Exhaust emissions standard compliance

Vehicle inspection requirements manual references

This bulletin gives guidance to vehicle inspectors in applying the following requirements in the VIRM: Entry certification:

• Exhaust – 11-2 Exhaust emissions: Reason for rejection 1.

Application

Under Land Transport Rule: Vehicle Exhaust Emissions 2007, when a vehicle undergoes entry-level certification in New Zealand, proof that the vehicle was manufactured to meet an approved emissions standard is required.

This technical bulletin applies to all vehicles being certified for entry into New Zealand that are required to meet approved exhaust emissions standards.

Acceptable proof of exhaust emissions rule compliance for used vehicles from any country

For a used vehicle imported from any country, a statement of compliance including an approved emissions standard is acceptable evidence of compliance. The emissions standard provided in the statement of compliance must be recorded on the vehicle checksheet.

Statements of compliance from Motor Industry Association manufacturers' representatives

Statements of compliance from the Motor Industry Association of New Zealand (MIA) manufacturers' representatives can use an abbreviated format to refer to emissions standards. In particular, this involves using the terms 'Euro 3' and 'Euro 4' and so on, instead of quoting the relevant UN/ECE regulation or EC directive in full, subject to the following conditions:

- a) This terminology is to be used only on statements of compliance issued by the MIA representatives of the vehicle manufacturers.
- b) By using the abbreviated term, the person signing the statement of compliance is certifying that the vehicle has been formally homologated to the UN/ECE regulation or EC Directive for exhaust emissions that is appropriate to the vehicle type.
- c) The issuer of the statement of compliance must be able to provide, on request, the relevant certification documentation as set out in declaration 2 of the standard statement of compliance.

Acceptable proof of exhaust emissions rule compliance for used vehicles from Japan

- a) For vehicles border checked for entry into New Zealand before 1 February 2008, an original Japanese deregistration, export or completion inspection certificate with an emissions code as a prefix (ie before a hyphen) at the beginning of the industry model code (see circled area on **Figures 1, 2 and 3**).
- b) For vehicles border checked for entry into New Zealand on or after 1 February 2008, an original de-registration, export or completion inspection certificate with an acceptable emissions code listed in **Table 1**, as a prefix (ie before a hyphen) at the beginning of the industry model code (see circled area on **Figures 1**, **2** and **3**).

Note 1 For used vehicles imported from Japan that require fuel consumption information, exhaust emissions data will be printed in the test regime field of the fuel consumption statement.

Exhaust emissions standard compliance (cont.)

Recording the information

This emissions code information must be recorded on the vehicle checksheet and entered into LANDATA.

Enter the **full industry model code** from the de-registration, export or completion inspection certificate, including the emissions code characters, into the 'industry model code' field.

- If the industry model code is prefixed by an emissions code, the 'test regime code' to be recorded in LANDATA is determined by adding a 'J' to the beginning of the emissions code prefix (eg the emissions code prefix CBA is recorded as test regime code JCBA). If a fuel consumption statement shows a different test regime code, record the code from the fuel consumption statement.
- If the industry model code recorded on the de-registration, export or completion inspection certificate does not include an emissions prefix, other evidence of compliance with an approved exhaust emissions standard, such as a statement of compliance or appropriate compliance plates, must be provided. For these vehicles, refer to **Table 3** below to find the applicable 'test regime code' to be entered in LANDATA.

Acceptable proof of exhaust emissions rule compliance for used vehicles imported from Singapore

- If the vehicle is a used Japanese domestic vehicle, the following alternative evidence of compliance may be provided:
 - a) a Singapore de-registration certificate; and
 - b) a Singapore Land Transport Authority (LTA) technical letter listing an approved Japanese emissions code as shown in **Table 1 or 2** below, and
 - c) an outcome notification letter from a TSD agent head office advising that the Singapore LTA technical letter is acceptable documentation.

Acceptable proof of exhaust emissions rule compliance for new or used light vehicles imported from Australia

Which version of ADR 79 that a vehicle complies with can be determined using the date on the ADR compliance plate as follows:

Date on ADR plate	Petrol	Diesel
01/2007-06/2010	Not proven to be compliant	ADR 79/01 (Euro 4)
07/2010 onwards	ADR 79/02 (Euro 4)	ADR 79/01 (Euro 4)

- Note 1 If there is no emissions standard on the plate, the compliance plate approval number must be recorded on the vehicle checksheet.
- Note 2 Some vehicles may comply up to a year in advance of these dates (and up to two years in the case of petrol vehicles complying with ADR 79/02). To confirm compliance in these cases, contact the vehicle manufacturer.
- **Note 3** Diesel vehicles must also comply with ADR 30. If a diesel vehicle has an ADR compliance plate and can be established as complying with the appropriate ADR 79, it also complies with ADR 30.

