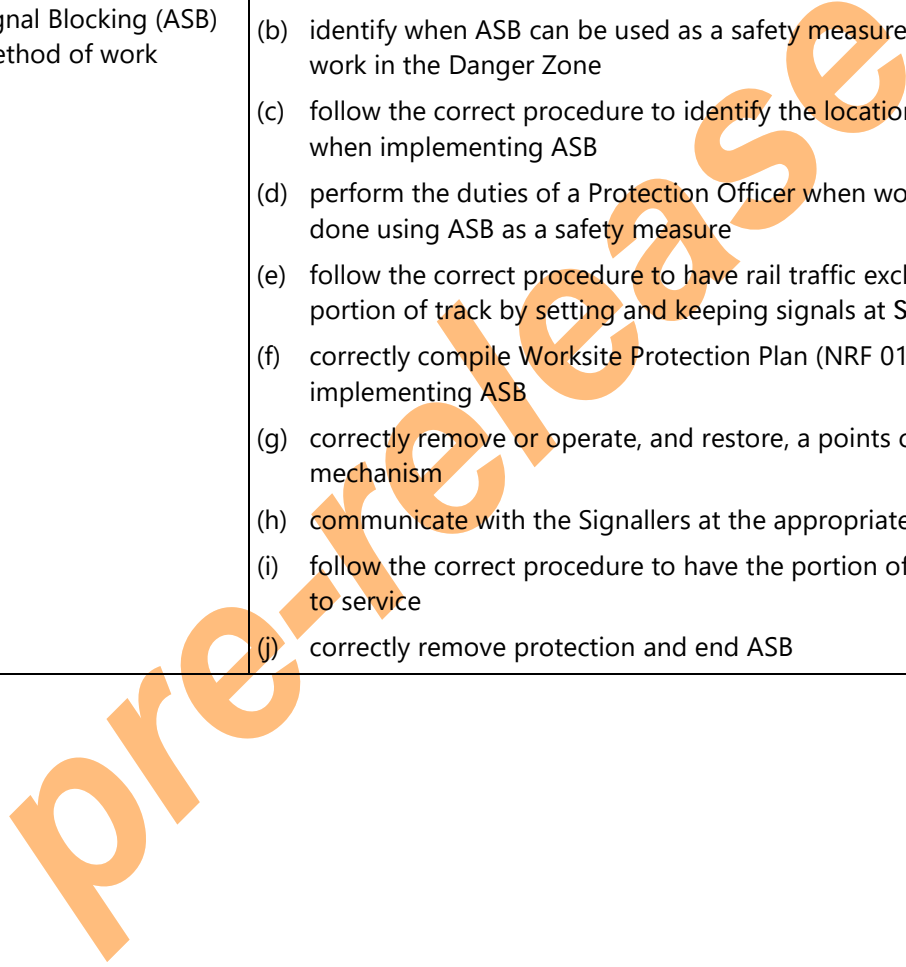
pre-release

# C112B Implement ASB

**UNIT NWTC 112B** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing Absolute Signal Blocking (ASB).

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use the Absolute Signal Blocking (ASB) method of work	(a) describe the principles of the ASB method (b) identify when ASB can be used as a safety measure to perform work in the Danger Zone (c) follow the correct procedure to identify the location of a worksite when implementing ASB (d) perform the duties of a Protection Officer when work is being done using ASB as a safety measure (e) follow the correct procedure to have rail traffic excluded from a portion of track by setting and keeping signals at STOP (f) correctly compile Worksite Protection Plan (NRF 015C) when implementing ASB (g) correctly remove or operate, and restore, a points control mechanism (h) communicate with the Signallers at the appropriate time (i) follow the correct procedure to have the portion of track returned to service (j) correctly remove protection and end ASB	NWT 308 NPR 703 NPR 707 NPR 711 NPR 712 NPR 721 NPR 751 NPR 014 NPR 015 NPR 017 NRF 014 NRF 015C NRF 017



## Variables

Variable	Scope
Track environment	<p>The track environment may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) rail traffic density</li> </ul>
Equipment	<p>Variation in equipment types might include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) two-way radios, mobile phones, trackside phones</li> <li>(b) point clip types</li> </ul>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	2	2	1



