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25 May 2007

## Questions and answers

### Land Transport Rule: Vehicle Exhaust Emissions Revision

Land Transport Rule: Vehicle Exhaust Emissions Revision [2007]

#### Rule 33001/2

#### Consultation on Draft Rule Revision

#### Q&A

##### **1. What does the draft Rule propose?**

- a) Updates existing minimum standards for new vehicles imported into New Zealand.
- b) Requires tighter emissions standards for used vehicles imported into New Zealand.
- c) Proposes emissions testing of used vehicles at entry to the New Zealand vehicle fleet.
- d) Clarifies that vehicles must be fitted with on-board diagnostic equipment if required by the emissions standard to which they have been manufactured.
- e) Prohibits removal of, or tampering with, a vehicle's emissions control equipment if such an action would adversely affect the vehicle's emissions.
- f) Provides for certain vehicles that do not have to comply with the Rule.

##### **2. What is the legal basis for this Rule?**

The Land Transport Act 1998 provides for the Minister of Transport to make Land Transport Rules that set out standards and requirements relating to vehicle emissions.

#### **Background**

##### **3. What are vehicle exhaust emissions?**

Vehicle exhaust emissions arise from the combustion of the fuel and air mixture in the engine. Exhaust emission gases generally include carbon monoxide (CO), oxides of nitrogen (NOx), hydrocarbons (HC), particulates, and the greenhouse gas carbon dioxide (CO<sub>2</sub>).

##### **4. Why are restrictions on vehicle emissions necessary?**

**Public health:** Poor air quality resulting from harmful vehicle emissions can seriously damage people's health.

- Particulates are primarily associated with diesel vehicles. The most damaging of these are 10 microns or less in size (known as PM<sub>10</sub>), which are so fine they are inhaled directly into the lungs. Particulates lead to premature mortality, and exacerbate respiratory problems such as asthma and bronchitis.
- Carbon monoxide, primarily associated with petrol vehicles, exacerbates heart disease, causes drowsiness and learning difficulties, and has a small effect on mortality rates.

Anyone may be affected by poor air quality, with children and the elderly most at risk. A National Institute of Water and Atmospheric Research Ltd (NIWA) report, commissioned by the Ministry of Transport and released in 2002, estimated that around 400 people were dying prematurely each year from exposure to vehicle emissions.<sup>1</sup> The problem is worse in cities and towns with high traffic rates and congestion where a large proportion of the population is exposed to air pollution.

Vehicle emissions also reduce visibility because of smog and haze.

**Environment:** Transport emissions account for 40 percent of New Zealand's carbon dioxide emissions. Carbon dioxide, a vehicle exhaust emission, is a greenhouse gas associated with climate change. The Ministry of Economic Development's Energy Outlook to 2030 shows that if new policies are not introduced, transport greenhouse gas emissions will increase by 35 percent over the next 25 years.

Newer vehicle technologies, which this Rule revision is encouraging, tend to make vehicles more fuel-efficient, and this in turn can help to reduce greenhouse gases such as carbon dioxide.

**Government objectives:** Reducing harmful emissions contributes to the government objectives in the National Environmental Standards for Air Quality regulated under the Resource Management Act, the New Zealand Transport Strategy's goals of protecting and promoting public health and ensuring environmental sustainability, and objectives of the National Energy Efficiency and Conservation Strategy, the Sustainable Development Programme of Action and the Climate Change Programme.

## **5. What is the existing legislation applying to vehicle exhaust emissions?**

The existing legislation applying to vehicle exhaust emissions is [Land Transport Rule: Vehicle Exhaust Emissions 2006](#).

The 2006 Rule replaced [Land Transport Rule: Vehicle Exhaust Emissions 2003](#), and carries over a 2003 requirement that new vehicles, entering the New Zealand fleet from 1 January 2004, must be manufactured to an approved emissions standard set by New Zealand.

The 2006 Rule also carries over a 2003 requirement that used vehicles entering the New Zealand fleet, manufactured on or after 1 January 1990, must have met an approved standard relevant at the time the vehicle was manufactured.

The 2006 Rule introduced a visible smoke check during all vehicle inspections.

In addition, under [Land Transport \(Road User\) Rule 2004](#), it is an offence to operate a petrol- or diesel-engined vehicle that emits visible smoke for ten seconds or more on the road. Until the 2006 introduction of the visible smoke check at Warrant of Fitness/Certificate of Fitness inspections, this was New Zealand's only in-service emissions requirement. This requirement is enforced by the New Zealand Police.

