



National Heavy Vehicle Regulator

# NHVR Code of Practice for the Approval of Heavy Vehicle Modifications

February 2014

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Version 1.0



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## 1. Introduction

The Heavy Vehicle National Law (HVNL) provides for the approval of modifications to heavy vehicles under section 86 (by Approved Vehicle Examiners) and Section 87 (by the National Heavy Vehicle Regulator (NHVR)). Under section 86 the modifications that can be approved are those that comply with a code of practice prescribed by the national regulations.

This document is the prescribed *NHVR Code of Practice for the Approval of Heavy Vehicle Modifications* (the Code) under section 12 of the *Heavy Vehicle (Vehicle Standards) National Regulation* (National Regulation). The Code applies the *National Code of Practice Vehicle Standards Bulletin (VSB) 6 – Heavy Vehicle Modifications* published by the Commonwealth Department of Infrastructure and Regional Development (DIRD) as modification standards under this Code<sup>1</sup>.

Vehicles modified in accordance with this Code must meet the technical requirements of Part B – Technical Aspects of the VSB 6. The administrative requirements in Part A may have requirements in conflict with this Code. Where this is the case, this Code takes precedence. *Vehicle Standards Bulletin 6* supplements recommendations of the original heavy vehicle manufacturer's modification techniques or standards. It also provides further guidance where heavy vehicle manufacturer's recommendations do not exist.

The modification of heavy vehicles is a complex task. This Code seeks to provide clear and simple guidance to vehicle owners, registered operators or modifiers (persons who modify vehicles usually engineers or vehicle trades persons) on maintaining compliance with heavy vehicle standards when modifying a heavy vehicle. This Code covers heavy vehicle modifications requiring approval.

Generally the modifications included in the Code can be approved by an Approved Vehicle Examiner (AVE). Modifications not included in the Code require an application to modify a heavy vehicle and approval by the NHVR. The NHVR may make reference to the Code requirements for these modifications. The Code provides guidance on the vehicle standards and other applicable standards as well as the types of modifications that can be approved by an AVE and how the NHVR will regulate approval methods.

A modified heavy vehicle must continue to be compliant with the HVNL and National Regulation which includes the Australian Design Rules (ADRs) unless granted an exemption. Modifications to heavy vehicles included in the Code can be approved if they comply with the requirements specified in this Code.

It is important to note that the requirements of the National Regulation including the ADRs, and the original heavy vehicle manufacturer's recommendations take precedence over this Code. Modifications approved under this Code by an AVE must comply with the National

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<sup>1</sup> Section 24 of Schedule 1 of the HVNL provides for a statutory instrument or other document made under the Law to be applied as in force from time to time. Approvals of modifications are made under the version of VSB 6 in force at the time of the approval.

Regulation, all applicable ADRs, and where available, original vehicle manufacturer's recommendations.

Any reference to the code of practice refers only to the current version of this Code, as published by the NHVR. Unless otherwise stated, words and expressions used in this Code have the same meanings as in the HVNL or National Regulations made under the HVNL. Section 11 (Definitions) also defines expressions used in this Code.

## 2. Application

This Code applies to modifications to heavy vehicles in participating jurisdictions. A heavy vehicle is as defined in section 6 of the HVNL as:

### Meaning of heavy vehicle

- (1) For the purposes of this Law, a vehicle is a **heavy vehicle** if it has a GVM or ATM of more than 4.5t.
- (2) Also, for the purposes of this Law other than in relation to registration under this Law, a combination that includes a vehicle with a GVM or ATM of more than 4.5t is a **heavy vehicle**.
- (3) However, rolling stock is not a **heavy vehicle** for the purposes of this Law.
- (4) In this section—

#### **rolling stock—**

1. Rolling stock is a vehicle designed to operate or move on a railway track and includes a locomotive, carriage, rail car, rail motor, light rail vehicle, tram, light inspection vehicle, self-propelled infrastructure maintenance vehicle, trolley, wagon or monorail vehicle.
2. A vehicle designed to operate both on and off a railway track is rolling stock when the vehicle is being—
  - (a) operated or moved on a railway track; or
  - (b) maintained, repaired or modified in relation to the operation or movement of the vehicle on a railway track.

Rolling stock has been included in the definition to provide clarity in regards to heavy vehicles that are capable of operating on a railway track. These vehicles are only to be considered as rolling stock if they meet the above definition. If the heavy vehicle is to also operate on a road or road related area they are treated as heavy vehicles under the HVNL and must comply or have an exemption if not compliant with the heavy vehicle standards.

The HVNL defines a modification as “modification of a vehicle includes the addition of components to, or the removal of components from, the vehicle.”

This Code has been established to provide a method for the NHVR to ensure the most commonly performed modifications to heavy vehicles are done in a way that results in:

- continuing compliance to the National Regulation
- continuing compliance with the ADR's applicable at the vehicle's date of manufacture
- compliance with requirements of Registering Authorities
- acceptable levels of heavy vehicle operational safety.

For the purposes of this Code, modifications require approval where the modification:

- impacts on the vehicle's:
  - safety
  - design
  - environmental performance
  - handling characteristics
  - structural integrity; or
  - compliance with the National Regulation and ADRs.
- changes its configuration including but not limited to:
  - chassis
  - load carrying capability (GVM, GCM, GTM)
  - body type
  - axle configuration
  - wheelbase
  - seating capacity
  - engine
  - transmission
  - brakes
  - suspension.