# C112C Implement TOA

**UNIT NGE 112C** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when implementing TOA working.

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Use level crossings	(a) identify the different types of level crossings	NGE 216
2. Fulfil responsibilities of a Protection Officer	(a) Correctly perform the role of a coordinating Protection Officer	NGE 238

pre-release

**UNIT NWTC 112C This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing TOA working.**

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria At the end of training the person must be able to:	Reference
1. Use a Track Occupancy Authority (TOA)	(a) state the function and general requirements of a TOA (b) identify when a TOA does not give exclusive occupancy (c) define the limits of a TOA (d) obtain a TOA (e) follow the correct procedure to obtain a TOA for a portion of line where a TWA is current (f) fulfil the duties and responsibilities of a Protection Officer while work is being done under a TOA (g) follow the correct procedure to protect a TOA possession: <ul style="list-style-type: none"> <li>• in areas where half pilot staffs are provided</li> <li>• where there is a single fixed worksite</li> <li>• where there are multiple fixed worksites</li> </ul> (h) follow the correct procedure to obtain a TOA within yard limits at an attended location (i) obtain an extension of time (j) identify the types of rail traffic permitted within the limits of the TOA (k) complete relevant documentation and maintain appropriate written records (l) use approved means to protect the worksite (m) communicate with the nominated people at the appropriate time (n) follow the correct procedure to fulfil a TOA and return the track to service (o) follow the correct procedure to protect multiple worksites in a TOA or an LPA (p) Follow the correct procedure to protect worksites within 500m from the limits of an LPA (q) follow correct procedure to cancel a TOA if work is not commenced or work is not completed, and track returned to service	NWT 304 NPR 701 NPR 707 NPR 708 NPR 709 NPR 710 NPR 712 NPR 726 NPR 002 NPR 014 NRF 002 NRF 014
2. Perform work that affects traction return currents or track-circuits	(a) obtain the appropriate authority prior to commencing work that affects traction return currents or track-circuits (b) ensure that an Electrical Representative or a Signals Maintenance Engineer is at the worksite at the appropriate times (c) follow the correct procedure if there are broken or disconnected electrical cables that connect a substation to a rail	NWT 318 NPR 013 NRF 013

Element	Performance criteria	Reference
At the end of training the person must be able to:		
3. Use an Infrastructure Booking Authority (IBA)	(a) follow the correct procedure to advertise infrastructure work (b) compile an Infrastructure Booking Authority form (NRF 003) at the appropriate time (c) follow the correct procedures to submit and keep copies of completed forms (d) follow the correct procedure to certify infrastructure that has been installed or removed (e) follow the correct procedure to book infrastructure back into use (f) follow the correct procedure to use uncommissioned infrastructure	NWT 312 NPR 704 NPR 003 NRF 003
4. Direct work train operation in a TOA or LPA area	(a) identify when an authority is needed to operate a work train (b) identify the limits within which a work train must be piloted (c) pilot a work train (d) fulfil the role of the Protection Officer to manage the operation of a work train in a worksite	NWT 314 NPR 700 NPR 701 NPR 710
5. Obtain the correct authority for a track vehicle to travel	(a) identify the authority needed to travel a track vehicle (b) obtain authority for a track vehicle to enter or be placed on a running line at the appropriate time	NWT 304 NWT 316 NPR 748

**UNIT NTRC 112C This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Train Working Network Rules and Network Procedures when implementing TOA working.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Ensure the safe movement of rail vehicles within yard limits	(a) identify who authorises rail traffic movements on a running line within yard limits (b) ensure that shunting movements within shunting yards and sidings are carried out safely (c) identify yard limits in Rail Vehicle Detection (RVD) territory	NTR 418 NPR 721

**UNIT NSYC 112C This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when implementing TOA working.**

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Use the pilot staff working method of special working	(a) describe the principles of pilot staff working (b) describe the function and features of the half pilot staff or pilot staff (c) identify the limits of a pilot staff section	NSY 516 NPR 725 NPR 726