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Acceptable proof of exhaust emissions rule compliance for new or used heavy vehicles imported from Australia

Which version of ADR 80 that a vehicle complies with can be determined using the date on the ADR compliance plate as follows:

Date on ADR plate	Petrol	Diesel
01/2008 - 12/2010	ADR 80/02	ADR 80/02
01/2011 onwards	ADR 80/03	ADR 80/03

- Note 1 If there is no emissions standard on the plate, the compliance plate approval number must be recorded on the vehicle checksheet.
- Note 2 Some new model vehicles may comply up to a year in advance. Check with the vehicle manufacturer to confirm compliance when certifying new model vehicles.
- Note 3 Diesel vehicles must also comply with ADR 30. If a diesel vehicle has an ADR compliance plate and can be established as complying with the appropriate ADR 80, it also complies with ADR 30.

Acceptable proof of exhaust emissions rule compliance for vehicles from Europe

- 1. If the vehicle is border checked for entry into New Zealand before 1 February 2008:
 - a) an EEC whole vehicle approval plate. The EEC whole vehicle approval number must be recorded on the vehicle checksheet, or
 - b) a UN/ECE compliance plate listing an approved emissions standard. The emissions standard identified on the plate must be recorded on the vehicle checksheet.
- 2. If the vehicle is border checked for entry into New Zealand on or after 1 February 2008:
 - a) a statement of compliance listing an approved emissions standard, or an appropriate EC directive as shown in **Table A** or UN/ECE regulation as shown in **Table B**, or
 - b) a UN/ECE compliance plate listing an approved emissions standard or one of the UN/ECE regulations shown in Table B, or
 - c) an EC Certificate of Conformity (CoC) issued by the vehicle manufacturer for individual passenger cars that have undergone European Commission Whole Vehicle Type Approval (EC WVTA). The CoC is linked to the EC Whole Vehicle Approval Plate - if a vehicle has a CoC, it will also have a Whole Vehicle Approval Plate. A sample CoC is shown in Reference material 49. The emissions standard information is recorded in item 46.1 or 48 of the CoC.

Acceptable proof of exhaust emissions rule compliance for vehicles from the United Kingdom

Any vehicle first registered as new in the UK from 1 October 2007 onwards will be certified to the Euro 4 emission requirements and might meet a higher standard.

If the emission code EURO4, EURO5 or higher is listed on a valid V5C, V308 or VX302 registration documents of a vehicle first registered as new in the UK, it may be accepted as proof of emission compliance.

Light vehicles that were first registered as new in the UK before 1 October 2007 may still be Euro 4 compliant, but will require bit will require further proof of their emission compliance, ie current processes are to be followed.

Any light vehicle ex-UK that is presented for entry certification, that has a valid V5C, V308 or VX302 registration certificate and was first registered as new in the UK on or after 1 October 2007 may be accepted as complying with the Euro 4 emission standard (see Reference material 67 and 68).

Exhaust emissions standard compliance (cont.)

Table A. Translation information for EC Directives

EC Directive	Corresponds to Euro standard		
Light vehicles	Light vehicles		
98/69B/EC	Euro 4		
98/77B/EC			
1999/102B/EC			
2001/1B			
2001/100B/EC			
2002/80B/EC			
2003/76B/EC			
2006/96/EC			
2006/96A/EC			
2006/96B/EC			
715/2007/EC	Euro 5		
692/2008/EC			
692/2008A/EC			
595/2009			
Heavy vehicles			
1999/96B/EC	Euro 4		
2001/27B/EC			
2005/55			

Note 1 If a directive is not shown in Table A and the first number of the directive is a '7' or '8', the emissions level is Euro 0.

Note 2 A EC Directive may be listed independently, or as part of an EC emissions system approval number.

Note 3 A vehicle that meets 2007/46 or later will comply with Euro 4 or better.

