

UGL REGIONAL LINX



CERTIFICATION PROCESS FOR RAIL VEHICLES

CRN-STD-ROL-713026361-

CRN RS 019

**LINKING
COMMUNITIES.**

**CONNECTING
CUSTOMERS.**



Table of Contents

Document Control.....ii

 Summary of changes from previous versionii

1 Introduction..... 1

 1.1 About this Standard 1

 1.2 General Guidance 1

 1.3 Rolling Stock Standards Suite 2

 1.4 Rolling Stock Forms 2

 1.5 Vehicle Listings in the TOC Manual 3

 1.6 Standards Applicability Table 3

2 Review Process..... 4

 2.1 Process Flowchart 4

 2.2 Registration Deliverables 5

 2.3 Change of Rail Vehicle Design or Performance..... 5

 2.4 Change of Rail Vehicle Operational Details 5

 2.5 Testing of Rail Vehicles 5

 2.6 Rail Vehicle Design 6

 2.7 Terms of Authorisation 6

Document Control

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Revision	Issue Date	Revision Description
1.0	11.11.2021	UGLRL Operational Standards Template applied
2.0	29.11.2021	First approved and issued UGLRL version
3.0	01.03.2024	See below

Summary of changes from previous version

Section	Summary of change
All	Rewritten as a first point of reference and user guide for CRN users. Transferred glossary to TOC 01. Simplified process flowchart. Removed forms and compliance checklists already included in RF-00x registration forms.

1 Introduction

1.1 About this Standard

This standard concerns registration of rollingstock on the Country Regional Network (CRN) and is recommended as a first source of reference for users seeking to determine the specific requirements and forms applicable to their need.

Rollingstock includes any items designed to intended to run on CRN track, such as Locomotives, Freight Wagons, Road Rail Vehicles, Trolleys, Trailers, Portable Plant and Maintenance Machines.

A CRN glossary can be found in Section 1 of the CRN TOC Manual.

1.2 General Guidance

CRN standards were developed from standards originally issued by the Rail Infrastructure Corporation to the ARTC for the technical management of rolling stock operating on the NSW country and defined interstate network. Those standards were further enhanced and updated using relevant data from RailCorp interface standards, the ROA Manual and the Australian Standards for Rolling Stock (including RISSB series standards).

CRN standards are prepared with an awareness of known rail vehicle risks and seek to address each of those risks through their requirements but should be considered in tandem with related national or local standards, industry guidelines and codes of practice.

In any CRN standard:

- When the words “shall” or “must” are used, the requirements are considered mandatory with evidence to be made available to demonstrate compliance.
- When the word “should” is used, there is an expectation that compliance is achieved and evidence to demonstrate this is available. If compliance has not been achieved, the applicant must be able to explain why and demonstrate what controls are in place to reduce any resulting risk. UGLRL may also apply operational restrictions to the vehicle.
- When the word “may” is used, the requirements shall be read as advisory. If such a clause is not compliant, the applicant may be asked to provide justification.

The standards apply to all new and substantially modified rail vehicles applying to operate on the CRN after 30th January 2022. Vehicles with CRN registration (without a time limit) in place at this date will be considered as deemed to comply with acceptance requirements. Older vehicles with historical or heritage background may not comply completely with requirements but will be assessed on a SFAIRP (So Far As Is Reasonably Practical) basis considering design, operational history, proposed use and similarity with registered vehicles.

Rail vehicles that do not fully comply with the standards and legislative requirements will be subject to critical review and in some cases may be permitted to operate under nominated restrictions as determined by the CRN Principal Rolling Stock & Plant Engineer or their delegate.

In this standard, the terms “Owner”, “Operator” and “Owner/Operator” are used. They refer to the legal owner of the rolling stock, the operator (or lessee) using that rolling stock on a day-to-day basis, or both where owner and operator are the same organisation. A TOC listing can be under either Owner or Operator. More details on the responsibilities of these entities is given in the vehicle standards RS-001 through RS-007.

1.3 Rolling Stock Standards Suite

The CRN Rolling Stock Standards Suite covers base vehicle requirements, interface requirements, and process requirements for rolling stock operating on the CRN. Only some of these documents will apply to each vehicle application. The following documents form the standards suite and may be read in conjunction with the Standards Lookup Table in this document. Note: RS 009, RS 015 and RS 017 are not currently in use.

