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WA Performance Based Standards (PBS) Scheme

Vehicle Certification Rules

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Contents

REFERENCES AND RELATED DOCUMENTS	4
1 PURPOSE	5
2 SCOPE	5
3 CONDUCTING CERTIFICATIONS	5
3.1 Who May Conduct Certifications	5
3.2 When Certifications Will Be Conducted	5
3.3 Where Will Certifications Be Conducted	5
4 CERTIFICATION INSPECTIONS & DECLARATIONS	5
4.1 Physical Inspection	5
4.2 Third Party Evidence	6
4.3 Manufacturer’s Declaration	6
5 CERTIFICATION PROCESS & EVIDENCE	6
5.1 Certification Certificate.....	6
5.2 Towing Vehicle Engine, Driveline and Suspension	6
5.3 Trailer Suspension.....	7
5.4 Tyres.....	7
5.5 Tow Couplings	7
5.6 Braking and Stability System	7
5.7 Mass	8
5.8 Measurements	8
5.9 Video Evidence.....	8
5.10 Other Evidence	8
6 COMPLIANT CERTIFICATION INSPECTION	8
7 NON-COMPLIANT CERTIFICATION INSPECTION	8
7.1 Incomplete Certification	8
7.2 Rectifying Anomalies	9
7.3 Re-inspection of the Vehicle Combination	9

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Amendments

Revision Number	Revision Date	Description of Key Changes	Section / Page No.
1	15/06/2022	Clarified Braking and Stability System requirements. Removed appendices. Referred to relevant declaration template titles within the relevant sections. Clarified manufacturer accepted declarations.	cl.4.3 cl.5.1 cl.5.6
2	12/09/2022	Added reference to <i>WA Performance Based Standards (PBS) - Road Train TEBS Voltage Test Procedure</i> .	cl.5.6

REFERENCES AND RELATED DOCUMENTS

The following documents are related to the WA PBS Scheme and the vehicle certification process. These documents are available on the Performance Based Standards (PBS) page on the Main Roads website.

Document Number	Description
D16#365314	WA PBS Scheme – Application and Approval Process
D16#365331	WA PBS Scheme – Standards and Vehicle Assessment Rules
D16#438044	WA PBS Scheme – Access Levels and Principles
D17#492695	WA PBS Scheme – Audit Framework
D20#870678	WA PBS Scheme – Vehicle Certification Application
D20#857246	WA PBS Scheme – Assessment Results (Part A)
D20#857253	WA PBS Scheme – Vehicle Specifications (Part B)
D20#836031	WA Performance Based Standards (PBS) Scheme - Manufacturer's Declaration - Towing Vehicle
D20#840137	WA Performance Based Standards (PBS) Scheme - Manufacturer's Declaration – Trailer
D20#840795	WA Performance Based Standards (PBS) Scheme - Manufacturer's Declaration - Duplicate Vehicles
D20#843374	WA Performance Based Standards (PBS) Scheme - Trailer Manufacturer's Checklist
D22#993574	WA Performance Based Standards (PBS) Scheme - Road Train TEBS Voltage Test Procedure

1 PURPOSE

The purpose of these rules is to outline the process for certifying a vehicle combination built in accordance with a design approval issued under the WA Performance Based Standards (PBS) Scheme.

2 SCOPE

These rules apply to the WA PBS Scheme only. The NHVR PBS Vehicle Certification Rules must be followed when certifying vehicles under the National PBS Scheme.

3 CONDUCTING CERTIFICATIONS

3.1 Who May Conduct Certifications

3.1.1 Main Roads Heavy Vehicle Services (HVS) will conduct vehicle certifications for vehicles that have been built in accordance with a WA PBS Vehicle Design Approval.

3.1.2 All vehicle certifications will be undertaken by a minimum of two (2) HVS personnel with appropriate expertise.

3.2 When Certifications Will Be Conducted

Once a WA PBS Vehicle Design Approval has been issued and the vehicle has been built and is ready to be put into service, the applicant will need to submit a *Vehicle Certification Application Form*, to HVS to arrange for a vehicle certification to be conducted.

Note: *The Vehicle Certification Application Form is available on the Performance Based Standards (PBS) page on the Main Roads WA website.*

3.3 Where Will Certifications Be Conducted

3.3.1 Vehicle certifications will be conducted at a suitable location within the Perth Metropolitan Area, wherever practicable.