An application to modify a heavy vehicle is for individual vehicles and not for combinations of vehicles.

### 3. Prescribed Standards for modifications

The prescribed standards are applicable to modifications that can be approved by AVE's on behalf of the NHVR under section 86 of the HVNL. There are a variety of prescribed standards relating to the design and construction, modification and continued safe operation of heavy vehicles. *Vehicle Standards Bulletin 6* published by the DIRD, sets out the requirements for modifying a heavy vehicle and is the prescribed standard, in conjunction with this Code, for carrying out both new and in-service heavy vehicle modifications. *Vehicle Standards Bulletin 6* references other Vehicle Standards Bulletins published by the DIRD to apply appropriate standards to modifications and these must also be applied when modifying heavy vehicles.

The Vehicle Standards Bulletins referenced are:

- VSB 2 - Maximum Road Speed Limiting for Heavy Trucks and Buses
- VSB 5A - Commercial Manufacture and Installation of Additional Seats
- VSB 5B - Construction and Installation of Additional Seats by Individuals

*Vehicle Standards Bulletin 6* also identifies the ADRs that may be affected by the modification, to which the vehicle must continue to comply. *Vehicle Standards Bulletin 6* also references a number of automotive and Australian Standards that are applicable to the modification being performed. Examples of these standards are Section G Brakes – SAE J844, Air Brake Piping and Section H Chassis Frame – AS 1554 Structural Steel Welding Category SP.

In addition to VSB 6, there are also a number of specific modification codes that are applicable to individual jurisdictions that must also be considered when undertaking the specified

modifications in those jurisdictions. The modifications in these codes are not covered by VSB 6. They include:

### Commonwealth

Further information and guidance on the application of and compliance with vehicle standards is available in Vehicle Standards Bulletins issued by the Commonwealth Department of Infrastructure and Regional Development.

The Vehicle Standards Bulletins are available at:

[http://www.infrastructure.gov.au/roads/vehicle\\_regulation/bulletin/](http://www.infrastructure.gov.au/roads/vehicle_regulation/bulletin/)

### Queensland

- Child Restraint Anchorage Installation (K6)
- Gross Vehicle Mass Rating – Rigid Omnibus (S4)
- Gross Vehicle Mass Rating – Articulated Omnibus (S5)
- Omnibus Licensing Evaluation (S6)
- Concessional Livestock Loading – Vehicle Rating (S10)

Further details are available at:

<http://www.tmr.qld.gov.au/Safety/Vehicle-standards-and-modifications/Vehicle-modifications/Heavy-vehicle-modifications.aspx>

### South Australia

These are additional *activity codes* that deal with heavy vehicles that do not have an identification plate affixed. These are not modification codes as such as they are not assigned a modification process and should only be included when fitting a modification plate as an indicator that this activity has taken place and on instruction from the Department for Planning, Transport and Infrastructure.

- No AMVCB or Motor Vehicles Standards Act Compliance Plate (Z1)
- No AMVCB or Motor Vehicles Standards Act ADR Compliance Plate Approval (Z2).

Further details are available at:

<http://www.sa.gov.au/upload/franchise/Transport,%20travel%20and%20motoring/Motoring/Vehicle%20Standards%20and%20Modifications/MR1490%20Manual%20for%20the%20Recognised%20Engineering%20Signatory%20Scheme%20%2026jul13.pdf>

### Tasmania

- Vehicle Information Bulletin – Motorhome Conversions

Further details are available at:

[http://www.transport.tas.gov.au/\\_data/assets/pdf\\_file/0019/74602/Motorhome\\_Conversion\\_Jan\\_2012.pdf](http://www.transport.tas.gov.au/_data/assets/pdf_file/0019/74602/Motorhome_Conversion_Jan_2012.pdf)

### Victoria

- Vehicle Standards Information # 5 – Conversion of Vehicles to Motor Homes

Further details are available at:

## 4. Classifying heavy vehicle modifications

The NHVR has classified the type of heavy vehicle modifications that require approval, either by an AVE or the NHVR. For minor modifications the NHVR cannot provide an exhaustive list, but general guidance is provided below on the limited type of modifications classified as minor.

### 4.1 Minor modifications that do not require approval

Minor modification includes the fitting of optional equipment or alterations to a vehicle within manufacturer's specifications that do not cause the vehicle to be non-compliant with heavy vehicle standards. Should clarification be required on whether a modification requires approval the NHVR will make a determination.

Examples include; additional lighting, aerials, air conditioning, alarm systems, plastic shields for lamps and windscreens, and manufacturer's wheel/ tyre options (that do not affect the Gross Vehicle Mass (GVM) or Gross Combination Mass rating of the vehicle). These modifications do not require approval provided the vehicle continues to be within manufacturer's specifications and comply with the heavy vehicle standards in the National Regulation (the heavy vehicle standards).

### 4.2 Section 86 modifications

These modifications are those outlined in this Code. This includes complex modifications that can affect the safety of a vehicle if not performed properly. The modifications included in the Code are based on accepted vehicle engineering practices and the requirements of the heavy vehicle standards. The Code also supplements the recommendations of the original vehicle manufacturer in relation to vehicle modification techniques or standards and provides guidelines where manufacturer's specifications do not exist.