## **6. Why is the Rule being revised?**

**New vehicles:** The existing 2006 Rule sets out a table of emissions standards that largely existed at the time of its original drafting in 2002. Since then many of these standards have been updated internationally. A revision is required to adopt more stringent future requirements for new vehicles to bring New Zealand into line with other countries.

**Used vehicles:** The level of exhaust emissions from a vehicle is primarily determined by the standard to which the vehicle was manufactured. At present, used imported vehicles manufactured before 1 January 2004 do not have to comply with a minimum emissions standard. Vehicles only have to have been manufactured to a recognised emissions standard applicable to the year of manufacture. They also do not have to demonstrate that they still comply with or meet any minimum standard.

The revised Rule is intended to clearly establish minimum standards for used vehicles. It also introduces a testing regime to ensure that emissions from used vehicle imports have remained within stated limits.

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<sup>1</sup> [Health Effects due to Motor Vehicle Air Pollution, National Institute of Water and Atmospheric Research \(NIWA\), January 2002 \(<http://www.transport.govt.nz/assets/NewPDFs/niwa-report.pdf>\)](#)

The average age of all types of used vehicles entering the New Zealand fleet is increasing. In 2006 the average age of a used petrol vehicle entering New Zealand was 8.1 years and the average age of a used diesel vehicle entering New Zealand was 9.3 years. This compares to slightly over seven years for both in 2000.

Because of the steady increase in the age of vehicles, New Zealand is not benefiting from other technology gains in safety or fuel consumption that have been occurring at the same time as emissions standards have been improved.

### ***7. What else is the government doing to improve air quality associated with emissions from the vehicle fleet?***

Import emissions standards are only one item in a range of government actions designed to tackle the negative effect of transport emissions on air quality. Other measures include the visible smoke check at Warrant of Fitness/Certificate of Fitness time, and improvements in fuel quality. Revised fuel specifications will lead to the reduction of the sulphur content in diesel fuels to 10 parts per million and in petrol to 50 parts per million, further reducing the amount of pollutants emitted from vehicle exhausts.

A range of wider actions can be expected to reduce emissions. These include:

- Further improvements in fuel quality in line with world trends
- Reduction of traffic congestion
- Promotion of public transport
- Introduction of biofuels
- Other policies to promote the removal of older vehicles from the fleet and to reduce emissions from in-service vehicles.

### ***8. How does New Zealand compare with other countries?***

The significant improvements that have occurred in emissions standards, in the countries from which New Zealand has imported vehicles over the past 20 years, have required vehicle manufacturers in those countries to introduce new technologies to achieve the required reductions in vehicle emissions.

The United States and Japan have had emissions standards in place since the late 1970s. Europe has also had emissions controls from the 1970s and has been steadily tightening emissions standards since the early 1990s through its Euro standards regime.

New Zealand emissions standards were put in place in 2003. Without the updating of regulatory controls, vehicles will continue to enter New Zealand with older and less efficient emissions control equipment.

## **NEW VEHICLES: Updating existing minimum emissions standards for new vehicles imported into New Zealand**

### ***9. What are the proposed standards for new petrol vehicles?***

See Appendix: Table 2

### ***10. What are the proposed standards for new diesel vehicles?***

See Appendix: Table 4

### ***11. Why are there so many standards in the tables?***

The tables need to include the standards applied in every jurisdiction New Zealand recognises to cover all potential imports. A Japanese-manufactured vehicle made for the European market may be certified to a different standard than one for the domestic market in Japan, so we have specified exactly the standards required in New Zealand.

**12. How, where and when will new vehicles be certified as adhering to the standard?  
What happens if they fail?**

New vehicle certification will be checked at the time of entry into the New Zealand fleet, by vehicle-inspecting organisations that are required to carry out an entry certification check. The vehicle will not require testing if compliance with the standard at manufacture can be shown by documentation.

If the vehicle is not accompanied by the appropriate proof of standards compliance, the vehicle will not be certified for use on New Zealand roads.

**13. Will introduction of the new standards increase costs for new vehicle dealers?**

As virtually all suppliers of new vehicles for New Zealand also make vehicles for other markets that require high emissions standards, there is not likely to be any increase in cost for dealers.

