

## ANNEX 1

### REGULATORY IMPACT STATEMENTS

The following are the Regulatory Impact Statements for the amendment of the Land Transport Rule: Vehicle Exhaust Emissions 2003 (the 2003 Rule) to produce Land Transport Rule: Vehicle Exhaust Emissions 2006 (the 2006 Rule).

The 2006 Rule makes two separate changes. The first proposes a deferment in the implementation of the emission standard known as Euro 4 for diesel-powered heavy vehicles. The second proposes New Zealand's first in-service emission test. These will have quite different impacts and are treated separately in the two following regulatory impact statements.

#### **Deferring the introduction of Euro 4 vehicle emissions standards for heavy vehicles by 12 months**

##### **Statement of the Nature and Magnitude of the Problem and the Need for Government Action**

The 2003 Rule sets out a table of emission standards new vehicles must be built to before they can be certified for use in New Zealand. Standards of increasing stringency are introduced for new vehicles according to an agreed timetable roughly in line with when they are required in overseas jurisdictions. For each year, the Rule provides a range of broadly equivalent standards from the four jurisdictions from which our vehicles are sourced: Japan, Europe (Euro standards), Australia (Australian Design Rules (ADR)) and the USA. Note: ADR emissions standards are identical to Euro standards.

Under the 2003 Rule, from 1 January 2007 diesel-powered heavy vehicles (those with gross vehicle mass over 3500kg) built to Euro and equivalent ADR standards must comply with the Euro 4 (or ADR 80/81) emission standard. It requires compliance with the Euro 4 standard for new-model diesel heavy vehicles after 1 January 2007 and existing-model diesel heavy vehicles after 1 January 2008. Note: New-model vehicles are defined as vehicles that have a date of manufacture occurring in the same calendar year as that in which the particular model of the vehicle was first manufactured. Existing models are those models that were already in production when the Rule came into effect.

##### ***Euro 4 implementation dates***

Europe		Australia (ADR80/81)		New Zealand (Current)		New Zealand (Proposed)	
New vehicle models	Existing vehicle models	New vehicle models	Existing vehicle models	New vehicle models	Existing vehicle models	New vehicle models	Existing vehicle models
Oct 06	Oct 08	Jan 07	Jan 08	Jan 07	Jan 08	Jan 08	Jan 09

Although the 2003 Rule requires new vehicles to meet increasingly stringent emissions standards, used vehicles (mainly imported from Japan) are only required to have been built to the emission standard applicable at the time of manufacture. Thus, a vehicle made in 1996 only needs to have been built to the standard relevant for 1996. Approximately 60% of diesel-powered heavy vehicle imports are used vehicles and those imported in 2005 had an average age of 10.3 years. Until 2002 Japan had relatively weak emission standards for diesel-powered heavy vehicles in comparison with the US or Europe. These older Japanese vehicles are therefore likely to emit a much higher level of pollutants. The 2003 Rule does not specify implementation dates for Japanese or US standards equivalent to Euro 4. Cabinet has already agreed that Ministry of Transport (MOT) should review and update the table of approved emission standards [CBC Min (05) 20/11 refers] including Japanese and US standards. Draft proposals are expected to be available for public comment in late 2006.

In addition to concerns over the dates that Euro 4 will be implemented in Europe, several other issues make the deferment of the introduction of the Euro 4 standard desirable.

Vehicle manufacturers have needed to solve a range of technical issues in order for vehicles to meet Euro 4 and the other equivalent standards. In part, these technical issues delayed formal confirmation of the standard by the European Community. The EU did not confirm until October 2005 the dates from which European diesel-powered heavy vehicles must comply with Euro 4. About 20% of annual new diesel-powered heavy vehicle imports (~1,000) vehicles are imported directly from Europe.

In Europe, new models must comply from October 2006, although existing models already in production before October 2006 do not have to comply until October 2008. The 1 January 2008 implementation of Euro 4 for existing models currently in the 2003 Rule would therefore mean New Zealand importers were required to move to introduce the Euro 4 standard for existing model vehicles ahead of their European suppliers. This may create difficulties for the New Zealand importers that source vehicles directly from Europe.