Vehicles modified in accordance with the Code maintain the vehicle's compliance with heavy vehicle standards. These modifications require approval by an AVE who will issue a modification certificate and ensure a modification plate is affixed to the vehicle if it passes inspection

The vehicle may require a further inspection subject to particular jurisdiction registration laws. Information on how to contact AVEs in participating jurisdictions is available on the NHVR website.

### 4.3 Section 87 modifications

These are modifications not covered by this Code and may cause the vehicle to be non-compliant with a heavy vehicle standard. These modifications require approval by the NHVR. The NHVR will issue a *Statement of Requirements – Requirements for Modification Approval* (Statement of Requirements) detailing how the vehicle modification should be undertaken. These are usually significant or extensive modifications that have the potential to seriously affect the safety of the vehicle and its operation on the road by changing the vehicle's design, strength, structural integrity and handling characteristics.

Approval by the NHVR requires an application to, and assessment by the NHVR. An engineering analysis (certification) by a suitably qualified person may also be required depending on the extent of the modification and the potential effect of the alterations on the vehicle's safe operation. Where a modification application is approved, the NHVR will issue a Statement of Requirements as outlined in section 7.2 of this Code.

## 5. Overview of Approved Vehicle Examiners role

Approved Vehicle Examiners are the class of persons under the HVNL who may approve heavy vehicle modifications within the Code through schemes established and managed by participating jurisdictions. AVEs are authorised to perform approved functions for any heavy vehicle that is or will be registered in any participating jurisdiction, not just the jurisdiction where the AVE is approved in an AVE scheme. They must comply with the administrative and business rules of the jurisdiction AVE scheme of their approval.

An AVE approved in a participating jurisdiction will need to confirm with any non-participating jurisdiction whether they are authorised to approve modifications to vehicles registered or to be registered in a non-participating jurisdiction.

Section 30(1) of the *Heavy Vehicle (General) National Regulation* states that:

“A person is an approved vehicle examiner in relation to a particular function (the **approved function**) conferred on approved vehicle examiners under the Law if the person is authorised to perform the same or equivalent function (the **jurisdictional function**) under an AVE jurisdictional scheme (the **relevant scheme**).”

This means that an AVE approved in a scheme within a participating jurisdiction is an AVE of the NHVR for the purposes of the HVNL. The AVE must comply with the administrative and business rules of the scheme in which they are approved. If they are approved for more than one scheme they must comply with the scheme in which they are performing the function - e.g. if undertaking an approval or certification in Victoria the administrative and business rules of the Vehicle Assessment Signatory Scheme would be applicable.

1. The HVNL provides for an AVE to approve a modification of a heavy vehicle only if the modification complies with this Code and the AVE has been approved for the same or similar function.
2. The HVNL provides for the national regulations to establish classes of vehicle examiners and the functions of various classes of AVE. As the NHVR will be utilising existing participating jurisdictional AVE schemes, the applicable jurisdiction scheme will determine the various classes of AVEs and an AVE must comply with the business rules applicable to their designated class within that jurisdiction AVE scheme.

## 6. Approval of section 86 modifications by Approved Vehicle Examiners

All modifications certified under section 86 of the HVNL by an AVE must be carried out in accordance with the prescribed standards (section 3), this Code and the administrative and



business rules of the AVE scheme to which they are approved. If they are approved for more than one scheme they must comply with the scheme in which they are performing the function.

A modification can be approved by an AVE in the following circumstances:

- the vehicle complied with the applicable heavy vehicle standards<sup>2</sup> and will continue to comply with the applicable heavy vehicle standards after modification, or
- the vehicle is already non-compliant and is operating under a heavy vehicle standards exemption issued by the NHVR or the equivalent issued by a jurisdiction prior to commencement of the NHVL and the modification does not impact on that heavy vehicle standards exemption or result in further non-compliance, or
- the vehicle is non-compliant and is operating under a heavy vehicle standards exemption issued by the NHVR or the equivalent issued by a jurisdiction prior to commencement of the NHVR and the modification restores the vehicle to full compliance with the applicable heavy vehicle standards.

When a modification is approved, the AVE must provide the operator or registered owner a Modification Certificate and ensure an approved Modification Plate/ Label is affixed to the vehicle.

### 6.1 Complying vehicles

If a vehicle has been operating under either a vehicles standards exemption (permit or notice) and has been brought back into compliance with the vehicle standards there are a number of things that the owner or registered operator must do:

- If the vehicle was operating under a vehicle standards exemption (permit) issued by the NHVR or the equivalent issued by a jurisdiction prior to commencement of the HVNL and had conditions of use placed on the vehicle, the registered operator or the vehicle owner will need to apply to the NHVR to cancel the vehicle standards exemption (permit) and seek the removal of the conditions associated with the vehicle standards exemption (permit). The registered operator will also need to advise the registration authority in the jurisdiction where the vehicle is registered.

If the vehicle was operating under a vehicle standards exemption (notice) issued by the NHVR or the equivalent issued by a jurisdiction prior to commencement of the HVNL and had conditions of use placed on the vehicle. The registered operator will also need to advise the registration authority in the jurisdiction where the vehicle is registered.