**14. Will introduction of the new standards increase the price of a new vehicle?**

As vehicles are manufactured for multiple markets to the same standard, there would be no reason for the price of new cars to rise in New Zealand as a result of introduction in this country of updated vehicle emissions standards.

**USED VEHICLES: Require minimum emissions standards for used vehicles imported into New Zealand and introduce emissions testing**

**15. What are the proposed standards for used petrol vehicles?**

See Appendix: Table 5

**16. What are the proposed standards for used diesel vehicles?**

See Appendix: Table 6

**17. Why should used vehicles be tested, if documentation shows that they were originally built to a certain standard?**

There is no guarantee that the used vehicle's emissions technology has not deteriorated or been altered since manufacture. In order to ensure that emissions from the New Zealand vehicle fleet are reduced over time, it is proposed that used vehicles entering the fleet should be tested to ensure they continue to meet an acceptable standard at the time they enter the New Zealand fleet. This is the current practice for safety-related standards.

**18. What form of emissions testing is being proposed?**

As more than 95 percent of vehicles imported to New Zealand are from Japan, it is proposed that New Zealand adopt a test equivalent to Japanese in-service emissions tests and test limits relevant to the vehicle's fuel type. These tests would also be appropriate for those vehicles coming from other countries and built to other emissions standards.

These tests are metered tests measuring tailpipe emissions. For petrol and LPG vehicles it is an idle-test for carbon monoxide and hydrocarbons. The test limits are 1 percent carbon monoxide and 300 parts per million hydrocarbons, for four-stroke or rotary engine petrol vehicles. For two-stroke petrol and LPG vehicles the limits are 4.5 percent carbon monoxide or 7800 parts per million hydrocarbons. For diesel vehicles it will be a snap acceleration test, with a requirement for smoke levels to be less than 25 percent of opacity.

**19. Where and when will the tests be administered to used vehicles? What happens if they fail the test?**

Used vehicles could be tested in Japan prior to being exported to New Zealand, or they could be tested by vehicle inspectors in New Zealand responsible for registering vehicles for legal entry into the New Zealand fleet.

If a vehicle fails the test in New Zealand or Japan, it will need to be brought up to the appropriate standard and retested before being registered in New Zealand.

The practical details of how the testing will be implemented will be developed in conjunction with the motor vehicle industry in a proposed working group.

**20. What costs would be faced by emissions testers if the testing is carried out in New Zealand?**

If the testing of used vehicles is required within New Zealand, testing equipment will have to be purchased by vehicle inspection organisations that currently certify vehicles for entry into the New Zealand fleet.

The price of the equipment will depend partly on the final decision as to the exact nature of the testing procedures, but an appropriate unit is likely to cost \$5,000-\$10,000, although costs can range up to \$20,000.

Testing sites may also have to install appropriate occupational safety and health equipment to deal with any excess harmful emissions arising from the testing procedures. These costs will vary greatly depending on where the testing is carried out.

**21. Will the cost of testing increase the price of a used vehicle?**

The cost of emissions testing, whether carried out in Japan or New Zealand, is estimated to be \$25-\$30 (including the impact of installation costs). The final cost would depend on the exact procedure adopted. This cost would be passed onto the vehicle importer and ultimately to the customer. At present, it costs approximately \$600 to certify and fully register a vehicle for use in New Zealand. The additional emissions test cost would not be significant in this context.

**22. How many vehicles can be expected not to pass the test and what would it cost to repair them?**

In 2006 the Ministry of Transport had a sample of petrol and diesel vehicles tested in Japan<sup>2</sup>. The study found that around 4 percent of the petrol vehicles failed for having excessive carbon monoxide emissions, but around 16 percent failed for excessive hydrocarbon emissions (HC). Subsequent analysis suggests that the high level of failures for excessive HC levels were likely to be rectified very simply, possibly by driving the vehicle around the block to properly warm the engine. Other repairs were also likely to be relatively easy to address, such as new air filters or spark plugs.

The same study showed that over 50 percent of the diesel vehicles tested failed. The study could not diagnose the faults and costs might vary from replacement of an air filter to many thousands of dollars for major repair work.

**ON-BOARD DIAGNOSTIC EQUIPMENT: Vehicles must be fitted with on-board diagnostic (OBD) equipment if required by the emissions standard**

**23. What is on-board diagnostic equipment and why is it important?**

This technology is required to monitor that a vehicle's emissions control equipment is functioning. It is required by most recent emissions standards for petrol and diesel vehicles including Euro 3 for petrol vehicles and Euro 4 for diesel-powered heavy vehicles. It is possible to use an electronic scan tool to check that the equipment is functioning as part of an emissions test.

