

Performance Based Standards

Design Approval modification process

This information sheet provides guidance about the administrative arrangements for making modifications to existing PBS Design Approvals (DAs).

Background

Performance Based Standards (PBS) vehicles are required to be built in accordance with a design approved by the National Heavy Vehicle Regulator (NHVR). Before issuing an approval, the *Heavy Vehicle National Law* (HVNL) requires the NHVR to consider the advice of the PBS Review Panel (the Panel).

The HVNL allows for the holder of an existing DA to apply for the approval to be modified, but before approving any changes to the design, the NHVR must seek advice from the Panel.

While seeking advice from the Panel makes sense for significant changes, in many cases the changes sought are minor and do not result in a notable change in performance from the originally approved design.

To streamline the DA modification process, the NHVR has developed a two-tier approach.

Types of Design Approval modification

Modifications to a PBS DA are classified into two categories:

1. **Amendment (Major Modifications)**
2. **Variation (Minor Modifications)**

Changes to overall vehicle configuration, such as the number of vehicle units in a combination, changes of axle configurations and/or the number of axle groups are not permitted. These types of changes will require a new DA application.

Amendment

An Amendment is a major modification of an existing DA, which will notably change the vehicle's safety performance and its interaction with the road network and other road users. These types of modifications are considered major and will require the Panel's review and advice before a modified DA can be issued by the NHVR.

Modifications classified as an Amendment:

- Increase in overall length that exceeds the maximum length prescribed by the PBS Network Classification Guidelines for the specified PBS level.

For example, a 19m combination was originally approved for Level 1; an Amendment is required if the overall combination length has increased to 21m as the length exceeds the maximum prescribed Level 1 limit of 20m.

- Increase in overall vehicle width above the prescriptive limit of 2.50m.
- Increase in overall vehicle height above the maximum prescriptive limit of 4.6m. Changes that require exemptions from PBS safety and/ or infrastructure standards in accordance with Section 8 and 9 of the *Heavy Vehicle (General) National Regulation*.
- Additional required exemptions outside of those stated in Section 28 of the *Heavy Vehicle (General) National Regulation*.

For example, due to the presence of a non-compliant axle group, or non-compliance with the retractable axle transition mass as prescribed in ADR 43 Vehicle Configuration and Dimensions.

- Modifications to existing approvals issued with exemptions in accordance with Section 8 and/or 9 of the *Heavy Vehicle (General) National Regulation* where the non-compliance has deteriorated.

For example, an approval has been issued under Section 8 as the vehicle failed to comply with the Frontal Swing standard. Modifications to the vehicle design have negatively affected the level of non-compliance with the Frontal Swing requirements. Such an application would require submission to the Panel.

- Addition of significantly novel features and/or components other than those that are commonly used in heavy vehicle design.

Variation

Modifications to existing designs that are low-risk and inconsequential are considered a Variation. These modifications do not affect the vehicle's level of compliance with the PBS Standards and will be processed by the NHVR with pre-approval from the Panel.

Modifications classified as a Variation:

- Dimensional changes, provided the maximum combination length do not exceed the prescribed limits in the PBS Network Classification Guidelines for the specified level.

Despite the above, an increase in overall length above the maximum length prescribed by the PBS Network Classification Guidelines is permitted, provided the original vehicle (or any vehicle variant listed on the DA) has been previously approved at

lengths exceeding the maximum prescribed length bracket.

- Changes in component selections, including but not limited to, the addition of steerable axles, engines, transmissions, suspensions and tyres.
- Changes to maximum payload and Centre of Gravity heights as a result of different component selections and/or dimensional adjustments.
- Inclusion of additional masses, including increase in gross combination mass and/or axle group masses – subject to compliance with the PBS Horizontal and Vertical Pavement Loading Standards.
- Inclusion of additional dimensional exemptions, other than for width.
- Inclusion of additional prime movers and vehicle variants. New vehicle variants may be at a different level provided the vehicle complies with all the PBS Standards.

For example, inclusion of Level 1 or Level 3 vehicle variant to an existing Level 2 design, provided the new vehicle variant passes all PBS Standards at Level 1 and Level 3 respectively.

- Change in load type, such as to gain approval to carry Dangerous Goods.

Note: Pre-Advised designs are not permitted to be modified in such a way that the combination(s) would not continue to qualify for the Pre-Advised design approval process.

Benefits of the two-tiered modification process

The benefits of allowing minor design modifications to be processed within the NHVR's administrative process include:

- Reduction of waiting periods by up to six weeks for obtaining approval for minor changes. This gives manufacturers much needed flexibility to make prompt design changes without undue delays.
- Reduction of administrative burden imposed by the Amendment process. This means less red tape for the industry, quicker turnaround times and ultimately better safety and productivity outcomes.
- Reduction of administrative burden on the NHVR and the Panel members, whilst maintaining vehicle safety and compliance with the standards.

Submitting DA modifications to NHVR

All DA modifications (Amendments and Variations) require an assessment by an approved PBS Assessor. An updated set of application documents must be submitted to the NHVR including updated technical results that demonstrate the vehicle continues to comply with the PBS standards.

This is to ensure that the approval will not result in a reduction in safety or present additional safety risk when compared with the original design.

When submitting DA modification requests, Assessors must state the DA modification category (Amendment or Variation) in the appropriate section of the Part A of the DA application form.

For more information:

Visit: www.nhvr.gov.au/pbs

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