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) rail traffic density</li> </ul>
Equipment	Variation in equipment types might include but not be limited to: <ul style="list-style-type: none"> <li>(a) two-way radios, mobile phones, trackside phones</li> <li>(b) point clip types</li> </ul>
Train types	Train types may include but not be limited to: <ul style="list-style-type: none"> <li>(a) work trains</li> <li>(b) track machines</li> <li>(c) other trains</li> </ul>
Trackside signage	All trackside signage

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	2	2	1

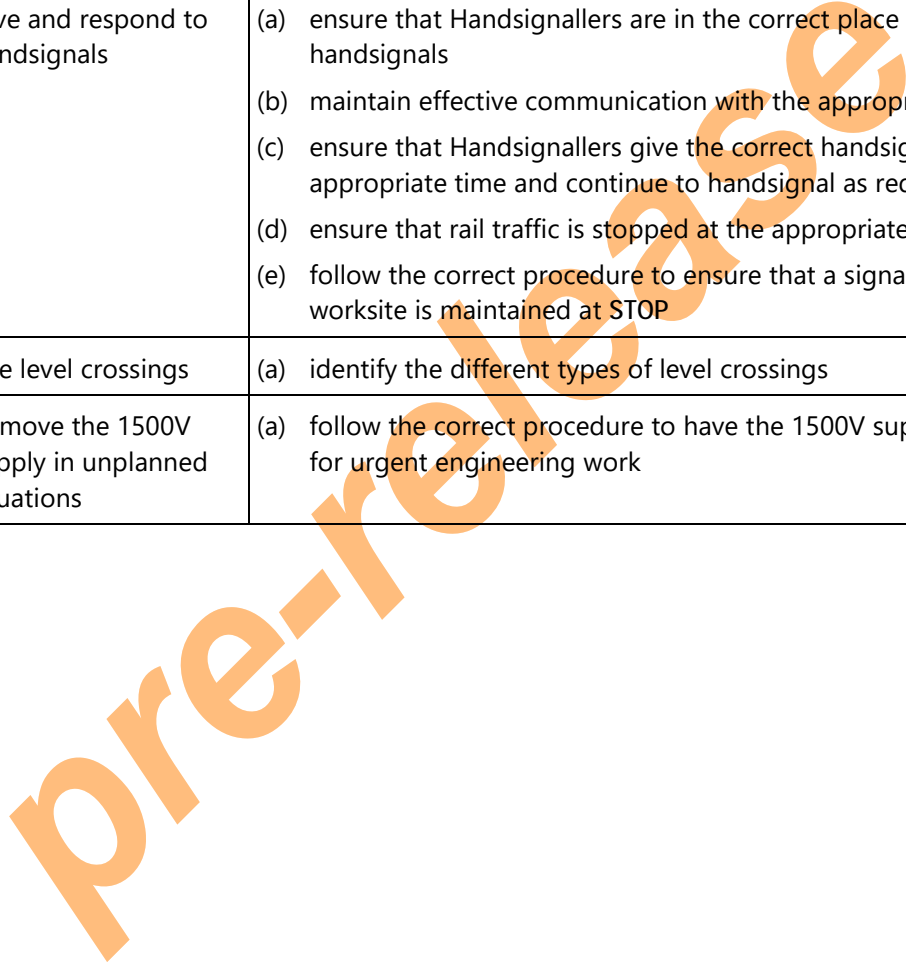
pre-release

# C112D Implement TWA

**UNIT NGE C 112D** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when implementing TWA working.

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Give and respond to handsignals	(a) ensure that Handsignallers are in the correct place to give handsignals (b) maintain effective communication with the appropriate people (c) ensure that Handsignallers give the correct handsignals at the appropriate time and continue to handsignal as required (d) ensure that rail traffic is stopped at the appropriate time (e) follow the correct procedure to ensure that a signal protecting a worksite is maintained at STOP	NGE 202 NPR 702 NPR 721
2. Use level crossings	(a) identify the different types of level crossings	NGE 216
3. Remove the 1500V supply in unplanned situations	(a) follow the correct procedure to have the 1500V supply removed for urgent engineering work	NGE 228 NPR 714



