

Title	Demonstrate knowledge of the Automatic Signalling Rules system for rail operations		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: demonstrate knowledge of the principles of the ASR system; describe the procedures for the management of rail vehicle movements using the ASR system; demonstrate knowledge of procedures for the management of ASR contingencies; and describe procedures for handling system failures on an ASR section.
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Classification	Rail Transport > Rail Operations
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Available grade	Achieved
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Guidance Information

- 1 Recommended skills and knowledge for entry:
Unit 19286, *Demonstrate advanced knowledge of railway signals*.
- 2 Assessment against this unit standard must be carried out within the context of an organisation operating under a current, valid Rail Licence issued in accordance with the provisions of the Railways Act 2005. The organisation's operating rules, codes, and instructions, referred to in this unit standard, are those the organisation has in place to meet the requirements of the Rail Licence.
- 3 Legislation relevant to this unit standard includes:
Health and Safety at Work Act 2015.
Railways Act 2005 and subsequent amendments.
- 4 Definitions

ASR stands for Automatic Signalling Rules and refers to a train signalling system which enables complete control of the points and signals over a section of line from a control centre.

ASR personnel refers to people performing the function of train controller for an ASR track section, or an ASR panel operator.

Organisational procedures refer to documents that include: operating rules, codes, instructions, and practices; equipment operating instructions; documented quality management systems; and health and safety requirements.

Rail vehicle refers to any flanged wheeled vehicle which uses the railway line.

Setting back, in the context of this unit standard, refers to:
a movement made in a double track section which opposes the prescribed direction of travel; or
a movement made in a single line section that opposes the direction of travel established upon entering the section.

Train Control is a centre from where the movements of all trains in a specified area are brought under the direction of a Train Control Officer.

5 Assessment information

All activities and evidence must be in accordance with organisational procedures.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the principles of the ASR system.

Performance criteria

- 1.1 Terminology associated with the ASR system is explained.
- Range block section, intermediate section, interlocked station.
- 1.2 The objective of a centrally controlled track management system is described.
- 1.3 Levels of authorisation for the control of train movements within the ASR system are identified.
- Range train control.
- 1.4 Modes of communication between train personnel and train control personnel are identified.

Outcome 2

Describe the procedures for the management of rail vehicle movements using the ASR system.

Performance criteria

- 2.1 Steps for authorising train movement through a stop signal are described.
- Range absolute, permissive.
- 2.2 Circumstances in which a departure signal can be passed at stop are described.
- Range ASR personnel and driver responsibilities – documentation, subsequent signal displays, track examination, safe intervals, train handover.
- 2.3 Methods used to arrange a rail vehicle crossing in an ASR section are described.
- 2.4 Methods used to arrange a change in rail vehicle direction on an ASR route are described.

- 2.5 Restrictions on setting back in an ASR section are described.
- 2.6 Actions to take in the event of a train being divided on an ASR section are described.

Range accidental, planned.

Outcome 3

Demonstrate knowledge of procedures for the management of ASR contingencies.

Performance criteria

- 3.1 Means of assisting a disabled rail vehicle in a section of an ASR route are described.

Range incident, disabled train with no following train, disabled train with following train, stalled train.

- 3.2 Actions to take in response to an ASR section being obstructed by a hazardous event are described.

Range hazardous events may include but are not limited to – flood, landslip, subsidence, vehicle(s) on the track, act of malice.

- 3.3 Steps for the protection of an accident or obstruction site on an ASR section are described.

Outcome 4

Describe procedures for handling system failures on an ASR section.

Range signal systems failure, communication systems failure.

Performance criteria

- 4.1 Procedures for the type of system failure are described.
- 4.2 A method for advancing rail vehicles and implementing an alternative safe working system is described.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	21 March 2002	31 December 2022
Review	2	20 November 2009	31 December 2022
Review	3	29 April 2021	N/A

Consent and Moderation Requirements (CMR) reference

0013

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.