For new models of heavy vehicles, there is generally a time lag of six to twelve months from a model being available in Europe or Australia and its availability in New Zealand. The motor industry advises this is because New Zealand imports relatively few heavy vehicles. Because of New Zealand's unique Road User Charges regime and heavy vehicle weight limits, we have different vehicle requirements than Europe and Australia. Vehicles are therefore ordered specifically and are subject to supply delays and shipping times.

In 2005 approximately 4300 new diesel-powered heavy vehicles entered the country, imported from a range of countries. Most imports were specified as having been built to the Euro emission standards although the majority were actually built in Japan. As noted, the 2003 Rule also recognises broadly comparable standards from other regimes that these vehicles could have been certified to. As the more stringent standards had not yet been formally adopted in their respective regimes when the 2003 Rule was developed, the acceptable US and Japanese standards in the 2003 Rule for 2007 and 2008 are less stringent than Euro 4. Compliance with Euro 4 is expected to add \$5000 – 7000 to the cost of vehicles, regardless of size or the

technology used to reduce emissions, over previous models. This implies that manufacturers that could continue to supply vehicles, or could re-certify their vehicles as having been built to US or Japanese standards, would have a price advantage over those that could only supply “new-model” vehicles from Europe built to the Euro 4 standard. This would exist until the relevant US and Japanese standards are updated.

In order to achieve the Euro 4 standard a number of manufacturers, mainly from Europe, have opted for the use of a technology to reduce emissions from diesel-powered heavy vehicles that requires the supply of urea manufactured to a specific technical standard (NB: In this process, known as selective catalyst reduction (SCR), urea is injected into the vehicle’s exhaust system, where it reacts to neutralise the harmful nitrogen oxides (NOx)). An alternative technology, known as exhaust gas recirculation (EGR) does not require urea. It is not known which of these competing technologies will be used in coming years as they have different advantages and disadvantages. It is likely that manufacturers will need to use a combination of both EGR and SCR to meet future emission standards (such as Euro 5).

Largely because there are not yet any Euro 4 vehicles in New Zealand that require it, our transport industry has not established a urea supply and distribution infrastructure. It is likely that urea will need to be made available throughout New Zealand before SCR vehicles can be widely used

### **Statement of the Public Policy Objective(s)**

The public policy objectives are to:

- Avoid importers of vehicles built to Euro emission standards facing unfair costs by being required to implement a more stringent and therefore more expensive emission standard ahead of those importing vehicles built to other approved, but lower standards.
- Maximise compliance of imported heavy diesel vehicles with Euro 4 emissions standards;
- Ensure environmental sustainability through the reduction of vehicle emissions over the longer term;
- Contribute to the National Energy Efficiency and Conservation Strategy, the Sustainable Development Programme of Action and the Climate Change Programme.

### **Statement of Feasible Options (Regulatory and/or Non-Regulatory) That May Constitute Viable Means For Achieving the Desired Objective(s)**

#### **Regulatory Options**

Option 1: Status Quo: Leave the 2003 Rule as it is: Leaving the 2003 Rule unchanged would be unsatisfactory. It would impose economic costs and create disruption for vehicle importers who may be required to supply existing-model Euro 4 vehicles ahead of when their European suppliers are required to supply them. Even where supplies of Euro 4 compliant vehicles are available, these may face unreasonable competition from those able to source lower cost new vehicles from other complying regimes, which may be built to lower emission standards. They

would also face increased competition from importers of used vehicles that may meet even lower standards.

In addition, those European truck manufacturers that have opted to use SCR usually produce all, or most of their models with SCR. Equally, those that use EGR tend to use it for all of their vehicles. If New Zealand operators could only purchase EGR models this would limit the choice of models for New Zealand vehicle purchasers. Onboard sensors are programmed to not let the vehicle operate without the appropriate standard of urea. Whilst such operators could purchase vehicles that use the alternative EGR technology, EGR is not suited to all vehicle applications. In addition, many European truck manufacturers only produce only SCR versions of some models. If New Zealand operators could only purchase EGR models this would limit the choice of models for New Zealand vehicle purchasers.

Option 2: Delay the implementation dates for Euro 4 by one year each, but take no further action: This would provide a larger source of complying vehicles and provide time for the MOT to begin revision of the Vehicle Exhaust Emissions Rule to incorporate more stringent emission standards from other regimes including US and Japan, so that importers of diesel-powered heavy vehicles built to Euro emission standards would not be unfairly disadvantaged from the legislation. However, this would not ensure the necessary infrastructural changes regarding urea.