**UNIT NWTC 112D This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing TWA working.**

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria At the end of training the person must be able to:	Reference
1. Use a Track Work Authority (TWA)	(a) state the function and general requirements of a TWA (b) obtain a TWA (c) fulfil the duties and responsibilities of the Protection Officer during TWA working (d) follow the correct procedures to use Lookouts (e) correctly place inner and outer Handsignalers when fixed signals are used to protect a worksite (f) correctly place inner and outer Handsignalers when fixed signals are not used to protect a worksite (g) correctly place Handsignalers to protect multiple worksites (h) use approved means to protect the worksite (i) follow the correct procedure to establish, work and remove a clearance location (j) follow the correct procedure to reduce the number of entry points to a worksite (k) manage train approaches to worksites (l) manage train transits through worksites (m) compile a worksite warning form (n) manage rail traffic on adjacent, converging and terminal lines, if necessary (o) move to a safe place when rail traffic approaches (p) maintain appropriate written records (q) follow the correct procedure to fulfil a TWA and return the track to service	NWT 306 NPR 702 NPR 707 NPR 708 NPR 709 NPR 712 NPR 721 NPR 724 NRF 011 NPR 015 NPR 016 NPR 017 NRF 011 NRF 015D NRF 016 NRF 017
2. Protect a TWA worksite within a TOA	(a) follow the correct procedure to protect a TWA worksite where a TOA has been issued for a track vehicle journey over a unidirectional portion of line	NWT 304 NWT 306
3. Perform work that affects traction return currents or track-circuits	(a) obtain the appropriate authority prior to commencing work that affects traction return currents or track-circuits (b) ensure that an Electrical Representative or a Signals Maintenance Engineer is at the worksite at the appropriate times (c) follow the correct procedure if there are broken or disconnected electrical cables that connect a substation to a rail	NWT 318 NPR 013 NRF 013

Element	Performance criteria	Reference
At the end of training the person must be able to:		
4. Use an Infrastructure Booking Authority (IBA)	(a) follow the correct procedure to advertise infrastructure work (b) compile an Infrastructure Booking Authority form (NRF 003) at the appropriate time (c) follow the correct procedures to submit and keep copies of completed forms (d) follow the correct procedure to certify infrastructure that has been installed or removed (e) follow the correct procedure to book infrastructure back into use (f) follow the correct procedure to use uncommissioned infrastructure	NWT 312 NPR 704 NPR 003 NRF 003
5. Use trackside signage	(a) interpret temporary speed signs (b) place temporary speed signs in the correct position relative to a worksite	NSG 604 NPR 713

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) rail traffic density</li> </ul>
Equipment	Variation in equipment types might include but not be limited to: <ul style="list-style-type: none"> <li>(a) two-way radios, mobile phones, trackside phones</li> <li>(b) point clip types</li> </ul>



Variable	Scope
Train types	Train types may include but not be limited to: (a) work trains (b) track machines (c) other trains
Trackside signage	All trackside signage

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	2	2	1

pre-release

# C112E Implement LPA

**UNIT NGE 112E** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when implementing LPA working.

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
1. Use level crossings	(a) identify the different types of level crossings	NGE 216

pre-release

**UNIT NWTC 112E This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when implementing LPA working.**

All elements and standards as for Coordinate and manage track protection, plus the following:

