

# NZ Transport Agency Policy Concerning the Introduction of Rail Vehicles

## 1. Design standards

1.1. Historically, mechanical design standards were set within the former New Zealand Government Railways and its successors. KiwiRail Freight has in turn inherited much of the background information to these standards, and, as the major network operator, assumed the task of setting and maintaining them. ONTRACK is now the owner of - and access provider to - the National Rail System (NRS) and administers the National Rail System Standards (NRSS), which define minimum standards for all operations on the network, including mechanical interoperability requirements.

1.2. In the co-regulatory approach of the *Railways Act 2005*, the NZ Transport Agency (NZTA) has a role in ensuring that standards and processes are properly developed by rail participants - using a risk-based approach - and that they are described in each safety case that the NZTA approves. Compliance with these standards is monitored through the safety assessment programme. The NZTA has no statutory role in setting or maintaining these standards - they belong to the rail industry - but it does have a responsibility for ensuring that such standards and codes of practice provide reasonable safety outcomes, and that these safety outcomes show continuous improvements where appropriate. It is important to note, however, that once these standards become part of an *approved* safety case, they become legal requirements by virtue of being a safety case requirement.

1.3. KiwiRail Freight railway vehicle design standards and procedures are prescribed in detail in its Design Manual (M3000), which KiwiRail Freight considers to be a proprietary design code, developed and controlled by its mechanical engineering professionals. This manual has been compiled with the knowledge of the standards and practices, such as those garnered from the Australasian Railway Association, the Association of American Railroads, and International Union of Railways/UIC combined with local practice and environmental requirements and thus the M3000 manual is accepted as "good standard railway practice" by railway engineering professionals. This manual is a key element of KiwiRail Freight's safety system.

1.4. M3000 includes required minimum standards for structural strength (crashworthiness).

1.5. There are no other mechanical design codes currently applied in New Zealand. However, other codes could be developed by other operators, and accepted by the NZTA if appropriate due process is followed. For acceptance on the 1068mm gauge NRS, the code would have to be approved by the NRSS Executive who would present the alternative standards to the NZTA for sign-off.

## 2. Ancestor rights

2.1. KiwiRail Freight, Veolia and other operators use a number of older vehicles which do not conform to the design and performance standards defined in KiwiRail Freight's M3000 manual. Such a situation is considered quite normal in any railway, as standards always continue to develop over the life of assets - lives that for rail vehicles may exceed 50 years. A similar situation applies in other transport modes, for example buses built before the latest accessibility standards were applied. Equipment that met the standards at the time of its construction is maintained to those standards and usually permitted to remain in use, despite subsequent changes to design and construction standards for later, similar vehicles - this is often referred to as older equipment having "ancestor" rights.

## 3. Continuous improvement

3.1. The NZTA, in accordance with the *Railways Act 2005*, will be seeking continuous improvement in the safety standards of rail fleets wherever it can be reasonably achieved.

## 4. Acceptance

4.1. The NZTA acceptance of new types of rail vehicles will generally be granted in two stages: 'Type Acceptance' and 'Operational Acceptance.'

## 5. Type Acceptance

5.1. Prior to importation or construction, the operator under whose licence the rail vehicles are to be used should seek agreement from the access provider (e.g. ONTRACK for the NRS) that running rights can be granted, and they should seek a type acceptance from the NZTA. The type acceptance will commit the NZTA to accepting the rail vehicles for use in New Zealand for the purpose declared in the application, subject to:

- Confirmation upon arrival that the rail vehicle/s conform to the details that were described in the application for type approval; and
- Subsequent operational acceptance being granted.

5.2. The application for the type acceptance must contain:

- A general plan and description of the rail vehicles, showing the layout, dimensions, weights, and maximum allowable speed;
- The purpose for which the rail vehicles are to be used;
- Description of where the rail vehicles are to be used;
- Reference to the key safety-related standards and/or specifications to which the rail vehicles are or will be constructed and details to show how the vehicles will meet or exceed those standards (e.g. body construction, brakes, drawgear, running gear, window glass, door mechanisms, fire prevention);
- Sign-off from the appropriate access provider (e.g. ONTRACK for the NRS) that the relevant operational and engineering interoperability standards can be complied with, and that running rights can be granted;
- A comparative risk analysis that demonstrates that the rail vehicles are at least equal to, and preferably better than, other reasonably available alternatives;
- For previously used rail vehicles, an outline of the previous history of the rail vehicles, including the name and location of the manufacturers, and previous operators if available;
- A comparative analysis that shows that when meeting the standards and practices in comparable situations previously, the used equipment met or exceeded current NZ standards;
- An application for a variation to the safety case or safety cases of the rail participants involved in the vehicle's operations.

## 6. Operational Acceptance

6.1. Operational acceptance – which will approve placing the rail vehicles into normal service - will be given by the NZTA after satisfactory evidence has been produced, or suitable inspections made, confirming that:

- The rail vehicles are in good mechanical condition for the intended operations.
- The appropriate access provider has certified that the relevant operational and engineering interoperability standards are being complied with.
- All testing and commissioning has been completed satisfactorily.
- The staff who will be operating, inspecting, and maintaining the rail vehicles have been trained appropriately.

6.2. Note that if type acceptance has not previously been granted, all matters pertaining to type acceptance will also have to be satisfied before an operational acceptance will be considered.

## 7. Previously-used rail vehicles: Additional policies

7.1. Previously-used rail vehicles to be imported into New Zealand will not be considered to have any form of "ancestor" rights in respect of their use in New Zealand. Effectively they will

be treated as a new application and considered on a case-by-case basis for type and operational acceptance. Once accepted, they may be used for the purpose for which they were imported by the licence holder who made the application for their use in New Zealand.

7.2. Later if they are to be used for any other purpose, or transferred to any other operator, the NZTA will require that this new rail participant/s submits a new application to be considered for acceptance.

## **8. General**

8.1. the NZTA further reserves the right to undertake, at any time, a review or special assessment of any or all rail vehicles in accordance with the *Railways Act 2005*, should any event or set of circumstances arise that appear to affect the risk profile of the rail vehicles.

8.2. This policy is not intended to affect an access provider's right to set standards and conditions required for the safe operation of rail vehicles on the track controlled by that access provider. Those standards, and the processes associated with their application, will be detailed in the access provider's safety system, referenced by their safety case.