Option 3: Adoption of New Zealand technical standard for urea, but leave the 2003 Rule unchanged: The New Zealand vehicle industry has identified the lack of a New Zealand standard for urea as an impediment to development of a New Zealand industry manufacturing appropriate grade of urea. Although supplies of urea could be imported made up, local manufacture, either from raw materials or concentrate, is considered desirable because the urea solution is largely water and therefore relatively expensive to transport long distances. MOT is working with Standards New Zealand to adopt the international technical standard for urea in New Zealand.

The MOT will also work with urea suppliers to ensure there are no unanticipated obstacles to the adoption of this standard or to the distribution of urea. The necessary infrastructure to import and distribute the urea is not currently in place and it is not likely it would be able to be in place before the 1 January 2007 date for new vehicles meeting Euro 4 emissions standards under the new 2003 Rule.

### **Preferred Option**

Delay the implementation of Euro 4 standard, adopt technical standard for urea and work on issues associated with supply of urea: To avoid unreasonable economic costs and to minimise disruption for vehicle importers MOT proposes to delay the implementation of the Euro 4 standard by one year. At the same time MOT proposes to work with Standards NZ to assist with adoption of an appropriate quality standard for urea to ensure that a practical and workable solution will arise and can be used in setting in place the necessary infrastructure. As already agreed separately by Cabinet, MOT will also work to update emission standards for both new and used vehicles to ensure that more stringent standards from all regions are incorporated in the Rule.

It is likely that diesel-powered heavy vehicle importers will be active in promoting the development of urea infrastructure, but this is not part of their core business. As currently happens with vehicle fuel and other consumable items, it is likely that urea will be provided by third parties.

This proposal would be promulgated under the new Land Transport Rule: Vehicle Exhaust Emissions 2006.

### **Statement of the Net Benefit of the Proposal, Including the Total Regulatory Costs (Administrative, Compliance and Economic Costs) and Benefits (Including Non-Quantifiable Benefits) Of the Proposal, and Other Feasible Options**

#### **Government**

There are no direct monetary costs above baseline expenditure to Government from the proposed change.

The legal requirement to implement the Euro 4 emission standard for new vehicles would lag other regions, such as Japan and the EU.

Delaying the implementation by a year will aid in ensuring higher compliance with the Euro 4 emission standard.

#### **Diesel- powered heavy vehicle importers**

The preferred option will prevent additional direct financial costs (in 2007 for new vehicle models and in 2008 for existing vehicle models) for importers of diesel-powered heavy vehicles built to Euro emission standards and for the wider transport sector by not requiring them to meet more stringent emission standards ahead of their competitors. Euro 4 compliant vehicles are expected to cost approximately \$5000 – \$7000 more than Euro 3 models. It would also reduce costs for importers who may opt to have new vehicles recertified to other, lower, but currently approved standards.

Appropriate urea infrastructure will enable New Zealand vehicle importers to supply vehicles using SCR, (which requires the urea) and not put them at a competitive disadvantage over those vehicle importers supplying vehicles using the competing EGR technology.

#### **Urea suppliers and distributors**

Deferring the mandatory introduction of Euro 4 will also allow greater time for urea suppliers and distributors to develop the appropriate infrastructure to import, manufacture, distribute and retail the urea to vehicle owners. By delaying implementation and developing appropriate technical standards this option will provide business opportunities for urea suppliers and distributors and hence room for economic growth. By contrast the status quo will hamper this.

#### **Consumers**

The deferment by one year would prevent the extra costs of meeting the more stringent Euro 4 standards earlier and there would be no risk of these being passed onto consumers.

Allowing time for the appropriate supplies of urea to be available will ensure that New Zealand vehicle purchasers can choose safely choose the most appropriate emissions reduction solution for their particular need. Purchasers will not be restricted to one of the two competing technologies.

### **Society**

The preferred option will, over the longer term, improve compliance with the law and reduce costs. Vehicle importers will be able to more easily source Euro 4 compliant vehicles and will be less likely to import used Japanese vehicles built to much lower standards instead. Deferring the introduction of the Euro 4 emissions standard for diesel-powered heavy vehicles may allow a small additional amount of air pollution than would otherwise have occurred by allowing vehicles built to a lower standard to be imported for one further year. It is not possible to quantify any increase in air pollution, as it is not possible to predict if importers would re-certify vehicles, import additional lower standard vehicles prior to the deadline, or import used vehicles instead of importing Euro 4 compliant vehicles. Any increase in the import of used Japanese diesel-powered heavy vehicles would likely far offset any emissions gains from the introduction of the Euro 4 standard as originally planned.