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<sup>2</sup> Emissions Tail Pipe Test Trial Final Report, JEVIC NZ Ltd, October 2006  
<http://www.transport.govt.nz/results-of-testing-emissions-of-japanese-used-vehicles-1/>

**24. Who will this affect?**

This will affect all importers of new and used vehicles into New Zealand.

**25. Why is this change being proposed?**

There is concern that the 2006 Rule, as currently worded, may be open to interpretation about the requirement to fit OBD equipment. This equipment is essential to ensure that exhaust emissions remain within stated limits over time. For the avoidance of any doubt, the Rule needs to be amended to clarify that on-board diagnostic equipment must be fitted, where required by the relevant emissions standard.

**26. When will this be checked?**

The check will take place during initial vehicle registration procedures for entry into the New Zealand fleet.

**REMOVAL AND TAMPERING: Prohibit removal of, or tampering with, a vehicle's emissions control equipment**

**27. What is emissions control equipment?**

Emissions control equipment includes technologies on petrol vehicles such as catalytic converters and electronic engine management systems (essentially computer chips that monitor the performance of the vehicle's components and adjust these to minimise emissions). On diesel vehicles, emissions control equipment includes exhaust gas recirculation systems, filters, particulate traps and electronic engine management systems. This equipment is designed to manage the harmful emissions produced by vehicles.

**28. Why should removal of, or tampering with, a vehicle's emissions control equipment be prohibited?**

Currently, there is no requirement that emissions control technologies must remain on a vehicle, or continue to be working effectively. There are cases where emissions control technologies are actively tampered with or removed to enhance the vehicle's perceived performance. Equipment may also have been removed because it was damaged in an accident or has developed genuine faults and, under current law, owners have no obligation to maintain, retain or replace such equipment.

A report prepared for the Ministry of Transport indicates that up to 10 percent of petrol vehicles may have had their catalytic converters removed.<sup>3</sup>

The Government wishes to make it clear that removal of, or tampering with, this equipment will not be acceptable.

**29. Who will this affect?**

This would apply only to vehicles first registered for use in New Zealand after the new Rule came into effect. It is not considered practical to apply such a requirement retrospectively.

**30. How will it be administered?**

Used vehicles will undergo a metered emissions test during inspection at the time of their arrival in New Zealand, to ensure that the emissions control equipment is working as intended.

Vehicles are also expected to undergo a visual check to confirm that key elements of emissions control technologies are present, as part of ongoing Warrant of Fitness/Certificate of Fitness inspections associated with the visible smoke check and checking of the exhaust system.

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<sup>3</sup> Vehicle Emissions Pilot Project Report for Petrol Vehicles, Fuel Technology Ltd and Auckland UniServices Ltd, January 2006, <http://www.transport.govt.nz/pilot-project-report-for-petrol-vehicles-index/>

Feedback on the feasibility of visually checking the emissions control equipment during Warrant of Fitness/Certificate of Fitness inspections is sought during consultation on the draft Rule.

The proposed prohibition on removal of, or tampering with, a vehicle's emissions control equipment is important because it lays the foundations for any future metered emissions test. There will no longer be any excuse for a vehicle not to meet a test standard.

### ***31. What will happen if I repair or modify the vehicle?***

If a vehicle's exhaust emissions equipment is modified or repaired, it will be a requirement that the repair enables the vehicle to continue to comply with the standard to which it was built. If there is doubt over whether the modification is appropriate, a vehicle may be required to undergo an emissions test to demonstrate compliance. This provision applies only to vehicles that are required to comply with a specific standard when they enter the New Zealand fleet, as a result of the Rule revision. It does not apply to vehicles that are already part of the in-service fleet.

## **VEHICLES THAT DO NOT HAVE TO COMPLY**

### ***32. Will any vehicles be permitted to not comply with the Rule? Why?***

**New Zealand Defence Force:** It is proposed to remove all New Zealand Defence Force vehicles from the requirement to comply at all times with the proposed standards. Vehicles compliant with the recently introduced Euro 4 standard, and other planned standards, may shut down their engines or operate at lower power when the emissions control equipment is not operating as intended. The New Zealand Defence Force needs to be able to operate its vehicles in remote areas, overseas and in battlefield conditions, where a loss of power would not be acceptable. These vehicles would be permitted to contain an 'Override' facility (also known as a 'defeat device') to counter any loss of power. Such devices are acceptable in similar circumstances in other jurisdictions from which New Zealand imports vehicles.

