ROAD VEHICLE STANDARDS

Guidance note

Model Reports – Emission control for light vehicles

This guidance note is for all versions of Australian Design Rule (ADR) 79 – Emission Control for Light Vehicles.

It outlines some types of supporting information that will be accepted when demonstrating compliance for vehicles modified or manufactured in accordance with an approved Model Report.

This information should be read in conjunction with the Road Vehicle Standards (Model Reports – Compliance with Standards) Determination 2021, which outlines all the standards (ADRs and other standards) applicable for Model Reports.

Specifically, this guidance note outlines types of supporting information that the department has previously accepted for selected Japanese origin light vehicles that meet Japanese emissions standards introduced after 2009 (petrol/LPG) and 2011 (diesel) to demonstrate compliance with ADR 79/03 or ADR 79/04 (with minor and inconsequential non-compliance).

ADR 79/xx, the Japanese Standards from 2009 and 2018 and IM240

ADR 79/xx – Emission Control for Light Vehicles is based on the technical requirements of United Nations Economic Commission for Europe Regulation No. 83 – Uniform provisions concerning the approval of vehicles with regard to the emissions of pollutants according to engine fuel requirements (UN ECE R 83). Revision 4 of UN ECE R 83 is adopted by ADR 79/03 onwards, while Revision 3 was adopted by earlier ADR versions. Vehicles are tested over a drive cycle (commonly known as the New European Drive Cycle or NEDC) for 1,180 seconds at a range of speeds up to 120km/h and must meet the applicable emission limits at 160,000km of operation.

The Japanese Standard **Japan 09** means Japan Safety Regulations for Road Vehicles, Article 31 – Emission Control Device, as revised by the Ministry of Land Infrastructure and Transport Announcement No. 348 of 2008, as established by the relevant Japan Safety Regulations for Road Vehicles test procedures, technical standards and circulars as evidenced by a Japanese 3-character emissions code starting with the letter L, F, M, R, or Q.

Japan 09, introduced for Japanese vehicles from 2008, is an emissions standard with similar technical requirements to ADR 79/xx, except that the drive cycle (JC08) differs and durability requirements are less. Vehicles are tested at a maximum speed of 80km/h and are required to maintain the emission limits over 80,000km only.

A new standard was introduced in 2018, including Japan 2018 and Japan 2018 Low Emission. In this standard the JC08 test cycle is replaced by a test cycle based on the 'low', 'medium' and 'high' phases of the Worldwide harmonised Light vehicle Test Procedure (WLTP) adopted in United Nations Global Technical Regulation No.15.

Japan 2018 means Japan Safety Regulations for Road Vehicles, Article 31 – Emission Control Device, as revised by the Ministry of Land Infrastructure and Transport Notification No. 1172 of 31 October 2016, as established by the relevant Japan Safety Regulations for Road Vehicles test procedures, technical standards and circulars as evidenced by a Japanese 3-character emissions code starting with the digit 3, 4, 5, 6, or 7.

Japan 2018 Low Emission means Japan Safety Regulations for Road Vehicles, Article 31 – Emission Control Device, as revised by the Ministry of Land Infrastructure and Transport Notification No. 1172 of 31 October 2016, as established by the relevant Japan Safety Regulations for Road Vehicles test procedures, technical standards and circulars, as evidenced by a Japanese 3-character emissions code of 6AA, 6BA, 6LA, 5AA or 5LA, or is an LPG vehicle or CNG vehicle that complies with Japan 2018.

Japan 2018 and Japan 2018 Low Emission have drive cycles of 1,477 seconds with similar technical requirements to ADR 79/04 but still have a lower durability requirement of 80,000km.

The IM240 test is a short, transient test, developed by the United States Environmental Protection Agency, which facilitates the identification of high emitting light duty vehicles. The test comprises a 3.1km route with an average speed of 47.3km/h and a maximum speed of 91.2km/h. The IM240 test tests for compliance with standards relating to carbon monoxide (CO), carbon dioxide (CO2), total hydrocarbons (THC) and nitrogen oxides (NOx) emissions. In Australia, IM 240 tests are conducted in laboratories in a number of cities including Sydney and Melbourne.

Japanese origin vehicles – MVSA evidence for ADR 79/00 to 79/03

The Motor Vehicle Standards (Approval to Place Used Import Plates) Guidelines 2006 (No. 1) made under the former *Motor Vehicle Standards Act 1989* (MVSA) determined that certain vehicles fitted with diesel engines and first supplied to the Japanese market after 1 January 2003 complied with the requirements of ADR 79/00 – Emission Control for Light Vehicles. Some conditions applied to each specific vehicle.

In 2018, the department issued a notice of revised evidence requirements under the determination for light vehicle emissions. The notice endorsed Japan 09 as a way of showing compliance with ADR 79/02 and 79/03 for certain MVSA RAWS vehicles in table 1. The vehicles were limited to Japanese origin vehicles tested to Japan 09 and each vehicle must have travelled less than 80,000km at the time of import.

Table 1

Type	Fuel	Year of Manufacture
Passenger car	Diesel	2011 or later
Passenger car	Petroleum/LPG	2009 or later
Commercial vehicle*	Diesel	2011 or later
Commercial vehicle*	Petroleum/LPG	2009 or later.

*Commercial vehicle provisions apply only up to Gross Vehicle Weight (GVW) of 3500kg.

Road Vehicle Standards legislation options for ADR 79/xx

Where a Model Report is for a vehicle previously provided under the MVSA, a test report dated before 1 July 2021 from an MVSA registered testing facility may be used to demonstrate full compliance with ADR 79/xx (the version tested) using the full technical analysis compliance demonstration method. This is full compliance with no reliance on a Japanese emission standard. Evidence of compliance with ADR 79/01 to /03 can be demonstrated in a similar way to that allowed under the MVSA.

Japan 09, Japan 2018 and Model Report evidence for ADR 79/04

Vehicles of Japanese origin that have been tested to Japan 09, Japan 2018 or Japan 2018 Low Emission may also be considered as substantially compliant (minor and inconsequential non-compliance) to ADR 79/04 under section 76 of the Road Vehicle Standards Rules 2018. Model Report conditions would apply, including:

- On-board diagnostic (OBD) systems must be in working order and must not display any error codes.
- Vehicle must not have travelled more than 80,000km.
- Checks to confirm Model Report conditions are included in the Model Report work instructions and verification checklist(s).

In addition, Model Reports may provide for vehicles exceeding 80,000km if addressing the durability disparity. To remove the Model Report condition limiting travel to 80,000km an IM240 test and analysis could be used to show that the vehicle continues to meet requirements. Where this is the case the Model Report conditions would include:

- On-board diagnostic (OBD) systems must be in working order and must not display any error codes.
- Model Report work instructions must ensure the allowable deterioration checks adequately match the testing benchmarks from the IM240 test and OBD system.
- Checks to confirm Model Report conditions are included in the Model Report work instructions and verification checklist(s).

Note: Vehicles modified in accordance with a Model Report that relies on Japan 09, Japan 2018 or Japan 2018 Low Emission must comply with conditions specified, including the limit on kilometres travelled.

A registered automotive workshop must not modify a vehicle if the odometer reading is greater than 80,000km while the Model Report has a condition limiting vehicles to that threshold. An authorised vehicle verifier should not verify a vehicle that has exceeded the threshold while the Model Report has a condition limiting vehicles to that threshold.

Further information

For further information, please visit the department's website or submit an online enquiry.

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