### **Statement of Consultation Undertaken**

#### **Stakeholder Consultation**

Public consultation was undertaken during the formal Rule-making process and at the same time as consultation on the visible smoke check. A draft Rule, known as a 'yellow' draft was issued for public consultation in January 2006. 104 submissions were received from a wide range of industry groups, stakeholders, interested parties and the public. Around 40 submissions commented on the deferment specifically.

The proposed deferment was strongly supported by those in the transport industry who cited concerns over increased costs to purchasers and concerns over the supply of urea in New Zealand. A number of submissions argued for even longer deferral in order to allow the advantages and disadvantages of the competing emission reduction technologies to be established through "real world" testing in use.

Submissions from central and local government and private citizens generally opposed the deferment, arguing that NZ should not delay introduction of emission standards due to its air quality concerns, especially in Auckland. Many argued that NZ had sufficient supplies of urea, although they did not address issues of the quality or lack of supply infrastructure.

No changes were made to the draft Rule as a result of the submissions.

#### **Government Departments/Agencies Consultation**

Twenty three government departments and agencies were sent copies of the draft Rule as part of the consultation process. The Ministry of Economic Development, Transit New Zealand, Land Transport New Zealand, Local Government New Zealand and Auckland Regional Council made submissions on the draft Rule. Their views are reflected above. Departments were consulted as part of the development of the

Cabinet Paper noting the implementation of the Rule and have agreed to the contents of the paper.

MED expressed concern that one of the reasons for having introduced low sulphur diesel (50ppm sulphur) in 2006 was to allow the introduction, in 2007, of Euro 4 (Euro 4 requires low sulphur fuel for the emissions control equipment to function properly). This is acknowledged. However, low sulphur diesel, simply by having less sulphur in it, offers significant reductions in emissions from all of the 500,000 existing in-service diesel vehicles, regardless of their emissions standard. These benefits far outweigh any possible cost from the deferment of the introduction of Euro 4 for new vehicles. The Ministry also notes that the 2006 Rule will only set a minimum standard. It is aware that importers have, in light of the availability of the low sulphur fuel, already begun to import Euro 4 specified vehicles in advance of the Rule's requirements in order to meet specific client needs.

No changes were made to the draft Rule as a result of the submissions.

## **REGULATORY IMPACT STATEMENT**

### **Introduction of visible smoke check at vehicle inspection**

#### **Statement of the Nature and Magnitude of the Problem and the Need for Government Action**

Emissions from motor vehicles are a major source of air pollution in New Zealand, especially in the Auckland Region. A 2002 study by the National Institute of Water and Atmosphere (NIWA) estimated that there were 399 premature deaths caused per annum by air pollution from vehicles. In 2005 the *Surface Transport Costs and Charges Study* concluded that there were annual environmental costs of \$442 million associated with exhaust emissions.

The National Environmental Standards for Air Quality (NES AQ) were introduced in 2004 and are implemented by regional government who are required to make sure that emissions of listed pollutants are below specified levels by 2013. Reducing harmful vehicle emissions will help regional government comply with the Standards.

As a result of the 2002 NIWA study Cabinet agreed to the development of a mandatory emission screening programme for used imported and in-service vehicles. This was to be implemented in 2006 [CAB Min (03) 32/3C refers]. However, following the results of an evaluation programme the Associate Minister of Transport announced in April 2005 that entry and in-service emission screening would not proceed. At present, the only on-road emissions test is set out in the Land Transport (Road User) Rule 2004. This requires that a driver must not operate a motor vehicle that emits a continuous stream of smoke for ten seconds or more. It is often referred to as the “10 second rule” and is enforced by the Police. Approximately 300 infringement notices are issued each year.