### 6.2 Applicant actions (section 86)

If a registered operator or vehicle owner is seeking an approval of a modification that is within the Code, or seeking clarification on whether the modification requires approval under this Code, the following process occurs:

- Discuss the proposed modifications with the modifier or an AVE.
- Confirm the modification is a modification within the Code and requires approval.

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<sup>2</sup> If a non-compliance not covered by a vehicle standards exemption permit or notice exists the non-compliance must be corrected before the modification can be certified.

- The vehicle is modified.
- The vehicle is presented to the AVE for inspection and approval.

An application to the NHVR to modify the vehicle is not required for modifications under Section 86.

### 6.3 Approved Vehicle Examiner actions (section 86)

- an AVE inspects the modification to the vehicle, if the vehicle has been modified in accordance with this Code and the heavy vehicle standards, the AVE approves the modification
- the AVE provides the owner/ operator with a Modification Certificate and the Modification Plate/ Label is affixed to the vehicle. Where a jurisdiction retains the issue of modification certificates and plates the AVE provides the required documentation to the jurisdiction to have a modification certificate and plate issued
- the AVE complies with the administrative requirement of the scheme under which the AVE is approved.

## 7. Approval of section 87 modifications

Modifications under section 87 of the HVNL approved by the NHVR are those where the modifications would result in a vehicle not being fully compliant with the heavy vehicle standards and/ or that cannot be, or have not been, carried out in accordance with the prescribed standards and this Code.

Where a modification approved by the NHVR results in a vehicle not being fully compliant with the applicable heavy vehicle standards, and that vehicle is **NOT** within a category of heavy vehicles currently exempt from complying with a heavy vehicle standard by a vehicle standards exemption (notice), that vehicle cannot operate on the road unless the NHVR issues a vehicle standards exemption (permit) in respect of that particular vehicle's non-compliance.

It should be noted that where a heavy vehicle is being modified in accordance with a *Statement of Requirements – Requirements for Modification Approval (Statement of Requirements)* issued by the NHVR, the modifications may not comply with this Code (VSB 6) or cause the vehicle to not comply with the heavy vehicle standards.

### 7.1 Regulator considerations

Before deciding to approve an application to modify a heavy vehicle, the NHVR may consider:

- whether an application has been made for a vehicle standards exemption (permit) or whether the operation of the vehicle once modified is covered by an existing vehicle standards exemption (notice)
- the justification for departing from the prescribed standards
- the justification for the vehicle after modification to be non-compliant with the applicable heavy vehicle standards
- the suitability of other standards that may be applied in modifying the vehicle
- calculations and testing that may be needed to support such an approval
- the locations in which the vehicle will be operating and whether the road manager will allow such a vehicle to operate on its roads

- potential conditions that may be imposed on the vehicle's operation by a registering authority
- whether the vehicle when modified will pose a significant safety risk the operating conditions which may apply to minimise any safety implications
- if the vehicle with the modification will be required to operate under a vehicle standards exemption (permit or notice)

## 7.2 Statement of requirements

If the NHVR decides to approve an application to modify a heavy vehicle, the NHVR will give the applicant a *Statement of Requirements – Requirements for Modification Approval* (Statement of Requirements).

The Statement of Requirements will provide the applicant and modifier of a heavy vehicle with specific details regarding how the modification must be undertaken. It can include requirements for reporting on and the testing of particular components or vehicle systems subject to or affected by the proposed modification. This may extend to the certification of particular components or vehicle systems by a suitably qualified engineer or professional.

The Statement of Requirements will:

- specify the proposed details of how the modification is to be undertaken
- prescribe any additional calculations and/ or testing which must be undertaken
- specify any alternative standards that should be applied (if applicable)
- stipulate the testing and certification of particular components or vehicle systems by a suitably qualified engineer or professional
- specify in detail the evidence and documentation required to enable an AVE to certify the modification on behalf of the NHVR
- specify, if applicable, who is to supply this evidence and documentation
- specify any other requirements in relation to the modification e.g. not operate until notified by the NHVR
- possibly ask for an independent certification of the modification against the Statement of Requirements
- specify what the AVE must record on the Modification Certificate and Modification Plate
- if the vehicle is required to operate under a vehicle standards exemption permit or notice
- specify the inspection requirements required by a particular jurisdiction.

If a modifier has concerns regarding the Statement of Requirements they should discuss these with the NHVR **BEFORE** undertaking the modification.

For section 87 modification applications the NHVR will use VSB 6 codes as the descriptor for the area of the modification with the prefix 'H' to indicate a heavy vehicle modification approved by the NHVR, e.g. a modification to a body or a braking system would have the codes HJ or HG.

## 7.3 Applicant actions

An application has to be made to the NHVR for approval of a modification under section 87.

After the NHVR assesses the application and issues the Statement of Requirements to the applicant prescribing the modification being undertaken, the following process occurs:

- the applicant provides the Statement of Requirements to the modifier
- the vehicle is modified to the Statement of Requirements (any testing and certification of particular components or vehicle systems is to be undertaken)
- the vehicle is taken to an AVE to have the vehicle inspected against the Statement of Requirements, this Code and the heavy vehicle standards
- where an inspection is required by a jurisdiction (or as specified in the Statement of Requirements) take the vehicle for the specified inspection.