3.3.2 Where it is not practicable to conduct a vehicle certification within the Perth Metropolitan Area, the vehicle certification may be conducted at an agreed suitable location outside the Perth Metropolitan Area, within Western Australia.

3.3.3 Where a vehicle certification is conducted outside the Perth Metropolitan Area, the applicant may be liable for the HVS personnel's travel and accommodation costs. HVS will provide a cost estimate prior to the vehicle certification, which must be agreed to by the applicant prior to the vehicle certification being conducted. The applicant will be invoiced for the actual costs once the vehicle certification has been completed.

3.3.4 A suitable location is one that is safe, clean, well lit and has suitable facilities for the inspection of heavy vehicles.

4 CERTIFICATION INSPECTIONS & DECLARATIONS

4.1 Physical Inspection

4.1.1 HVS will conduct a physical inspection of the first vehicle combination built for each approved WA PBS Vehicle Design.

4.1.2 HVS will conduct random physical inspections to ensure the vehicle combinations are continuing to meet the specifications.

4.2 Third Party Evidence

HVS may engage an independent third party to conduct an inspection and provide evidence of specified vehicle characteristics.

4.3 Manufacturer's Declaration

4.3.1 HVS will require a declaration from a motor vehicle or trailer manufacturer to:

- (a) Confirm vehicle characteristics that cannot be confirmed by a visual inspection, such as engine output, gear ratios etc.
- (b) Confirm every vehicle in a specified production run has the same physical characteristics as a vehicle that has been physically inspected by HVS.

4.3.2 All manufacturer declarations must be submitted prior to HVS conducting a physical inspection of the vehicle and must be submitted using the relevant template listed below, available on the Performance Based Standards (PBS) page on the Main Roads website:

- (a) WA Performance Based Standards (PBS) Scheme - Manufacturer's Declaration - Towing Vehicle
- (b) WA Performance Based Standards (PBS) Scheme - Manufacturer's Declaration - Trailer
- (c) WA Performance Based Standards (PBS) Scheme - Manufacturer's Declaration - Duplicate Vehicles.

5 CERTIFICATION PROCESS & EVIDENCE

5.1 Certification Certificate

5.1.1 HVS will conduct a vehicle certification in accordance with the WA PBS Vehicle Specifications (Part B) form, provided by the PBS Assessor.

5.1.2 The evidence outlined in this section will be required for HVS to complete the WA PBS Vehicle Specifications (Part B) form and certify the vehicle combination. The WA Performance Based Standards (PBS) Scheme - Trailer Manufacturer's Checklist is available on the Performance Based Standards (PBS) page on the Main Roads website to assist trailer manufacturers in ensuring they have provided the required evidence.

5.2 Towing Vehicle Engine, Driveline and Suspension

5.2.1 HVS will accept manufacturer's specifications for a particular towing vehicle make and model as confirmation of any of the following characteristics:

- (a) Engine power and torque;
- (b) Clutch engagement torque;
- (c) Gearbox ratios;
- (d) Differential final drive ratios;
- (e) Differential torque distribution;
- (f) Suspension.

5.2.2 The manufacturer's specifications must be provided to HVS either in the form of a Manufacturer's Declaration or standard specifications sheet / brochure. It is recommended that the applicant provide this information with their vehicle certification application to avoid delays.

5.2.3 Where the particular towing vehicle make and model has options for the engine, driveline or suspension, HVS will require evidence to show which option has been fitted to the towing vehicle requiring certification. Evidence may be in the form of any of the following:

- (a) A Manufacturer's Declaration;
- (b) An invoice clearly showing the options and chassis number;
- (c) A physical inspection if the particular components can easily be identified by a model / part number, either stamped directly on the component or a compliance plate.

5.3 Trailer Suspension

The trailer suspension details must be provided to HVS in the form of a Manufacturer's Declaration. It is recommended that the applicant provide this information with their application to avoid delays.

5.4 Tyres

5.4.1 During the initial vehicle certification, HVS will physically inspect and record the tyre make, model and size.

5.4.2 For subsequent vehicle certifications, HVS will accept a Manufacturer's Declaration or video evidence where the tyres have been fitted aftermarket.

5.5 Tow Couplings

5.5.1 During the initial vehicle certification, HVS will physically inspect the tow couplings and record the coupling type, position and ratings.