As part of a package of measures to tackle vehicle emissions in the absence of in-service testing, in June 2005 Cabinet agreed that New Zealand would adopt a visible smoke check at vehicle inspection as a low cost alternative to the proposed metered test [POL Min (05) 16/20 refers]. The paper recommended that the visible check would be introduced through amending the Land Transport Vehicle Equipment Rule 2004. The paper did not discuss how the test would be implemented and agreed that the MOT should “further investigate improvements in the effectiveness of the visible smoke test”. The paper did not provide details of the test, but implied it would be of ten seconds in length.

Subsequent advice indicated the test could not be implemented through the Vehicle Equipment Rule and that an amendment to the 2003 Vehicle Exhaust Emissions Rule would be the most appropriate way to implement the test.

Although many harmful pollutants are invisible, visible smoke in a petrol engine is usually indicative of broader engine failure, likely to contribute to high emissions. US research ([http://info.sen.ca.gov/pub/bill/asm/ab\\_1851-1900/ab\\_1870\\_cfa\\_20060426\\_165445\\_asm\\_floor.html](http://info.sen.ca.gov/pub/bill/asm/ab_1851-1900/ab_1870_cfa_20060426_165445_asm_floor.html)) indicates that smoke is in itself also harmful and a source of particulate emissions. For diesel engines, most in-service emission tests use smoke meters to identify

smoky vehicles. However, the MOT evaluation programme for the in-service emission tests demonstrated that inspectors could consistently identify high emitting vehicles by eye.

### **Statement of the Public Policy Objective(s)**

The public policy objectives are to:

- Implement a visible smoke check to reduce harmful emissions from the New Zealand vehicle fleet in a manner that does not pose undue costs or cause unnecessary disruption to motorists or the testing industry
- Contribute to the implantation of the NES AQ;
- Ensure environmental sustainability through the reduction of vehicle emissions over the longer term, thereby contributing to the New Zealand Transport Strategy's goals of protecting and promoting public health and ensuring environmental sustainability; and
- Contribute to the National Energy Efficiency and Conservation Strategy, the Sustainable Development Programme of Action and the Climate Change Programme.

### **Statement of Feasible Options (Regulatory and/or Non-Regulatory) That May Constitute Viable Means For Achieving the Desired Objective(s)**

Option 1: Status Quo: The existing 10 second rule establishes operational requirements that road users must adhere to when using vehicles on public roads, but does not cover vehicle inspections. There is no legal authority for vehicle inspectors to enforce requirements in the Road User Rule at time of Warrant and Certificate of Fitness (WoF/CoF) inspections or at time of first certification. This is not satisfactory.

#### **Non-Regulatory Options**

MOT plans to conduct a nationwide publicity campaign commencing in the second half of 2006 to encourage vehicle owners to take actions to reduce emissions from their vehicles. There is no way to judge the effectiveness of this campaign in advance. Previous region-wide campaigns in Auckland have received high popular awareness, but have not achieved a measurable change in region-wide emissions.

Education can be expected to be part of a programme to reduce emissions, but is unlikely on its own to achieve the level of reductions required to reduce the health costs.

#### **Regulatory Options**

Option 2: Increase enforcement of the existing 10 second Rule by Police: MOT is investigating providing additional funding to the police to increase the priority of enforcement of the 10 second Rule. This is an approach taken for some road safety

issues. However, drivers caught by police pay a fine and are not required to repair their vehicles. This option is unlikely to improve air quality appreciably.

Option 3: Implement a check for visible smoke at vehicle inspections: As noted, Cabinet has already agreed to the introduction of a check for visible smoke at WoF/CoF. A visible check has the advantage that it can be implemented relatively quickly and at low cost as it would not require any new equipment or training. A visible check will not identify those vehicles emitting only those pollutants that are invisible, but it is a useful test that will identify the very worst emitting vehicles.

A new version of the 2003 Rule is required in order that this test to take place. The 2003 Rule refers only to emissions requirements at manufacture. It will be replaced by a new rule (the 2006 Rule) that will include the visible smoke test both in-service at WoF/CoF and for used vehicles at the time of their first certification.

Because the test that will be carried out at WoF/CoF is not under load (i.e. the vehicle will not be moving) and this is when many vehicles will exhibit the maximum amount of visible smoke, it was considered appropriate to make the in-service test five seconds in length. The five second test length and the proposed testing procedures were also taken from those currently in use in the UK. The on road and in-service visible smoke tests are therefore not the same. They will be enforced separately.