**Emergency Services:** One of the matters for consultation is whether emergency service vehicles such as ambulances or fire engines should also be permitted to contain an 'Override' or 'defeat' facility.

**Pre-1990:** It is proposed that older vehicles, defined as vehicles manufactured before 1 January 1990, be removed from the requirement to comply with the new standards. These vehicles are limited in number and would often not have been built to any particular emissions standard. Given that diesel vehicles are more solidly constructed than light petrol vehicles, it may be appropriate to consider a longer period for non-compliance by diesel vehicles.

**Immigrants', unique collectable and motor sport:** The Ministry is seeking feedback through the consultation as to whether immigrants', unique collectable and motor sport vehicles should be removed from the requirement to comply. Only a few hundred of these vehicles are imported each year.

Immigrants' vehicles are generally of a high standard, but the owners are unlikely to have documentation to clearly demonstrate their compliance. To prevent any potential abuse of this provision, the Rule proposes the same requirements as are in the [\*Land Transport Rule: Frontal Impact 2001\*](#) that vehicles must have been owned overseas for a period and cannot be sold in New Zealand for a fixed period.

### ***33. Can other vehicles that do not meet the standards continue to be imported?***

A vehicle that does not meet a standard may continue to be imported and used on private roads, be repaired or otherwise brought up to standard if possible, or be broken up for parts.

## **GENERAL**

### ***34. Do these proposed standards apply only to petrol and diesel vehicles?***

The current Rule only applies to petrol and diesel vehicles. Vehicles operating on dual fuels, such as vehicles that operate on both liquefied petroleum gas (LPG) and petrol, would need to adhere to relevant minimum emissions standards as they still operate on petrol.

A small number of dedicated LPG vehicles (that do not also run on petrol) are imported into New Zealand, and it is proposed that minimum standards would apply to those also. The Ministry is seeking comment on whether minimum emissions standards should also be applied to LPG, other fuel types including compressed natural gas (CNG), dedicated biofuel vehicles, and possible future fuels including hydrogen.

Most alternative fuels such as LPG and CNG have lower levels of harmful exhaust emissions than petrol or diesel vehicles.

### ***35. What penalties would apply to vehicles that do not adhere to these minimum emissions standards? What penalties would apply if they do not have On-Board Diagnostic equipment where required?***

Vehicles that do not adhere to minimum emissions standards will not be certified for entry for use on New Zealand roads.

### ***36. Has the government consulted with the motor vehicle industry prior to release of the draft?***

Since mid-2005, the Ministry of Transport has presented on the topic of vehicle exhaust emissions to industry conferences and meetings, and it has held a series of forums and workshops to present and discuss options to reduce harmful vehicle emissions. These meetings have included representatives from trade and industry groups, consumer and motoring industry groups, and central and regional government. Feedback has been used in shaping policy development by the Ministry.

### ***37. When are the new standards expected to take effect?***

It is proposed that the new emissions standards will take effect on 1 January 2008, subject to government approval.

### ***38. Will dealers have a period of grace to cover vehicles in production?***

The government is required to provide a minimum notice of implementation period of 28 days from the date of signing of new legislation. In this particular situation, the motor vehicle industry has been aware of the intention of the proposed Revision since late 2006, when it was announced by the Associate Minister of Transport, Judith Tizard.

Under the current Rule, in some cases for new vehicles there are separate implementation dates for new models and existing models. Existing models are defined as models already in production when the standard came into effect. For some of these models there is a one-year delay in implementation of the relevant standard.

The Ministry is seeking comment on whether it is appropriate to remove the one-year delayed implementation for existing models.

### ***39. Will vehicles that have passed border inspection under the new exhaust emissions standards be tested to ensure they are continuing to meet the emissions standards at subsequent Warrant of Fitness/Certificate of Fitness inspections?***

This Rule revision is targeting vehicles at point of entry into New Zealand. These vehicles will be required to undergo a visible smoke check at subsequent Warrant of Fitness/Certificate of Fitness inspections. Other emissions testing for these vehicles at subsequent Warrant of Fitness/Certificate of Fitness inspection is under consideration but is being treated as a separate project.