#### 7.4 Approved Vehicle Examiner actions (section 87)

The AVE is responsible for inspecting and where applicable certifying that the vehicle has been modified in accordance with the Statement of Requirements issued by the NHVR and is compliant in all other respects to this Code and the heavy vehicle standards. The requirements that an AVE must meet include:

- If the vehicle passes the certification inspection:
  - an AVE certifies that the vehicle has been modified in accordance with the Statement of Requirements (including any specified tests or reports), this Code and the heavy vehicle standards
  - the AVE provides the owner/ operator with a Modification Certificate and ensures the Modification Plate/ Label is affixed to the vehicle. Where a jurisdiction retains the issue of modification certificates and plates the AVE provides the required documentation to the jurisdiction to have a modification certificate and plate issued
  - the AVE must complete the Approved Vehicle Examiner Report attached to the Statement of Requirements, attaching any supporting material (if applicable) such as photos or tests undertaken and provide copies to the owner or operator, the jurisdiction where the vehicle is registered and the NHVR
- If the vehicle fails the certification inspection:
  - the AVE must complete the Approved Vehicle Examiner Report attached to the Statement of Requirements, ensuring the reason why the vehicle is unable to be certified and provide copies to the owner or operator, the jurisdiction where the vehicle is registered and the NHVR .
- The AVE must comply with the administrative requirement of the scheme under which the AVE is approved.

#### 7.5 Jurisdiction actions (section 87)

The Statement of Requirements provides detailed instructions in regards to the process of approving a heavy vehicle modification. In some instances a jurisdiction may specify that it inspects and issues the Modification Certificate for section 87 approvals. Where the NHVR specifies in the Statement of Requirements that a jurisdiction will inspect the vehicle there is a two stage approval process. The AVE, in conjunction with the jurisdiction, is responsible for inspecting and where applicable certifying that the vehicle has been modified in accordance with the Statement of Requirements issued by the NHVR and is compliant in all other respects to this Code and the heavy vehicle standards. The requirements that an AVE and a jurisdiction must meet include:

### Approved Vehicle Examiner

- If the vehicle passes the certification inspection:
  - an AVE certifies that the vehicle has been modified in accordance with the Statement of Requirements (including any specified tests or reports), this Code and the heavy vehicle standards
  - the AVE ensures the Modification Plate/ Label is affixed to the vehicle
  - the AVE must complete the Approved Vehicle Examiner Report attached to the Statement of Requirements, attaching any supporting material (if applicable) such as photos or tests undertaken and provide copies to the owner or operator, the jurisdiction where the vehicle is registered and the NHVR
- If the vehicle fails the certification inspection:
  - the AVE must complete the Approved Vehicle Examiner Report attached to the Statement of Requirements, ensuring the reason why the vehicle is unable to be certified and provide copies to the owner or operator, the jurisdiction where the vehicle is registered and the NHVR .
- The AVE must comply with the administrative requirement of the scheme under which the AVE is approved.

### Jurisdiction

- If the vehicle passes the certification inspection:
  - the jurisdiction certifies that the vehicle has been modified in accordance with the Statement of Requirements (including any specified tests or reports), this Code and the heavy vehicle standards
  - the jurisdiction confirms that the Modification Plate/ Label is affixed to the vehicle
  - the jurisdiction completes an Inspection Report (jurisdiction form), attaching any supporting material (if applicable) such as photos or tests undertaken and provide copies to the owner or operator and the NHVR
  - issues the owner or operator a Modification Certificate and provide a copy to the NHVR
- If the vehicle fails the certification inspection:
  - the jurisdiction must complete an Inspection Report (jurisdiction form), ensuring the reason why the vehicle is unable to be certified and provide copies to the owner or operator and the NHVR
  - the jurisdiction may decide to take any action deemed appropriate (this may include; defecting the vehicle, ground the vehicle or suspend the registration)
  - once notified the NHVR will take action to ensure that the applicant rectifies the non-compliance with the Statement of Requirements, ADRs or vehicle standards. This may include issuing a further Statement of Requirements.

## 8. Modification Certificate

A Modification Certificate is issued to the owner or registered operator of the vehicle after the modification has been approved under section 86 or certified under section 87 by an AVE or jurisdiction. The certificate is an acknowledgment that the vehicle continues to be compliant

after the modification. This enables the vehicle to continue safe operation and to be able to maintain registration.

Once a Modification Certificate is issued in a participating jurisdiction it is to be mutually recognised in all participating jurisdictions. This means that a vehicle owner or registered operator wishing to transfer registration of the vehicle from one participating jurisdiction to another participating jurisdiction will be able to do so without the requirement for re-certification of the modification. The vehicle may require a further inspection subject to particular jurisdiction registration laws.