Element	Performance criteria At the end of training the person must be able to:	Reference
1. Use a Local Possession Authority (LPA)	(a) state the function and general requirements of an LPA (b) obtain an LPA (c) complete relevant documentation and maintain appropriate written records (d) identify the types of vehicle permitted within the LPA (e) use approved means to protect the area of track affected by work under an LPA in: <ul style="list-style-type: none"> <li>• unidirectional line areas</li> <li>• bidirectional line areas</li> </ul> (f) fulfil the duties and responsibilities of a Protection Officer during work under an LPA (g) fulfil the duties and responsibilities of a Possession Protection Officer during work under an LPA (h) coordinate the establishment, management and removal of individual worksites within LPA limits (i) follow the correct procedure if a TWA has been authorised for the portion of line adjoining an LPA (j) follow the correct procedure to protect an LPA possession in areas where half pilot staffs are provided (k) identify where a work train or track vehicle needs to be piloted (l) follow the correct procedure to fulfil an LPA and return the track to service: <ul style="list-style-type: none"> <li>• for the entire portion of track</li> <li>• progressively for one or more portions of track</li> </ul> (m) follow the correct procedures to cancel an LPA if work is not commenced or work is not completed and track returned to service	NWT 302 NPR 700 NPR 707 NPR 708 NPR 709 NPR 710 NPR 712 NPR 721 NPR 015 NRF 015A
2. Perform work that affects traction return currents or track-circuits	(a) obtain the appropriate authority prior to commencing work that affects traction return currents or track-circuits (b) ensure that an Electrical Representative or a Signals Maintenance Engineer is at the worksite at the appropriate times (c) follow the correct procedure if there are broken or disconnected electrical cables that connect a substation to a rail	NWT 318 NPR 013 NRF 013

Element	Performance criteria	Reference
At the end of training the person must be able to:		
3. Use an Infrastructure Booking Authority (IBA)	(a) follow the correct procedure to advertise infrastructure work (b) compile an Infrastructure Booking Authority form (NRF 003) at the appropriate time (c) follow the correct procedures to submit and keep copies of completed forms (d) follow the correct procedure to certify infrastructure that has been installed or removed (e) follow the correct procedure to book infrastructure back into use (f) follow the correct procedure to use uncommissioned infrastructure	NWT 312 NPR 704 NPR 003 NRF 003
4. Direct rail traffic operation in an LPA area	(a) identify when an authority is needed to operate rail traffic (b) identify the limits within which rail traffic must be piloted (c) pilot rail traffic (d) fulfil the role of the Possession Protection Officer to manage the operation of a work train in a worksite	NWT 314 NWT 316 NPR 700 NPR 701 NPR 710 NPR 721

**UNIT NSYC 112E This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Systems of Safeworking and Special Working Network Rules and Network Procedures when implementing LPA working.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Use the pilot staff working method of special working	(a) describe the principles of pilot staff working (b) describe the function and features of the half pilot staff or pilot staff (c) identify the limits of a pilot staff section	NSY 516 NPR 725 NPR 726

## Variables

Variable	Scope
Track environment	<p>The track environment may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single lines</li> </ul> </li> <li>(e) different signal types, including but not limited to:                             <ul style="list-style-type: none"> <li>• controlled signals</li> <li>• automatic signals</li> </ul> </li> <li>(f) track-circuited and non-track-circuited lines</li> <li>(g) operation near electrical equipment or wiring</li> <li>(h) rail traffic density</li> </ul>
Equipment	<p>Variation in equipment types might include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) two-way radios, mobile phones, trackside phones</li> <li>(b) point clip types</li> </ul>
Train types	<p>Train types may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) work trains</li> <li>(b) track machines</li> <li>(c) other trains</li> </ul>
Trackside signage	All trackside signage

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
3	3	3	3	2	2	1

# C112F Operate Automatic Track Warning Systems

**UNIT NWTC 112F** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when operating Automatic Track Warning Systems

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Identify and describe the main features of an ATWS	(a) identify and describe the function of the following ATWS components: <ul style="list-style-type: none"> <li>• sensor</li> <li>• transmitter</li> <li>• warning unit</li> <li>• battery</li> <li>• test plate</li> </ul>	NPR 752
2. identify minimum requirements	(a) identify the maximum number of sensors that can be used (b) identify considerations that must be taken into account when positioning sensors (c) identify the minimum distance sensors can be installed from: <ul style="list-style-type: none"> <li>• points, turnouts, check rail and guard rail</li> <li>• equipment connected to the rail</li> <li>• platforms or relevant car markers</li> <li>• approach side of fixed signals.</li> </ul> (d) identify the minimum distance apart transmitters must be placed	NPR 708 NPR 751 NPR 752
3. Correctly install equipment	(a) correctly install sensors (b) correctly setup junction box and transmitter (c) correctly setup warning unit	NPR 751 NPR 752
4. Test equipment	(a) calibrate and test each sensor (b) synchronise the transmitter with the warning unit (c) verify the location of a sensor (d) perform first train check	NPR 752
5. Operate equipment	(a) monitor warning unit display and respond to any faults (b) follow correct procedure to cancel warning (c) follow correct procedure when 2nd rail traffic activates sensor before first warning is cancelled (d) follow correct procedure to activate emergency warning	NPR 752