### **Preferred Option**

Option 4: Implement a check for visible smoke at vehicle inspections and carry out a public education campaign to encourage all vehicle owners to maintain their vehicles. Amend the 2003 Vehicle Exhaust Rule to become the 2006 Vehicle Exhaust Rule:

The proposed test for visible smoke will be separate and different from the on-road test. It is based on one operating in the UK that all vehicles undergoing the equivalent of a WoF/CoF test must undertake. It will require qualified vehicle inspectors to test for visible smoke for five or more seconds while the vehicle is at idle and while being accelerated to 2,500 RPM. Those vehicles that exhibit smoke at either part of the test will fail their WoF/CoF inspection. As with other WoF/CoF inspection items, owners will be required to make suitable repairs before they can pass. The test intended to come into effect on 27 October, being approximately three months after the Rule is signed.

The 2006 Rule makes specific allowance for vehicles which because of their original design cannot pass a visible smoke test. These vehicles may include those with two-stroke engines and a small number of classic cars built before harmful emissions were considered a problem. Owners of these vehicles will be required to provide suitable proof that their vehicle cannot comply.

The check for visible smoke at WoF/CoF is considered a useful test targeting the worst vehicles. However the vast majority of vehicles will not be affected by it. The Ministry therefore proposes to use the publicity opportunity of the launch of a visible smoke check to also launch a wider, year long public education campaign to inform vehicle owners of the test, and to encourage all vehicle owners to tune their vehicles.

The campaign will target motorists while they are in their cars. It will employ a range of media which will focus on radio advertising but will also include print, billboards and electronic media to provide maximum cost benefit. The campaign will commence on 1 August 2006 and run till mid-2007. The MOT is also working with the Motor Trade Association (MTA), which represents most testing facilities and most vehicle repair workshops, on a joint awareness programme. This will produce publicity material to distribute to the public at testing facilities with advice about the tests and how owners can reduce emissions. It is also expected to include additional incentives, such as a prize draw, to encourage vehicle owners to tune their vehicles.

The combination of the test and the publicity campaigns is expected to provide significantly greater reduction in fleet emissions than either measure on its own.

### **Statement of the Net Benefit of the Proposal, Including the Total Regulatory Costs (Administrative, Compliance and Economic Costs) and Benefits (Including Non-Quantifiable Benefits) Of the Proposal, and Other Feasible Options**

#### **Government**

There will be no direct costs to Government from the introduction of the visible smoke test. All costs associated with the introduction of the test will be met from baseline funding. A publicity and public education campaign to accompany the introduction of a visible smoke check, planned to commence in August 2006, has a budget of \$575,000 (+ GST). The costs of the campaign will also be met from existing funding.

There will be a benefit to the government through reduced vehicle emissions and through meeting the other policy objectives.

#### **Vehicle testing industry**

The costs to the vehicle testing industry to implement the test will be minimal. The test is short, straightforward and will not require any additional equipment or training to carry out. Advice from Land Transport New Zealand indicates there would be little or no change in the costs of inspection to the public from the visual test.

Standard examples of smoking vehicles will be provided to inspection facilities ensure consistency of testing. This may require a few minutes of an inspector's time to become familiar with.

#### **Vehicle owners**

The test is expected to add little, if any additional cost or time to the current WoF/CoF test. Estimates are that at most it would add \$1 - \$2 on the assumption of the test taking less than two minutes. Test costs are set by the individual testing place and competition is likely to ensure that charges are kept to a minimum.

The costs to vehicle owners who fail the test are difficult to estimate. Repair costs may range from less than \$50 for replacement of a part such as air-filter through to many thousands of dollars to re-build an engine. It is likely that many owners will choose not to repair their vehicles as many of those vehicles failing the test are likely to be at the end of their economic life. If a vehicle cannot be repaired or easily

replaced, the loss of access to a vehicle can be expected to cause disruption and potential hardship to owners, but these costs cannot easily be quantified. Owners of commercial vehicles may also face costs of lack of income as a result of having vehicles taken out of service for repairs.

Owners of vehicles that tune their vehicles to ensure they are operating to the manufacturers specifications, either as a result of the publicity campaign or the test will benefit from reduced harmful emissions and, in most cases from improved fuel consumption as well.

The Ministry will look to monitor the impact of the test to ensure it does not unduly affect vulnerable sections of the community.