A Modification Certificate should contain, but is not limited to, the following:

- The name, address and telephone contact details of the AVE/ jurisdiction.
- A unique certificate number which may consist of the registered number of the AVE/ jurisdiction followed by a sequential number.
- A unique Modification Plate/ Label number.
- The date of examination.
- A signed statement to the effect that:
  - if the modification was approved under section 86 by an AVE:
    - the vehicle has been personally examined and continues to comply with the heavy vehicle standards and the modifications have been carried out in accordance with VSB 6.
  - if the modification was approved under section 87 by the NHVR:
    - the vehicle has been personally examined and the modification has been carried out in accordance with the Statement of Requirements.
- A listing of:
  - for section 86 modifications, the particular sections of VSB 6 which have been affected by the modification (e.g. sections K3, M1 & P2); or
  - for section 87 modifications, the applicable VSB 6 code or a code that best describes the area of the modification e.g. HJ code to identify that a modification has been made to a body mounting; or
  - the ADR affected.
- Details of the vehicle:
  - Owner/ operator's name
  - Owner/ operator's address
  - Vehicle registration number (if registered)
  - Vehicle make and model
  - Vehicle body type
  - Month and year of manufacture
  - VIN/Chassis number
  - Engine number
  - Engine capacity
  - Tare mass
  - GVM and GCM/ ATM and GTM
  - Permit number or notice title the vehicle is operating under (if applicable).
- A general description of the nature of the modifications.

Despite the above requirements, in the interim, existing Modification Certificates currently used by jurisdictions are acceptable to the NHVR. However, where a new certificate is to be introduced or an existing certificate is to be re-printed, revised or amended, this new certificate should meet the requirements above as far as practicable.

## 9. Modification Plate/ Label

After the vehicle is modified and approved (section 86) or certified (section 87) the AVE or a jurisdiction must ensure a 'Modification Plate' or 'Modification Label' is affixed, which identifies the heavy vehicle and the modifications carried out. For section 86, the modifications are identified by a series of codes e.g. a suspension substitution is identified with the code 'F1'. For section 87 the modification will be identified by an individual code given by the NHVR in the Statement of Requirements. The applicable VSB 6 code or a code that best describes the area of the modification, e.g. HM code to identify that a modification has been made to the fuel system or the ADR affected.

A Modification Plate/ Label affixed in a participating jurisdiction is a national approval that is to be mutually recognised and accepted in all participating jurisdictions. The Modification Plate/ Label must be in a form acceptable to the NHVR and must be permanently affixed to the vehicle in a conspicuous position (preferably adjacent to the identification plate) to allow ease of inspection.

As a guide a conspicuous position will generally be:

- For bonneted vehicles, in the engine bay on the firewall or an engine compartment side deck.
- For cab over engine vehicles, in the passenger compartment on the inner panel rearward of the driver's or passenger's door.
- For trailers, on the front vertical face of the trailer or on an inward facing vertical face of an A-frame draw bar (where fitted).
- Where these preferred locations are not practicable, in another suitably conspicuous position on a permanent panel.

A mutually recognised Modification Plate/ Label should include, but is not limited to, the following:

- A unique Modification Plate/ Label number.
- Modification Certificate number.
- The name or registration/ reference number of the Approved Vehicle Examiner.
- VIN/ Chassis Number.
- Engine Number.
- Seating Capacity.
- Tyre Size: Front/ Rear.
- Modification GVM/ GCM/ GTM/ ATM (kg).
- The date the Plate /Label was issued.
- A listing of:

- for section 86 modifications, the particular sections of VSB 6 which have been affected by the modification (e.g. sections K3, M1 & P2)<sup>3</sup>; or
- for section 87 modifications, the applicable VSB 6 code or a code that best describes the area of the modification, e.g. HJ code to identify that a modification has been made to a body mounting; or
- the ADRs affected.

Despite the above requirements, existing Modification Plates/ Labels currently used by jurisdictions are acceptable to the NHVR. However, where a new Modification Plate/ Label is to be introduced or an existing Modification Plate/ Label is to be re-printed, revised or amended, this new Modification Plate/ Label should meet the requirements above as far as practicable.

## 10. Non-participating jurisdictions

All non-participating jurisdictions must determine the applicability of this Code to their heavy vehicle modification regimes. These jurisdictions can continue to use VSB 6 in accordance with their existing schemes under their existing legislation. A non-participating jurisdiction may also wish to determine how it will interact with participating jurisdictions using this Code. This will include:

- recognition of inspections, approval and certification of modified vehicles under this Code conducted by AVE's and the NHVR,
- recognition of Modification Certificates issued and Modification Plates/ Labels affixed modified vehicles under the HVNL, and/ or
- exemptions by Permit or Notice issued to modified heavy vehicles by the NHVR.

The issue and recognition of vehicle standards exemption permits and notices are important in terms of their applicability for travel across borders. Non-participating jurisdictions will need to have a defined position on mutual recognition of modifications to guide operators about what requirements apply to the use of heavy vehicles across borders so that issues related to compliance with both the HVNL and any non-participating jurisdiction laws.

### 10.1 Application of Prescribed Standards in non-participating jurisdictions

*Vehicle Standards Bulletin 6* is used as the standard to assess whether vehicles modified prior to supply to market or modified in-service are acceptable to the NHVR and participating registration authorities. Where a non-participating jurisdiction has not adopted the National Regulation or updated their local vehicle standards law to align to the National Regulation, small variations and conflicts may exist.

An example is the requirements for tow coupling under hang standards in Western Australia where a conflict exists between a law of a non-participating jurisdiction and the National Regulation and would require an exemption to travel in a participating jurisdiction.