Element	Performance criteria	Reference
	At the end of training the person must be able to:	
6. Respond and rectify faults	(a) identify and interpret warning or fault indications (b) follow the correct procedure to respond to a false activation (c) follow the correct procedure to ensure workers are clear of the Danger Zone (d) follow the correct procedure to cancel warnings and resume work	NPR 752
7. Remove and use an X, Y or Z key	(a) identify the correct X, Y or Z key to use (b) follow the correct procedure to remove an X, Y or Z key (c) follow the correct procedure to restore an X, Y or Z key	NPR 708

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single line</li> </ul> </li> <li>(e) track-circuited and non-track-circuited lines</li> <li>(f) operation near electrical equipment or wiring</li> <li>(g) rail traffic density</li> </ul>
Equipment	Variation in equipment may include but not limited to: <ul style="list-style-type: none"> <li>(a) sensor</li> <li>(b) transmitter</li> <li>(c) warning unit</li> <li>(d) battery</li> <li>(e) test plate</li> </ul>

# C112G Signal key switches

**UNIT NWTC 112G This unit describes the competence, (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when using signal key switches.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Implement Signal Key Switch Blocking (SKS)	(a) identify the type of work can be undertaken in the Danger Zone using Signal Key Switch Blocking (b) correctly identify the worksite limits applicable to a signal key switch (c) perform the duties of a Protection Officer when work is being done using a signal key switch as a safety measure (d) correctly compile Worksite Protection Plan (NRF 015D) when implementing SKS Blocking (e) communicate with the Signaller and Handsignaller at the appropriate time (f) state when a Lookout and easily reached Safe place is necessary when implementing SKS Blocking (g) identify when and where a worksite warning sign must be placed (h) identify when workers may enter the Danger Zone (i) identify the precautions that must be taken if an intermediate siding is located between the protecting signal and worksite (j) follow the correct procedure if the protecting signal fails to display proceed after the key has been restored (k) follow the correct procedure to have the portion of track returned to service (l) correctly remove protection and end SKS Blocking	NWT 320 NPR 751 NPR 753 NPR 754 NPR 015 NRF 015D



Element	Performance criteria	Reference
At the end of training the person must be able to:		
2. Operate a signal key switch	(a) describe purpose and function a signal key switch (b) describe how you identify the worksite limits applicable to a signal key switch (c) perform the duties of a Handsignaller when work is being done using a signal key switch as a safety measure (d) state when the key can be removed from a signal key switch (e) state when the key can be restored to a signal key switch when: <ul style="list-style-type: none"> <li>• allowing a train to proceed through a worksite</li> <li>• ending protection using a signal key switch</li> </ul> (f) communicate with the Protection Officer and Signaller at the appropriate time (g) follow the correct procedure if the protecting signal does not clear within the expected time after restoring the key (h) follow the correct procedure if the protecting signal does not display a STOP indication when the key is removed	NWT 320 NPR 753 NPR 754
3. Use a Signal key switch during Track Work Authority (TWA)	(a) identify when a signal key switch can be used to protect a Track Work Authority (TWA) (b) describe the procedure to authorise rail traffic past an inner Handsignaller at a protecting signal fitted with a key switch when rail traffic is to proceed: <ul style="list-style-type: none"> <li>• at normal speed</li> <li>• at caution</li> <li>• under special conditions</li> </ul> (c) describe the procedure to authorise rail traffic past an outer Handsignaller at a protecting signal fitted with a key switch (d) follow the correct procedure if the protecting signal fails to display proceed after the key has been restored (e) correctly remove protection and fulfil TWA	NWT 306 NPR 754

## Variables

Variable	Scope
Track environment	The track environment may include but not be limited to: <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) operation near electrical equipment or wiring</li> <li>(e) rail traffic density</li> </ul>

Variable	Scope
Equipment	Variation in equipment may include but not limited to: (a) two-way radios, mobile phones, trackside phones

### Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	2	2	2	2

pre-release

# C113 Perform handsignalling at level crossings

**UNIT NGE 113** This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the General Network Rules and Network Procedures when handsignalling at level crossings.