5.5.2 If other evidence is required, such as strength testing or angle of lash, HVS will require the manufacturer to provide sufficient evidence in the form of a declaration and / or an Australian Design Rule (ADR) compliance report.

5.5.3 If the ratings are not clearly visible during the inspection, HVS will require the manufacturer to clean the ratings plates, or fit new ratings plates.

5.5.4 For subsequent vehicle certifications, HVS will accept a Manufacturer's Declaration or video evidence where the prime mover's fifth wheel coupling has been fitted aftermarket.

5.6 Braking and Stability System

5.6.1 HVS will physically inspect and record details of the braking system.

5.6.2 The prime mover manufacturer will be required to provide a written declaration confirming the following:

- (a) The prime mover is supplying adequate power to the Trailer Electronic Braking System (TEBS) to maintain a minimum of 10 volts at the rearmost trailer, with the electrical system under maximum load. Generally, a prime mover towing more than one trailer will require 24 volts power, with 25 amps to meet this requirement.
- (b) The prime mover is fitted with an Antilock Braking System (ABS) or Electronic Braking System (EBS) system.

5.6.3 The trailer manufacturer will be required to provide a written declaration confirming the following:

- (a) There is a minimum of 10 volts at the TEBS on the rearmost trailer, when tested in accordance with the *WA Performance Based Standards (PBS) Scheme - Road Train TEBS Voltage Test Procedure*, available on the Performance Based Standards (PBS) page on the Main Roads WA website.
- (b) The Rollover Stability System is fully functional.

5.6.4 The trailer manufacturer will be required to supply the “End of Line” test results for each unit fitted with EBS.

5.7 Mass

HVS will obtain the tare weight of each vehicle forming part of the combination using one of the following methods:

- (a) Physically weigh the vehicle(s) using portable scales;
- (b) Physically weigh the vehicle(s) on a certified weighbridge;
- (c) Accept a weight declaration or weighbridge docket(s) from the manufacturer.

5.8 Measurements

5.8.1 HVS will physically measure each part of the vehicle combination in accordance with the vehicle schematic provided by the PBS Assessor.

5.8.2 HVS will apply a tolerance of 20mm or 1%, whichever is the lesser. If the dimensions vary by more than this tolerance, the PBS Assessment must be resubmitted with the updated dimensions.

5.8.3 Despite sub-clause 5.8.2, a tolerance will not be applied to maximum and minimum dimensions set by HVS, e.g. maximum combination length limits and minimum axle spacing requirements.

5.9 Video Evidence

Under certain circumstances, HVS may accept video evidence of vehicle specifications, provided:

- (a) The video is continuous; and
- (b) The video clearly shows the vehicle identification number (VIN); and
- (c) The video clearly demonstrates the evidence required.

5.10 Other Evidence

The motor vehicle or trailer manufacturers may be required to provide additional information at the request of HVS, such as but not limited to, specific test results, unladen centre of gravity height and steerable trailer axle specifications.

6 COMPLIANT CERTIFICATION INSPECTION

If the vehicle combination meets all of the requirements specified by HVS, the PBS Assessor and the National Heavy Vehicle Regulator (where applicable), the vehicle combination will be certified by HVS and a WA PBS Permit will be issued accordingly.

7 NON-COMPLIANT CERTIFICATION INSPECTION

7.1 Incomplete Certification

If the vehicle combination does not meet all of the requirements specified by HVS, the PBS Assessor and the National Heavy Vehicle Regulator (where applicable), the vehicle certification will be deemed incomplete until the anomalies are rectified.

7.2 Rectifying Anomalies

- 7.2.1** If a minor anomaly can be rectified immediately and if time permits, HVS personnel will wait and confirm the issue has been rectified.
- 7.2.2** If the anomaly is unlikely to affect the PBS assessment results and cannot be rectified immediately, the vehicle combination will need to be re-inspected once the anomaly is rectified, unless HVS agrees for other evidence to be provided.
- 7.2.3** If the anomaly is likely to affect the PBS assessment results and / or exceeds the allowable variation parameter, the vehicle combination will need to be re-assessed by the PBS Assessor. HVS will advise the applicant accordingly, who will then need to re-engage their chosen PBS Assessor.

7.3 Re-inspection of the Vehicle Combination

If the vehicle combination requires further inspection, the applicant will need to contact HVS to arrange an inspection in accordance with [Section 3](#).