***40. Why are you not tackling the existing in-service fleet?***

We will be continuing to review the in-service fleet. This will be a separate project.

We have already introduced the visible smoke check at Warrant of Fitness/Certificate of Fitness inspections.

Under the Road User Rule, it is also illegal for a petrol or diesel-powered vehicle to emit smoke for ten seconds or more on-road.

***41. How do I have my say on the proposals in the draft Rule?***

The consultation (yellow) draft of the Rule together with supporting information is available on the Land Transport NZ website [www.landtransport.govt.nz/consultation/vehicle-exhaust-emissions](http://www.landtransport.govt.nz/consultation/vehicle-exhaust-emissions)

A printed copy can be obtained by contacting the Land Transport New Zealand helpdesk on free phone 0800 699 000. Guidance on making a submission is included in the Overview to the draft Rule.

***42. What will happen to my feedback?***

Comments made in submissions will be analysed and taken into account in redrafting the Rule.

A summary of submissions will be presented to Cabinet, along with recommendations for any changes, when the policy development process is completed.

The final version of the Rule will go to Cabinet for noting and will then be signed by the Minister.

***43. How long do I have to make a submission?***

The public consultation period will last for six weeks, and submissions will close on 9 July 2007.

## APPENDIX

### Current standards for new petrol vehicles

**Table 1: (2006 Rule) Current vehicle exhaust emissions requirements for motor vehicles operated on petrol and presented for inspection in New Zealand for the first time**

Date of manufacture	Approved vehicle emissions standard			
	Vehicles that operate on PETROL			
	Light		Heavy	
	New model	Existing model	New model	Existing model
On or after 1 January 2004 and before 1 January 2005	ADR 79/00; Euro 2; US 2001; or Japan 00/02	No emissions standard requirement	No emissions standard requirement	No emissions standard requirement
On or after 1 January 2005 and before 1 January 2006	ADR 79/00; Euro 2; US 2001; or Japan 00/02	ADR 79/00; Euro 2; US 2001; or Japan 00/02	ADR 80/00; US 96; or Japan 98	No emissions standard requirement
On or after 1 January 2006 and before 1 January 2007	ADR 79/01; Euro 3; US 2001; or Japan 00/02	ADR 79/01; Euro 3; US 2001; or Japan 00/02	ADR 80/01; US 98P; or Japan 00/02	ADR 80/00; US 96; or Japan 98
On or after 1 January 2007	ADR 79/01; Euro 3; US 2001; or Japan 00/02	ADR 79/01; Euro 3; US 2001; or Japan 00/02	ADR 80/01; US 98P; or Japan 00/02	ADR 80/01; US 98P; or Japan 00/02

## Proposed standards for new petrol and LPG vehicles

**Table 2: (Revised Rule) Proposed vehicle exhaust emissions requirements for new petrol and LPG vehicles**

Date of manufacture	Approved vehicle emissions standard			
	Vehicles that operate on PETROL and LPG*			
	Light vehicles		Heavy vehicles	
	New model	Existing model	New model	Existing model
On or after 1 January 2008 and before 1 January 2009	ADR 79/01; Euro 4; US 2004; or Japan 05	ADR 79/01; Euro 3; US 2001; or Japan 00/02	ADR 80/02; Euro 4; US 2004; or Japan 05	ADR 80/02; Euro 4 US 98P; or Japan 00/02
On or after 1 January 2009 and before 1 January 2010	ADR 79/02; Euro 4; US 2004; or Japan 05	ADR 79/01; Euro 4; US 2004; or Japan 05	ADR 80/02; Euro 4; US 2004; or Japan 05	ADR 80/02; Euro 4; US 2004; or Japan 05
On or after 1 January 2010 and before 1 January 2011	ADR 79/02; Euro 4; US 2004; or Japan 05	ADR 79/02; Euro 4; US 2004; or Japan 05	ADR 80/02; Euro 4; US 2004; or Japan 05	ADR 80/02; Euro 4; US 2004; or Japan 05
On or after 1 January 2011 and before 1 January 2012	ADR 79/02; Euro 5; US 2008; or Japan 09	ADR 79/02; Euro 4; US 2004; or Japan 05	ADR 80/02; Euro 4; US 2004; or Japan 05	ADR 80/02; Euro 4; US 2004; or Japan 05
On or after 1 January 2012	ADR 79/02; Euro 5; US 2008; or Japan 09	ADR 79/02; Euro 5; US 2008; or Japan 09	ADR 80/03; Euro 4; US 2008; or Japan 09	ADR 80/03; Euro 4; US 2008; or Japan 09

\* Vehicle operated either on petrol or LPG. If dual fuel, will be tested as a petrol vehicle.