Standard	Title
RS 001	Minimum Operating Requirements for Locomotives
RS 002	Minimum Operating Requirements for Freight Vehicles
RS 003	Minimum Operating Requirements for Locomotives Hauled Passenger Vehicles
RS 004	Minimum Operating Requirements for Multiple Unit Trains
RS 005	Minimum Operating Requirements for Rail Bound Infrastructure Maintenance Vehicles
RS 006	Minimum Operating Requirements for Road/Rail Infrastructure Maintenance Vehicles
RS 007	Minimum Operating Requirements for Rail Infrastructure Maintenance Trolleys, Trailers and Portable Plant
RS 008	General Interface Requirements for Rolling Stock
RS 010	Vehicle Acceptance Test and Inspection Requirements
RS 011	Rolling Stock Wheel Defect Limits
RS 012	Rail Vehicle Weighing Requirements
RS 013	Driver Safety System Requirements for Rolling Stock
RS 014	Automatic Equipment Identification Requirements
RS 016	Road Rail Vehicle, Trailer, Trolley and Portable Plant Certification & Re-Certification
RS 018	Communication System Requirements
RS 019	Certification Requirements for Rail Vehicles (<i>This Standard</i>)

1.4 Rolling Stock Forms

The CRN Rolling Stock Forms are used by the applicant to describe vehicle details, compliance evidence and Owner/Operator arrangements.

Form	Title
RF 001	Locomotive Certification Request Form
RF 002	Freight Vehicle Certification Request Form
RF 003	Locomotive Hauled Passenger Vehicle Certification Request Form
RF 004	Multiple Unit Train Certification Request Form
RF 005	Rail Bound Infrastructure Maintenance Vehicle Certification Request Form
RF 006	Road Rail Vehicle Certification Request Form
RF 007	Trolley, Trailer and Portable Plant Certification Request Form

1.5 Vehicle Listings in the TOC Manual

Vehicles are categorised according to their nominal listing position in the TOC Manual as follows:

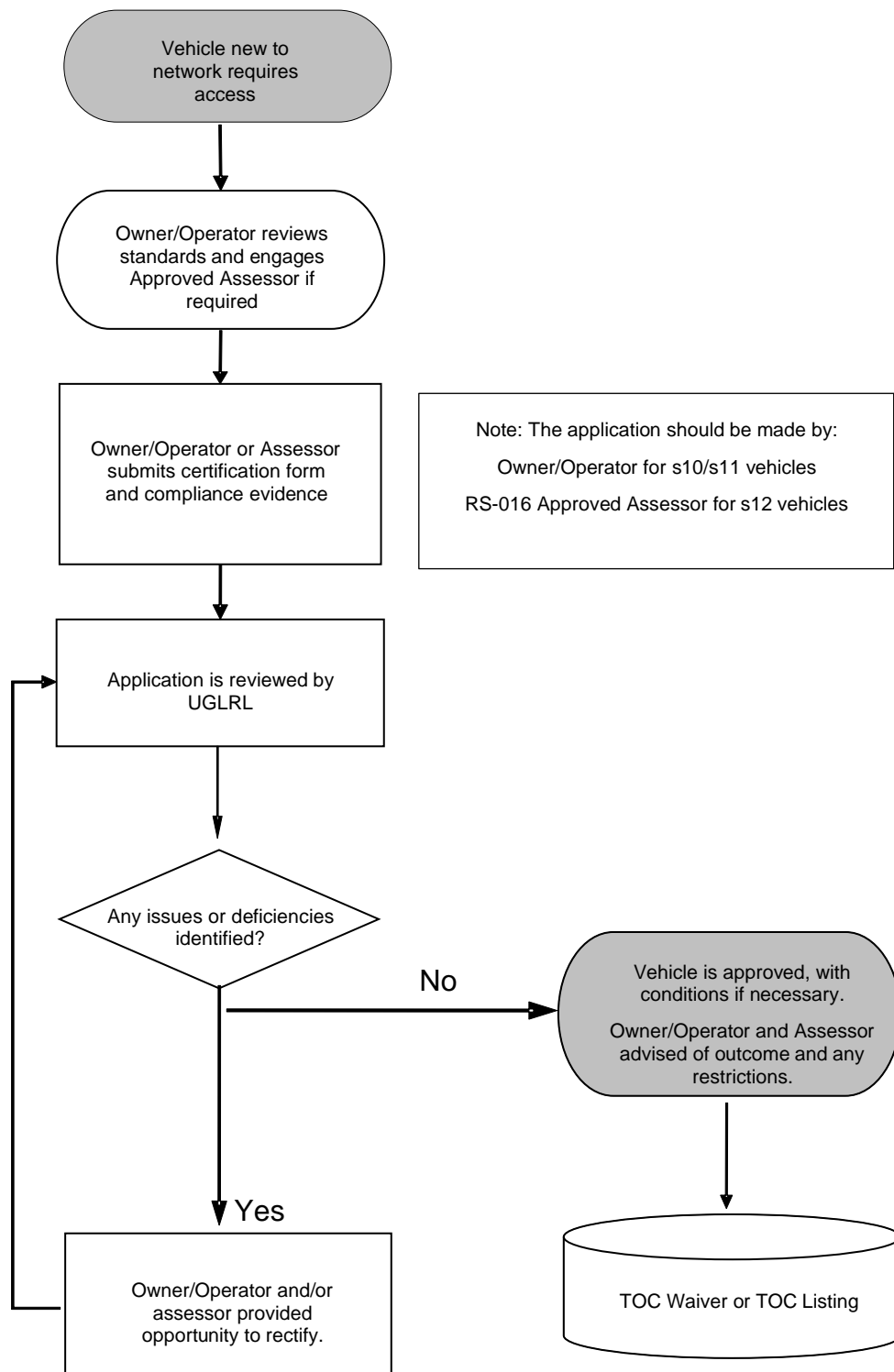
TOC Reference	Description
Section 10	Locomotives, Freight Wagons, and Hauled / Self-Propelled Passenger Cars
Section 11	Track Maintenance Vehicles
Section 12	Road Rail Vehicles, Trailers, Trolleys & Portable Plant