Decoding EC emissions system approval numbers

An EC emissions system approval number will be in the following format:

e4*70/220*2003/76B*1234*01

The different parts of an approval number can be decoded as follows:

e4	The lower case 'e' indicates compliance with an EC directive, and the number ('4' in this case, but it will vary) denotes the country in which the approval was issued
70/220	The number 70/220 signifies the base EC Emissions Directive and indicates that the approval is for exhaust emissions. This number will be present in all EC emissions approval numbers
2002/76B	This number indicates the version of the EC emissions directive to which the vehicle

2003/76B This number indicates the version of the EC emissions directive to which the vehicle complies. Reference this number against the above table to determine the emissions level. The '/EC' or '/EEC' suffixes used in the table will not appear in the EC approval number

This is the model-specific approval number. It is not important for determining emissions level and will vary

O1 This is the number of the extension to the emissions approval. It is not important for determining emissions level and will vary

Table B. Translation information for UN/ECE regulations

UN/ECE regulation	Corresponds to Euro standard
Light vehicles	
UN/ECE regulation 83.02	Euro 1
UN/ECE regulation 83.03	Euro 1 (light commercial vehicles only); Euro 2 (passenger cars only)
UN/ECE regulation 83.04	Euro 2
UN/ECE regulation 83.05	Indeterminate – the default emissions level is Euro 3 unless otherwise indicated on the compliance documentation
Heavy vehicles	
UN/ECE regulation 49.02	Euro 2
UN/ECE regulation 49.03	Indeterminate - the default emissions level is Euro 3 unless otherwise indicated on the
UN/ECE regulation 49.04	compliance documentation
UN/ECE regulation 49.05	Euro 4

Note 1 The regulation may be listed independently or within a UN/ECE system approval number.

Decoding UN/ECE emissions system approval numbers

A UN/ECE emissions system approval number will be in one of the following formats:

Format 1: E13*83R00*83R05*1234*01

This format is more likely to be used on statements of compliance.

The different parts of an approval number can be decoded as follows:

E4	The Upper case 'E' indicates compliance with an EC directive, and the number ('4' in this case, but it will vary) denotes the country in which the approval was issued
83R00	The number 83R00 signifies the original UN/ECE Emissions Regulation and indicates that the approval is for exhaust emissions. This number will be present in all UN/ECE emissions approval numbers
83R05	This number indicates the version of the EC emissions directive to which the vehicle complies.
	Reference this number against the above table to determine the emissions level. In this case, '83R05' indicates that the vehicle complies with UN/ECE Regulation 83.05, with '83R04' denoting Regulation 83.04 and so on
1234	This is the model-specific approval number. It is not important for determining emissions level and will vary
01	This is the number of the extension to the emissions approval. It is not important for determining emissions level and will vary

Format 2: E11 83RI - 052439

This format is more likely to be used on UN/ECE compliance plates.

The different parts of the approval number can be decoded as follows:

Exhaust emissions standard compliance (cont.)

- E11 The Upper case 'E' indicates compliance with an EC directive, and the number ('11' in this case, but it will vary) denotes the country in which the approval was issued
- The number 83 preceding the 'R' shows that the vehicle complies with UN/ECE regulation 83 for emissions. The roman numerals (I or II) after the 'R' may not be present but can, in combination with the first two digits of the following number, describe the emissions level (see below)
- The first two digits of the next section indicate the amendment of UN/ECE R83 that the vehicle complies with (ie If it is '04' the vehicle complies with UN/ECE Regulation 83.04)

Special case for light vehicles: If this number is '05' and the numeral immediately following the 'R' is 'I', the vehicle complies with Euro 3 limits. If the numeral immediately following the 'R' is 'II', the vehicle complies with Euro 4 limits.

Special case for heavy vehicles: If this number is '03' or '04' and the numeral immediately following the 'R' is 'I', the vehicle complies with Euro 3 limits. If the numeral immediately following the 'R' is 'II' or 'III', the vehicle complies with Euro 4 limits.

2439 The last 4 digits make up the model-specific approval number

Acceptable proof of exhaust emissions compliance for used vehicles imported from the United States

- 1. If the vehicle is border checked for entry into New Zealand before 1 February 2008, a FMVSS plate with either:
 - a) an EPA plate (see Reference material 35); or
 - b) proof that the vehicle was first registered in the United States or was built for the United States market (indicating the vehicle would have been built to United States vehicle emissions requirements).

This is because a FMVSS plate does not actually refer to a vehicle emissions standard.

If the vehicle has an EPA plate, then the emissions standard identified on the EPA plate must be recorded on the vehicle checksheet; otherwise 'FMVSS' and the date of the FMVSS plate must be recorded on the vehicle checksheet.

2. If the vehicle is border checked for entry into New Zealand on or after 1 February 2008, an FMVSS plate and an EPA decal (see Reference material 35) showing model year the same as or later than the year for which the vehicle must meet an emissions standard.

The EPA decal will contain a statement 'This vehicle conforms to US EPA regulations applicable to YYYY model year.' The 'YYYY' must be the same as or later than a standard shown in *VIRM: Entry certification* section 11-2 as acceptable for certification in New Zealand.