**Current standards for new diesel vehicles**

**Table 3: (2006 Rule) Current vehicle exhaust emissions standards requirements for motor vehicles operated on diesel and presented for inspection in New Zealand for the first time**

<i>Date of manufacture</i>	<b>Approved vehicle emissions standard</b>			
	<b>Vehicles that operate on DIESEL</b>			
	<b>Light</b>		<b>Heavy</b>	
	<b>New model</b>	<b>Existing model</b>	<b>New model</b>	<b>Existing model</b>
On or after 1 January 2004 and before 1 January 2005	ADR 79/00 and ADR 30/01; Euro 2; US 2001; or Japan 02/04	No emissions standard requirement	No emissions standard requirement	No emissions standard requirement
On or after 1 January 2005 and before 1 January 2006 <sup>1</sup>	ADR 79/00 and ADR 30/01; Euro 2; US 2001; or Japan 02/04	ADR 79/00 and ADR 30/01; Euro 2; US 2001; or Japan 02/04	ADR 80/00 and ADR 30/01; Euro 3; US 98D; or Japan 02/04	No emissions standard requirement
On or after 1 January 2006 and before 1 January 2007	ADR 79/00 and ADR 30/01; Euro 2; US 2001; or Japan 02/04	ADR 79/00 and ADR 30/01; Euro 2; US 2001; or Japan 02/04	ADR 80/00 and ADR 30/01; Euro 3; US 98D; or Japan 02/04	ADR 80/00 and ADR 30/01; Euro 3; US 98D; or Japan 02/04
On or after 1 January 2007 and before 1 January 2008	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 80/00 and ADR 30/01; Euro 3; US 2004; or Japan 02/04	ADR 80/00 and ADR 30/01; Euro 3; US 98D; or Japan 02/04
On or after 1 January 2008 and before 1 January 2009	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 80/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 80/00 and ADR 30/01; Euro 3; US 2004; or Japan 02/04
On or after 1 January 2009	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 80/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 80/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04

## Proposed standards for new diesel vehicles

**Table 4: (Revised Rule) Proposed vehicle exhaust emissions requirements for new diesel vehicles**

<i>Date of manufacture</i>	<b>Approved vehicle emissions standard</b>			
	<b>Vehicles that operate on DIESEL</b>			
	<b>Light vehicles</b>		<b>Heavy vehicles</b>	
	<b>New model</b>	<b>Existing model</b>	<b>New model</b>	<b>Existing model</b>
On or after 1 January 2008 and before 1 January 2009	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 05	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 02/04	ADR 80/01 and ADR 30/01; Euro 4; US 2004; or Japan 05	ADR 80/00 and ADR 30/01; Euro 3; US 2004; or Japan 02/04
On or after 1 January 2009 and before 1 January 2010	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 05	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 05	ADR 80/02 and ADR 30/01; Euro 4; US 2007; or Japan 05	ADR 80/02 and ADR 30/01; Euro 4; US 2004; or Japan 05
On or after 1 January 2010 and before 1 January 2011	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 09	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 05	ADR 80/02 and ADR 30/01; Euro 4; US 2007; or Japan 05	ADR 80/02 and ADR 30/01; Euro 4; US 2004; or Japan 05
On or after 1 January 2011 and before 1 January 2012	ADR 79/01 and ADR 30/01; Euro 5; US 2004; or Japan 09	ADR 79/01 and ADR 30/01; Euro 4; US 2004; or Japan 09	ADR 80/03; Euro 5; US 2007; or Japan 09	ADR 80/02 and ADR 30/01; Euro 4; US 2007; or Japan 05
On or after 1 January 2012	ADR 79/01 and ADR 30/01; Euro 5; US 2007; or Japan 09	ADR 79/01 and ADR 30/01; Euro 5; US 2007; or Japan 09	ADR 80/03; Euro 5; US 2007; or Japan 09	ADR 80/03; Euro 5; US 2007; or Japan 09