1.6 Standards Applicability Table

CRN Standards	Locomotives	Freight Vehicles	Locomotive Hauled Passenger Vehicles	Multiple Unit Trains	Infrastructure Maintenance Vehicles	Road/Rail Vehicles	Trolleys, Trailers & Portable Plant
✓ denotes that standard applies to that vehicle x denotes that the standard does not apply to that vehicle							
CRN RS 001 – Minimum Operating Requirements for Locomotives	✓	x	x	x	x	x	x
CRN RS 002– Minimum Operating Requirements for Freight Vehicles	x	✓	x	x	x	x	x
CRN RS 003 - Minimum Operating Requirements for Locomotive Hauled Passenger Vehicles	x	x	✓	x	x	x	x
CRN RS 004 - Minimum Operating Requirements for Multiple Unit Trains	x	x	x	✓	x	x	x
CRN RS 005 - Minimum Operating Requirements for Rail-Bound Infrastructure Maintenance Vehicles	x	x	x	x	✓	x	x
CRN RS 006 - Minimum Operating Requirements for Road-Rail Infrastructure Maintenance Vehicles	x	x	x	x	x	✓	x
CRN RS 007 - Minimum Operating Requirements for Infrastructure Maintenance Trolleys, Trailers and Portable Plant	x	x	x	x	x	x	✓
CRN RS 008 - General Interface Requirements for Rolling Stock	✓	✓	✓	✓	✓	✓	✓
CRN RS 010 - Vehicle Acceptance Test and Inspection Requirements	✓	✓	✓	✓	✓	✓	✓
CRN RS 011 - Rolling Stock Wheel Defect Limits	✓	✓	✓	✓	✓	✓	x
CRN RS 012 - Rail Vehicle Weighing Requirements	✓	x	x	✓	✓	✓	x
CRN RS 013 - Driver Safety System Requirements for Rolling Stock	✓	x	x	✓	✓	x	x
CRN RS 014 - Automatic Equipment Identification	✓	✓	✓	✓	✓	x	x
CRN RS 016 - Road-Rail Vehicle, Trolley-Trailer and Portable Plant Certification and Recertification	x	x	x	x	x	✓	✓
CRN RS 018 – Communication System Requirements	✓	x	✓	✓	✓	✓	x
CRN RS 019 – Certification Requirements for Rail Vehicles	✓	✓	✓	✓	✓	✓	✓

2 Review Process

2.1 Process Flowchart



Vehicles may be listed on a TOC Waiver until the next TOC manual review cycle at which point they transfer from the Waiver to the Manual. The Waiver may specify certain actions need to be closed (e.g. testing) before transfer is permitted.

2.2 Registration Deliverables

To apply for acceptance of a new rail vehicle the vehicle owner/operator shall arrange for the following to be transmitted to the CRN Principal Rolling Stock & Plant Engineer:

- The relevant vehicle registration form (RF 00x), completed by
 - The Owner/Operator for Section 10 and Section 11 vehicles,
 - An RS-016 listed assessor for Section 12 vehicles.
- All supporting evidence (test reports, photos, etc).

Once a vehicle/vehicle type has been approved, details of the vehicle/s will then be published in a TOC Waiver or the appropriate Section of the TOC Manual, along with any operating conditions.