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<sup>3</sup> While modifications approved by an AVE must be carried out in accordance with VSB 6 the NHVR may approve modifications through a Statement of Requirements that are not compliant to VSB 6, this Code or the heavy vehicle standards.



## 10.2 Approved Vehicle Examiners from non-participating jurisdictions

If an AVE (Authorised Modifier in Western Australia) from a non-participating jurisdiction wishes to approve modifications to heavy vehicles that will be used in a participating jurisdiction they will be required to be authorised to perform the same function in a participating jurisdiction AVE scheme. They will be required to operate under the scheme business rules and to approve vehicles against the Code and the HVNL.

## 10.3 Persons authorised in non-participating jurisdictions

If a person authorised in a non-participating jurisdiction wishes to approve modifications to heavy vehicles for use in a participating jurisdiction they will be required to be a delegate of the NHVR or alternatively they may be able to approved as an AVE in a participating jurisdiction AVE scheme. For the purposes of approving modifications to heavy vehicles without a delegation from the NHVR, any approval would only be applicable to the non-participating jurisdiction in which the person is authorised.

## 11. Definitions

Where the definitions in this Code conflict with the definitions or terms used in the Heavy Vehicle National Law and the Heavy Vehicle (Vehicle Standards) National Regulation, the HVNL and National Regulations take precedence.

**ADR** - see Australian Design Rule.

**Aggregate Trailer Mass – ATM** of a heavy trailer, means the total maximum mass of the trailer, as stated by the manufacturer, together with its load and the mass imposed on the towing vehicle by the trailer when the towing vehicle and trailer are on a horizontal surface.

**Approved Function** – a participating jurisdiction activity performed by an authorised person in an Approved Vehicle Examiner scheme of that jurisdiction.

**Approved Vehicle Examiners** – means a person approved as a vehicle examiner under the national regulations (as referred to in section 731 of the HVNL).

**Australian Design Rule** - means a national standard under section 7 of the *Motor Vehicle Standards Act 1989* of the Commonwealth.

**Authorised Officer** – means

- (a) a police officer declared by a law of a participating jurisdiction to be an authorised officer for the purposes of this Law; or
- (b) a person who holds office under this Law as an authorised officer.

**Combination** - means a group of vehicles consisting of a motor vehicle towing 1 or more other vehicles.

**Compliance Plate** – see identification plate.

**Component Vehicle** – for a heavy combination, means the towing vehicle or another vehicle in the combination.

**Gross Combination Mass** - GCM of a motor vehicle, means the total maximum loaded mass of the motor vehicle and any vehicles it may lawfully tow at any given time—

- (a) if the Regulator has, under section 56, specified the total maximum loaded mass of the motor vehicle and any vehicles it may lawfully tow at any given time—specified by the Regulator under that section; or
- (b) otherwise—stated by the motor vehicle’s manufacturer.

**goods—**

- (a) includes—
  - (i) animals (whether alive or dead); and
  - (ii) a container (whether empty or not); but
- (b) does not include—
  - (i) people; or
  - (ii) fuel, water, lubricants and readily removable equipment required for the normal use of the vehicle or combination in which they are carried; or
  - (iii) personal items used by the driver of the vehicle or combination, or someone else necessary for the normal use of the vehicle, in which they are carried.

**Gross Vehicle Mass – GVM** of a vehicle, means the maximum loaded mass of the vehicle—

- (a) if the Regulator has specified the vehicle’s maximum loaded mass under section 57—specified by the Regulator under that section; or
- (b) otherwise—stated by the vehicle’s manufacturer.

**Heavy Vehicle –**

- (1) For the purposes of this Law, a vehicle is a heavy vehicle if it has a GVM or ATM of more than 4.5t.
- (2) Also, for the purposes of this Law other than in relation to registration under this Law, a combination that includes a vehicle with a GVM or ATM of more than 4.5t is a heavy vehicle.
- (3) However, rolling stock is not a heavy vehicle for the purposes of this Law.
- (4) In this section—

**rolling stock—**

- (1) Rolling stock is a vehicle designed to operate or move on a railway track and includes a locomotive, carriage, rail car, rail motor, light rail vehicle, tram, light inspection vehicle, self-propelled infrastructure maintenance vehicle, trolley, wagon or monorail vehicle.
- (2) A vehicle designed to operate both on and off a railway track is rolling stock when the vehicle is being—
  - (a) operated or moved on a railway track; or
  - (b) maintained, repaired or modified in relation to the operation or movement of the vehicle on a railway track.

**Identification Plate** - means a plate authorised to be placed on a vehicle, or taken to have been placed on a vehicle, under the *Motor Vehicle Standards Act 1989* of the Commonwealth. An identification plate is commonly known as a compliance plate.

**Jurisdictional Function** – a participating jurisdiction Approved Vehicle Examiner scheme.

**Manufacturer** - the name of the person or company who accepts responsibility for compliance with the ‘Australian Design Rules’ and to whom the Compliance Plate Approval certificate is issued.

**Modification Certificate** – a document approved by the NHVR, issued by an AVE or the NHVR approving a heavy vehicle modification.

**Modification Plate/ Label** – a plate or label approved by the NHVR, that has been permanently stamped, engraved or marked displaying information related to a modification of a heavy vehicle.