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Take appropriate safety precautions when walking in the Danger Zone	(a) identify the Danger Zone and safe places (b) explain what is meant by 'walking in the Danger Zone' and when it is permissible to do so (c) take appropriate safety precautions when walking in the Danger Zone (d) describe the safety issues to be considered when placing and removing protection	NGE 200 NPR 709
2. Report a Condition Affecting the Network (CAN)	(a) follow the correct procedure to report conditions that can or do affect the safety of operations in the Network at the appropriate time	NGE 206 NPR 721
3. Identify and describe the main features of level crossings	(a) take appropriate action if there is faulty or damaged equipment or gates at a level crossing (b) identify the types of level crossings	NGE 216
4. Test Type F level crossings	(a) identify when testing is conducted (b) state who is authorised to suspend testing (c) state who authorises testing of level crossings (d) perform on-site tests of level crossings (e) follow the correct procedure to report and record the outcomes of testing	NGE 218 NPR 715 NPR 716 NPR 717 NPR 718
5. Manually Operate Type F level crossings	(a) isolate Type F level crossing warning equipment where a Master Emergency switch is not provided (b) isolate Type F level crossing warning equipment where a Master Emergency switch is provided (c) take appropriate action when level crossing booms are damaged or defective (d) manage rail traffic over a isolated Type F level crossing (e) follow the correct procedure to restore Type F level crossing equipment to normal operation	NGE 218 NPR 715 NPR 716 NPR 717

Element	Performance criteria	Reference
At the end of training the person must be able to:		
6. Take appropriate safety precautions when near electrical infrastructure (if applicable)	(a) identify the main components of electrical infrastructure (b) describe the safety issues to be considered when assessing the risk of working near electrical equipment or wiring (c) identify safe working distances from electrical equipment and wiring (d) take appropriate safety precautions when near 1500V overhead wiring (e) follow (or describe) the correct procedure if: <ul style="list-style-type: none"> <li>• they suspect a problem in the electrical infrastructure</li> <li>• there is a fire near the 1500V supply</li> <li>• there are fallen electrical wires</li> <li>• foreign objects are caught in or touching the overhead wiring</li> </ul>	NGE 222

**UNIT NWTC 113 This unit describes the competence (knowledge, skills, values and attitudes) that must be acquired to apply the Work on Track Network Rules and Network Procedures when handsignalling at level crossings.**

Element	Performance criteria	Reference
At the end of training the person must be able to:		
1. Work safely in the Rail Corridor	(a) identify who is responsible for assessing worksite safety and implementing protection (b) identify when work in the Danger Zone can begin (c) wear approved high-visibility clothing (d) maintain effective communication	NWT 300 NPR 721

## Variables

Variable	Scope
Track environment	<p>The track environment may include but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) varying weather conditions</li> <li>(b) varying track geography, including tunnels, cuttings, grades, etc</li> <li>(c) day or night operation</li> <li>(d) different line types, including but not limited to:                             <ul style="list-style-type: none"> <li>• converging lines</li> <li>• terminal lines</li> <li>• adjacent lines</li> <li>• bidirectional lines</li> <li>• single line</li> </ul> </li> <li>(e) track-circuited and non-track-circuited lines</li> <li>(f) operation near electrical equipment or wiring</li> <li>(g) rail traffic density</li> <li>(h) road traffic density</li> <li>(i) crossing equipment fitted with Master Emergency switches</li> <li>(j) crossing equipment fitted with individual isolating switches</li> </ul>

## Key competency levels

Collect, analyse and organise information	Communicate ideas and information	Plan and organise activities	Work with others and in teams	Use mathematical ideas and techniques	Solve problems	Use technology
2	2	2	1	1	2	2