
New Performance Based Standards

NZ Transport Agency
May 2019

Q&A FOR HEAVY VEHICLE OPERATORS

These Q&A reflect all previous ones issued by the Transport Agency in December 2018, March 2019 and following the industry advisory group meeting in April 2019.

What are Performance Based Standards (PBS)?

Heavy vehicles are designed and built according to standards that ensure they can be safely operated on our roads. Safety is here primarily determined by how a vehicle fits on the road and its ability to safely take avoidance manoeuvres at speed without losing control.

The safety performance requirements for a 'standard' heavy vehicle are contained in the Vehicle Dimensions and Mass Rule 2016 (VDAM).

However, some heavy vehicle designs and combinations don't meet the Rule's standard vehicle criteria. Where this is the case, PBS are used to indicate whether a non-standard vehicle meets the safety performance requirements equivalent to a standard vehicle.

A PBS is intended to establish a consistent, transparent process for:

- evaluating and approving new non-standard vehicle designs (otherwise known as proforma designs), and
- considering approval of individual vehicles that are neither standard nor fit an approved configuration.

Why do we have PBS?

PBS provide assurance to the NZ Transport Agency (as New Zealand's regulator) that any new, non-standard heavy vehicles will fit safely on our roads, and can be used on either general access or constrained routes.

Operators can use vehicles which do not meet the VDAM Rule as long as the operator has obtained permits which mean the vehicle is safe to use on our roads. As part of that process, operators must show a vehicle is as safe as a standard vehicle – PBS define and make safer a standard vehicle.

What were some of the issues with the previous PBS?

New Zealand's PBS were largely based on standards developed overseas for the local conditions – particularly in Australia. This meant many of the standards were unsuitable to New Zealand's roads as the conditions are different. For example, Australia has many long, straight stretches of maintained highway whereas New Zealand's roads are often narrow and winding.

Concerns raised by industry about previous PBS included:

- the need for clarification around when and how assessments can be undertaken for proforma vehicles,
- a lack of consistency around the assessment process, and
- lack of provision to allow bulk permitting for standardised fleets.

Concerns from a regulator perspective included:

- increased deviation from constraints in the Vehicle Dimension and Mass (VDAM) Rule,
- the need for clarification around what is a 'standard vehicle' to help compare new design proposals, and
- a lack of incentive to create improved new vehicle designs – due to the current process encouraging a proliferation of designs.

How were the new PBS developed?

In 2016 a small project team at the Transport Agency were tasked with improving the PBS. The team worked with an industry advisory group to help develop the standards to an agreed level of safety and practicality as well as the way in which the standards are administered.

The advisory group included representatives from:

- Road Transport Forum
- Trailer Manufacturers Federation
- Log Transport Safety Council
- NZ Police
- Auckland Transport
- TERNZ Transport Research

The new PBS were internationally peer-reviewed and extensive computer modelling was undertaken, which was then validated by practical on-road trials.

What's being released?

The new PBS are now available, along with the first designs that meet the new PBS – these were developed based on greatest identified need and are for log trucks and 'B' trains.

What will be released in future?

Other proformas will be developed based on need, as agreed with industry. The truck and trailer proformas will most likely be next, including stock trucks.

Requests for new proformas need to demonstrate that the design is likely to have widespread uptake – so discussion with other operators or industry groups is recommended prior to approaching the Transport Agency.

We'll also be releasing a framework for assessing unique designs. These will be applicable to specific freight tasks and most likely route bound, for example between a factory and a port. The framework is expected to be available when the Permitting manual is updated later in the year.

How will the transition to new proformas work?

As part of the transition phase of current proformas to new proformas, both new and existing proformas will be valid for a period of 12 months from the date of a new proforma approved against an existing one. (Note that 12 month period is defined by when a vehicle enters service, not when the vehicle is placed on order)

If you have a High Productivity Motor Vehicle length permit for a vehicle, it remains renewable for the life of that vehicle.

Why was 12 months chosen for the transition period?

We need to see an improvement in the fleet, which the new PBS will help to enable, while balancing that with what's workable for the industry in terms of timing.

What are the expected benefits of the new PBS?

The new PBS encourage better design and safer performance on the network – in particular they will exhibit improved tracking within a lane on tight curves and allow some productivity improvements for all such as being able to simultaneously cart a 20- and 40- foot ISO container.

The new PBS will enhance safety while maintaining, or even improving, productivity (note that productivity gains will vary from proforma to proforma – and for the minority of operators who don't see benefits from productivity gains there are alternatives available).

They will provide certainty to the industry on what truck configurations they can put on the road, particularly applicable to the new fleet desired for High Productivity Motor Vehicles. New vehicles will be better than the ones they replace – better for operators and for other road users.

Do the new PBS affect axle groups for 50MAX vehicles?

The PBS review results in no change to axle groups for 50MAX in terms of first to last spacing still being 20 metres.

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