**National Code of Practice Vehicle Standards Bulletin (VSB) 6 – Heavy Vehicle Modifications** - the name given to VSB 6, comprising Part A – Administrative Aspects and Part B - Technical Aspects, available on the Department of Infrastructure and Regional Development’s website.

**Relevant Scheme** – refers to a participating jurisdiction Approved Vehicle Examiner scheme for the purpose of appointing and managing appropriate persons to certify modifications of heavy vehicles under a participating jurisdiction law.

**Statement of Requirements** – a *Statement of Requirements – Requirements for Modification Approval (Statement of Requirements)* is a document issued by the NHVR that approves a modification to a heavy vehicle and describes the requirements for modifying the heavy vehicle.

**Vehicle Standards Exemption** means—  
vehicle standards exemption (notice); or  
vehicle standards exemption (permit).

**Vehicle Standards Exemption (notice) –**

- (1) The Regulator may, by Commonwealth Gazette notice complying with section 65, exempt, for a period of not more than 5 years, a category of heavy vehicles from the requirement to comply with a heavy vehicle standard.
- (2) An exemption under subsection (1) is a vehicle standards exemption (notice).

**Vehicle Standards Exemption (permit) –**

- (1) The Regulator may, by giving a person a permit as mentioned in section 73, exempt a heavy vehicle from compliance with a heavy vehicle standard for a period of not more than 3 years.
- (2) An exemption under subsection (1) is a vehicle standards exemption (permit).
- (3) A vehicle standards exemption (permit) may apply to 1 or more heavy vehicles.

## 12. Appendix – Modification codes

### VSB6 Modification Codes

The table below outlines what each modification code refers to:

Code	Modification
A1	Engine Substitution
A2	Air Cleaner Substitution
A3	Turbocharger Installation
A4	Exhaust System Alteration
A5	Road Speed Limiter
B1	Transmission Substitutions
C1	Tail Shaft Modification
D1	Rear Axle Installation
D2	Differential Substitution
E1	Front Axle Installation
E2	Steering Alterations
E3	Fitting of Non-standard Rim & Tyre Components
F1	Suspension Substitute
F2	Trailer Suspension Modification
G1	Relocation of Air Brake Component
G2	Installation of Trailer Brake Controls
G3	Trailer Brake System Upgrade
G4	Brake System Certification
G5	Fitting of Auxiliary Brake
G6	Air Operated Accessories
G7	Brake System Substitution or Wheel Base Extension
G8	Approved Design Certification Non-standard Trailer Brake System
H1	Wheel Base Extension
H2	Wheel Base Reduction
H3	Wheel Base Alteration within Manufacturers Options

Code	Modification
H4	Chassis Frame Alteration
H5	Trailer Chassis Frame Modification
J1	Body Mountings
K1	Seat Capacity Alteration
K2	Seat Anchorage & Seat Belt Anchorage Certification
K3	Cabin Conversions
K5	Wheel Chair Occupant Restraint System Installation
M1	Fuel System Alterations
P1	Tow Coupling Installations
P2	Fifth Wheel & Kin Pin Installations
Q1	Installation of Truck Mounted Lifting System
R1	Goods Loading Device Installation
R2	Wheel Chair Loading Installation
S1	GVM/ GCM Rating
S2	GVM Rating for Non-standard Vehicles & Special Vehicles
S3	GCM Rating for Non-standard Vehicles
S7	ATM Rating for Trailers
S8	Road Train Prime Mover Rating
S9	B-Double Rating
S11	Road Train Trailer Rating
S12	ATM Approved Design for a Non-standard Trailer
T1	Construction of Tow Truck
T2	Design of Tow Truck

## Section 87 HVNL Modification Codes

The table below outlines what each modification code refers to:

Code	Modification
HA	Engine and Ancillaries
HB	Transmission Modification
HC	Tail Shaft Modification
HD	Rear Axle and/or Differential Modification
HE	Front Axle or Steering or Rim/ Tyre Modifications
HF	Suspension Modifications
HG	Brake System Modification
HH	Chassis Modification
HJ	Body Mountings
HK	Cabin and seat Modifications
HM	Fuel System Alterations
HP	Tow Coupling Installations
HQ	Installation of Truck Mounted Lifting System Slewing
HR	Goods Loading Device Installation Non Slewing (including Wheel Chair Lifts)
HS	GVM/ GCM Rating
HT	Tow Truck Modifications

## Additional Modification Codes

The table below refers to NHVR Code of Practice for the Approval of Heavy Vehicle Modifications jurisdiction specific modification codes:

Code	Modification
AOV	All Other Vehicles
K6	Child Restraint Anchorage Installation
K7	Motor home Conversion - Heavy Vehicle
L1	Lighting Systems: Installation/ Modification
L2	Lighting Systems: Design
S4	Gross Vehicle Mass Rating – Rigid Omnibus
S5	Gross Vehicle Mass Rating – Articulated Omnibus
S6	Omnibus Licensing Evaluation
S10 A, B, C, D & E	Concessional Livestock Loading – Vehicle Rating
S13	Change of ADR Category
Z1	No AMVCB or Motor Vehicles Standards Act Compliance Plate
Z2	No AMVCB or Motor Vehicles Standards Act ADR Compliance Plate Approval