For example, a decal showing model year 2005 would be acceptable for a light petrol vehicle. This would be entered in LANDATA as meeting US2004.

Note 1 Statements of compliance for US vehicles often refer to emissions standards using the terminology 'EPA Federal Tier 1' or 'EPA Federal Tier 2' or similar. The terminology used in Land Transport Rule: Vehicle Exhaust Emissions 2007 for US standards ('US2004' etc) is not used by the vehicle industry. **Table C** can be used to translate.

Table C. Translation information for US standards

Terminology	Refers to US standards
US Federal/EPA Tier 1	US 96
	US 98D/98P
US Federal/EPA Tier 2	US 2001
	US 2004

Proof of exhaust emissions rule compliance for new vehicles

- For **new light vehicles**, the documentation must include proof that the vehicle was manufactured in compliance with an applicable emissions standard.
- For scratch built low-volume vehicles and light vehicles that have had their engine changed, that is either:
 - scratch built in New Zealand on or after 1/05/2008, or
 - scratch built outside New Zealand on or after 1/01/1990 and first registered in New Zealand on or after 1/05/2008, or
 - a light vehicle that has undergone an engine conversion on or after 1/05/2008, and
 - is presented to you for entry certification, will need to be certified to this new standard (**Note 1**).

Determining if a vehicle is certified to this new standard

The low volume certifier will issue a F001 (LVV Statement of Compliance Certificate). This form will list the standards that the vehicle has been certified to and will include *exhaust gas emissions* 90–10. At this point in time there will be no information on the LVV plate (**Note 3**).

- For other low-volume vehicles including scratch-built light vehicles any requirements provided in the Low Volume Vehicle Code must be met. The vehicle must have a low-volume vehicle plate that lists the engine and/or exhaust system in the modifications listed.
- For new heavy vehicles, evidence of compliance (eg a statement of compliance or compliance plate) must include proof that the vehicle was manufactured in compliance with an approved emissions standard.
 - Some manufacturers are directly notifying the NZTA of the emission standards for the models of heavy vehicles that they are importing into New Zealand. Therefore, if a new heavy vehicle is presented for certification and the emissions code (test regime) fields in LANDATA are already populated, additional documentation proving compliance with an approved emissions standard is not needed.
- To help confirm emissions standards compliance for new heavy vehicles imported by the manufacturer's New Zealand representative, refer to Reference Material 43.
- For scratch-built heavy vehicles, evidence must include proof that the vehicle was built in compliance with an approved emissions standard.

Note 1 Does not apply to vehicles of class AB, LA, LB, LC, LD, LE or a low-volume vehicle powered by a two-stroke engine.

Note 2 For details of the emissions standards requirements, see **Table 11-2-4** Approved exhaust emission standards for new petrol, CNG and LPG powered vehicles and **Table 11-2-5** Approved exhaust emission standards for new diesel-powered vehicles in Inspection and certification pages 11-2-4 and 11-2-5.

Note 3 The LANDATA test regime code for a vehicle certified to the LVV emissions standard is 'LZZZZZ'.

Exhaust emissions standard compliance (cont.)

Action

If the vehicle does not have evidence of compliance with an approved emissions standard, the entry inspector must fail the vehicle and refer the vehicle owner to the NZTA's Vehicles Unit (phone 0800 699 000; Private Bag 6995, Wellington 6145) for further advice.

Re-powering heavy vehicles

If a heavy vehicle complies with all standards except exhaust emissions, it may be re-powered with a compliant engine in accordance with *Heavy vehicle specialist certifier memo 59*. Please contact a heavy vehicle engineer (chassis) for more information.

Table 1. Acceptable exhaust emissions codes for petrol, LPG or CNG powered vehicles from Japan

Emission standard	Description	Complying to	Acceptable emissions codes
Japan 05	Japan Safety Regulations for Road Vehicles, Article 31 – Emission Control Device, as revised by the Ministry of Land Infrastructure and Transport Notification No. 1317 of 26 September 2003.	2005 Regulations	Any three digit emissions code for example 'AAA', 'ABA', 'DAA'

Table 2. Acceptable exhaust emissions codes for diesel-powered vehicles from Japan

Emission standard	Description	Complying to	Acceptable emissions codes
Japan 05	Japan Safety Regulations for Road Vehicles, Article 31 – Emission Control Device, as revised by the Ministry of Land Infrastructure and Transport Notification No. 1317 of 26 September 2003.	2005 Regulations	Any three digit emissions code for example 'AAA', 'ABA', 'DAA'

Note for Tables 1 and 2:

1 The 'Test regime code' to be entered in LANDATA is the emissions code shown in the Table, with a J prefix (eg 'CBA' is recorded as 'JCBA').