Vehicle acceptance is for the CRN only and does not apply to other networks. Acceptance on other networks is not accepted as a basis for CRN registration.

2.3 Change of Rail Vehicle Design or Performance

Where a rail vehicle has been modified or is proposed to be modified, such that the modification may impact the vehicle's performance, CRN registration entry details or compliance to CRN standards, then the Owner/Operator must advise the CRN Principal Rolling Stock & Plant Engineer and apply for vehicle re-approval.

This applies to any physical modifications that may affect vehicle on-track performance, such as flexibility of a vehicle structure, suspension stiffness, braking performance, increase in adhesion performance, type of vehicle loading, increased axle load and vehicle speed increase.

2.4 Change of Rail Vehicle Operational Details

Where a vehicle Owner/Operator proposes an operational change to the rail vehicle without altering the vehicle design, the Owner/Operator shall use the appropriate part of the registration form (RF 00x) to notify CRN Principal Rolling Stock & Plant Engineer. This includes changes to vehicle identifier, class, code, number or CRN Owner/Operator listing.

2.5 Testing of Rail Vehicles

New or substantially modified rail vehicles shall successfully undergo type testing in accordance with CRN Standard CRN RS 010.

Tests conducted on other networks should be communicated with the CRN in advance to ensure that the outcomes will meet CRN requirements. It should not be assumed that CRN requirements are the same as other networks. Failure to do this may result in additional testing being required.

Dynamic testing on the CRN shall not be carried out without prior approval of the CRN Principal Rolling Stock & Plant Engineer and the issue of an appropriate CRN TOC Waiver for testing purposes. All static tests must be satisfactorily completed before the rail vehicle will be permitted to conduct dynamic testing on the CRN. An application for testing must be accompanied by a Test Plan which clearly details times, locations and assessment criteria, alongside operational risks and risk controls. Vehicles under test are not permitted to carry out revenue or commercial service and will be subject to other restrictions as listed on the TOC Waiver.

The CRN Principal Rolling Stock & Plant Engineer reserves the right to:

- be present or have a representative present for each of the tests.
- request the owner/operator to conduct further testing where it is suspected that the vehicle performance has deteriorated or test results are unclear/incomplete.
- have access to all relevant raw test data (this may apply to a number of tests).

Once the CRN Principal Rolling Stock & Plant Engineer is satisfied with the performance of the rail vehicle/s, further testing may be carried out at the discretion of the owner/operator but only with prior notification and agreement of the CRN.

2.6 Rail Vehicle Design

For Section 10 and 11 vehicles, evidence may be required that the design and construction of a rail vehicle has met industry standards and has been reviewed by an independent competent person under a recognised process such as AS7501.

For Section 12 vehicles, provision of an engineering report to verify structural integrity and fitness for purpose is required as detailed in RS-016.

Batch (type) approval of vehicles is considered on a case-by-case basis, depending on identical design and sufficient controls over manufacturing and assembly being demonstrated.

The design and operation of any new rail vehicle shall take into account Occupational Health and Safety, including Human Factors, and is the responsibility of the vehicle owner/operator.

2.7 Terms of Authorisation

Vehicles will only be approved to operate on the CRN under an ONRSR accredited Owner/Operator. Rail vehicle Owner/Operators are responsible for registering with ONRSR each vehicle type they wish to operate on the CRN.

Section 12 vehicles will only be approved to operate on the CRN for a maximum period of 12 months after inspection and must undergo annual re-certification by an approved certifier listed in RS-016. The annual re-certification date will be listed on a physical label, and either TOC Section 12 or a TOC Waiver. For more details, refer to RS-016.

All rail vehicles must have relevant operating details published in the CRN Train Operating Conditions (TOC) Manual. Rail vehicles not published in the CRN Train Operating Conditions manual shall not be operated or moved on the CRN unless special approval is issued via a CRN TOC Waiver. This approval is required for any movement including one-off movements, transfer of 'mothballed' vehicles and testing.

Registration of any vehicle on the CRN is granted on the condition of safe and proper operation of the vehicle by trained, competent operators. It also assumes the implementation of an inspection and maintenance programme that ensures the vehicle maintains or exceeds network compliance standards at all times. Where it is deemed that the condition of a rail vehicle has deteriorated below these minimum requirements, then the authority to operate that vehicle on the CRN may be withdrawn until it can be demonstrated that rail-worthiness has been reinstated.

Rail vehicles with a defect, sufficient for that vehicle to be removed from service, shall be removed from the CRN as soon as practical and notified to the CRN Principal Rolling Stock & Plant Engineer.