**Proposed standards for used petrol and LPG Vehicles**

**Table 5: (Revised Rule) Proposed vehicle exhaust emissions requirements for used petrol and LPG vehicles**

Certified for entry into service	Approved vehicle emissions standard		Number of years lag from implementation in Japan
	Vehicles that operate on PETROL & LPG		
	Light vehicles	Heavy vehicles	
On or after 1 January 2008 and before 1 January 2010	ADR 79/01; Euro 3; Japan 00/02; or US 2001	ADR 80/02 Japan 00/02; or US 98P	6–8 (depending on model)
On or after 1 January 2010 and before 1 January 2013	ADR 79/02 Euro 4; Japan 05; or US 2004	ADR 80/02; Euro 4; Japan 05; or US 2004	5
On or after 1 January 2013	ADR 79/02; Euro 5; Japan 09; or US 2008	ADR 80/03; Euro 5; Japan 09; or US 2008	4

**Proposed standards for used diesel vehicles**

**Table 6: (Revised Rule) Proposed vehicle exhaust emissions requirements for used diesel vehicles**

Certified for entry into service	Approved vehicle emissions standard		Number of years lag from implementation in Japan
	Vehicles that operate on DIESEL		
	Light vehicles	Heavy vehicles	
On or after 1 January 2008 and before 1 January 2009	ADR 30/01 and ADR 79/01; Euro 4; Japan 02/04; or US 2004;	ADR 30/01 and ADR 80/00 Euro 3; Japan 02/04; or US 2004;	4–6 (depending on model)
On or after 1 January 2009 and before 1 January 2010	ADR 30/01 and ADR 79/01; Euro 4; Japan 02/04; or US 2004	ADR 30/01 and ADR 80/02; Euro 4; Japan 02/04; or US 2004	5–7
On or after 1 January 2010 and before 1 January 2013	ADR 30/01 and ADR 79/01; Euro 4; Japan 05; or US 2004	ADR 30/01 and ADR 80/02; Euro 4; Japan 05; or US 2004	5
On or after 1 January 2013	ADR 30/01 and ADR 79/01; Euro 5; Japan 09; or US 2007	ADR 80/03; Euro 5 Japan 09; or US 2007	4

## Notes to Tables

a) A **new vehicle** is generally defined as a vehicle that has not been registered for use in New Zealand or any other country. A **used vehicle** is generally defined as a vehicle that has not been registered for use in New Zealand or elsewhere. A full definition is given in the Rule.

b) **Heavy vehicles** include larger buses, and medium to heavy weight trucks, or any other vehicle that exceeds 3500 kg in gross vehicle mass. A full definition is given in the Rule.

c) **New-model new vehicles** are models in their first year of manufacture. **Existing-model new vehicles** are vehicles that are in production but are not new models that year. The current Rule contains different implementation dates for new-model and existing-model new vehicles. The government is seeking feedback as to whether separate dates continue to be justified.

d) **New vehicle implementation delays:** New vehicles imported after 1 January 2008 would have to comply with the updated standards. This would reduce the current delay behind Japanese standards to three years, equivalent to the current delay behind European (Euro) standards. It is proposed that in following years New Zealand then reduces the delay for the introduction of new vehicle standards to two years.

e) **ADR** stands for Australian Design Rules, which in the case of emissions standards are identical to the Euro standards. The standards are listed in full in the draft Rule.

f) The **United States** adopted Tier 2 standards on December 21 1999 with a phase-in implementation schedule from 2004-2009 (known as US 2004 or Tier 2). Light vehicles will need to be fully compliant in the US by 2007 and heavy vehicles by 2009. US 2004 and Euro 4 are equivalent standards.

g) The **Euro 5 and Japan 09** standards has been published but, at the time the draft Rule was issued for consultation, had not been legally adopted in their relevant jurisdictions. Should the standards be legally adopted before the Rule is finalised, it is proposed that they will be included in the final Rule. Should they not be legally adopted before the Rule is finalised, all reference to them will be removed and they will be included later by separate amendment.

h) **The Australian standard ADR 79/02** is effectively identical to Euro 4 for petrol light vehicles. Though Euro 4 has been required in Europe for some time, Australian law does not require it for new-model petrol vehicles till 1 July 2008. To avoid inconsistency, the draft Rule proposes that ADR 79/02 be adopted from 1 January 2009 for new models and from 1 January 2010 for existing models. Vehicles coming from Europe would have to meet the Euro 4 standard from 1 January 2008 – one year earlier than vehicles coming from Australia. Comment is sought on how the introduction of Euro 4 and ADR 79/02 may be reconciled.