Table 3. Acceptable exhaust emissions codes from 1/1/2012

Emission standard type	Description	Test regime code
Japan 05	Means Japan Safety Regulations for Road Vehicles, Article 31 – Emission Control Device, as revised by the Ministry of Land Infrastructure and Transport Notification No. 1317 of 26 September 2003	J05/07
Euro IV	European IV	EUR4
Euro V	European V	EUR5
Euro VI	European VI	EUR6
2006/96/EEC	Adaptation of certain Directives in the field of free movement of goods, by reason of the accession of Bulgaria and Romania	E06096
2006/96A/EC	EU Directives Amendment	E06096
2006/96B/EC	EU Directives Amendment	E06096
2003/76B/EC	EU Directives Amendment	E03076

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Emission standard	Description	Test regime
type		code
2002/80B/EC	EU Directives Amendment	E02080
2001/100B/EC	EU Directives Amendment	E01100
2001/1B/EC	EU Directives Amendment	E01001
1999/102B/EC	EU Directives Amendment	E99102
98/77B/EC	Amendment of Directive 70/220/EEC Amendment of Directive 70/220/EEC	E98077
98/69B/EC	Amendment of Directive 70/220/EEC	E98069
715/2007/EC		E71507
692/2008/EC		E69208
692/2008A/EC		E6928A
595/2009		E59509
UN/ECE 83	UN/ECE Regulations	ECE83
UN/ECE 49	UN/ECE Regulations	ECE49
UN/ECE 24	UN/ECE Regulations	ECE 24
Australian ADR 79/01	Emission Control for Light Vehicles	A79/01
Australian ADR 79/02	Emission Control for Light Vehicles	A79/02
Australian ADR 80/02	Emission Control for Heavy Vehicles	A80/02
Australian ADR 80/03	Emission Control for Heavy Vehicles	A80/03
Australian ADR 30/01	Smoke Emission Control for Diesel Vehicles	A30/01
Australian	May be specified as having been tested to a European test. See entries for EURO I -VI	
US2004	Federal Regulation 40 CFR Part 86, Subpart 86.1811-04, Emission standards for light-duty vehicles, light-duty trucks and medium-duty passenger vehicles; OR CFR Part 86, Subpart 86.004-11, Emission standards for 2004 and later model year diesel heavy duty engines; OR	US2004
	Title 13, California Code of Regulations in force December 2004	
US2007	Federal Regulation 40, CFR Part 86, Subpart A 40 86.008-11	US2007
US2008	Federal Regulation 40, CFR Part 86, Subpart A 40 CFR 86.008-10, Emission standards for 2008 and later model year otto-cycle heavy-duty engines and vehicles	US2008

Note 1 All '0's in test regime codes are numbers not letters.

Note 2 Where a specific exemption has been granted, the word 'EXEMPT' will be entered in the test regime field.

Note 3 The LANDATA low volume vehicle code for any low volume vehicle imported into New Zealand is 'LZZZZZ'.

Note 4 For keying fuel consumption as unknown, enter one of the following test regime codes:

AZZZZZ - Australian unknown

EZZZZZ - European unknown

JZZZZZ - Japanese unknown

J999 - Vehicle year 2000 (manufactured in 1999 but first registered in 2000)

UZZZZZ - United States unknown

Exhaust emissions standard compliance (cont.)



Figure 1. Deregistration certificate (Japan) - cars less than 660 cc

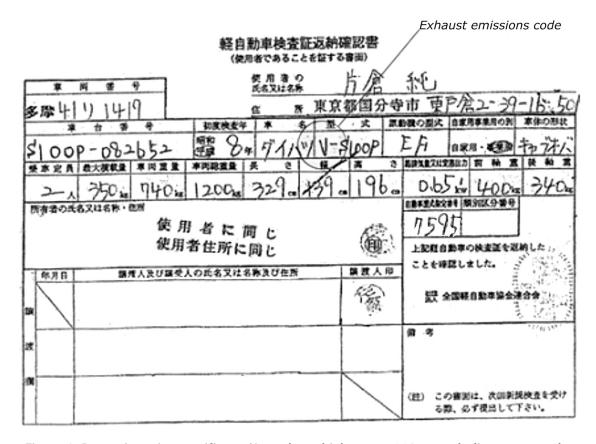


Figure 2. De-registration certificate (Japan) - vehicles over 660 cc excluding motorcycles



Figure 3. De-registration certificate (Japan)