### **Society**

The proposed Rule and associated publicity campaign will help reduce vehicle emissions nationwide. It is anticipated that between 1% and 2% of the vehicles being tested will fail the test in the first year. Testing regimes in other jurisdictions find that after an initial “blip” when testing is introduced, failure rates remain relatively constant as most emissions faults are the result of engine wear and vehicle use over time.

Studies on air emissions, such as the 1996 Australian National In-service Emissions study and the 2004 Auckland Regional Council remote sensing study show that a small percentage of vehicles are responsible for a high proportion of emissions. MOT expects the actual benefits in reducing emissions, especially when tied to the planned publicity campaign, to be higher than a 2% reduction, but cannot quantify these. These reductions will contribute to meeting the NES AQ.

Although it is possible that some vehicle owners will face increased costs, including indirect costs, it is important to note that vehicles that fail the test at inspection are likely to be committing an offence under the “10 second Rule” when driven on the road.

## **Statement of Consultation Undertaken**

### **Stakeholder Consultation**

Workshops on the visible smoke check were held in Wellington in October 2005 for around 75 stakeholders from central and local government, industry and enthusiast and consumer groups. These workshops were used to develop the draft text of the Rule and the testing procedures.

Public consultation on the Rule was undertaken during the formal Rule-making process and at the same time as consultation on the Euro 4 deferment. A draft Rule, known as a ‘yellow’ draft was issued for public consultation in January 2006. One hundred and four submissions were received from a wide range of industry groups, stakeholders, interested parties and the public. More than eighty of these commented specifically on the visible smoke check.

There was general support for the visual test in the responses, although the support of many, especially those in central and regional government, was conditional that

the test was seen as a first step towards introducing a more stringent test in the future.

Some submissions, notably that from Auckland Regional Council and some other regional councils and community groups did not support the introduction. This was because they did not think it was stringent enough and wished to see the introduction of measured tests as had previously been announced. These submitters criticised the test because it does not identify invisible emissions. They argued that some other tool would be required to identify these vehicles. The ARC argued that the test would not achieve sufficient reductions in harmful pollutants to allow them to comply with the NES AQ. The MOT accepts the test will not identify invisible emissions and, on its own, will not be sufficient to ensure that the ARC will meet its obligations under the NES AQ. It is working on other policy options to address these concerns. The MOT will report to Cabinet separately on these.

A few submissions, including that from the Northland Regional Council expressed concerns at the possible economic and social costs for those failing.

There was general agreement the test should be five seconds. Some submitters argued that any smoke should fail a vehicle. A few submitters including the Ministry of Economic Development argued that the test should be 10 seconds, to match the on road test. As the two tests are different this is not seen as relevant and the five second figure used in the UK test was retained.

Owners of “classic” and “vintage” cars were concerned that they not be required to meet standards that their vehicles could not meet due to their age or original design. The wording of the rule has been revised to make explicit that a vehicle should not fail if its original design prevents this. The issues raised by these groups will also be addressed in the inspection requirements. A wide range of motoring groups have been consulted as part of the process of developing these.

A few submissions suggested that very new vehicles should be exempted as they should be clean. This was not accepted as new vehicles may be modified or have major equipment failures that could cause them to show visible smoke.

Most submissions from the transport sector and interested groups focussed on the wording of the proposed test to ensure that it was workable and could be consistently applied in practice. Many expressed concerns over consistency of testing between workshops. This is being addressed through the normal changes to the Vehicle Inspection Requirements Manual provided by the Vehicle Certification Unit (VCU) of Land Transport New Zealand as part of the introduction of any new Rule. The VCU notes that many other parts of the current WoF/CoF inspection process are subjective. Issues of consistency will be dealt with as part of the normal checking processes.

In light of the consultation the wording of the test has been altered to make it clear that vehicle engines must be at normal operating temperatures when being tested. This is because cold engines may exhibit smoke, even if they would operate cleanly when warm. Some submissions noted that a vehicle sitting idling in a queue at a testing station may produce smoke when accelerated suddenly due to a build up of unburned fuel in the exhaust system. Instructions on how to pre-condition the vehicle

before carrying out a test were clarified to make sure this did not cause vehicles to fail.

While most submissions agreed the test would have minimal costs, one submission estimated, in a worst case scenario, the test could add up to \$5 per vehicle. This scenario is considered unlikely.

### **Government Departments/Agencies Consultation**

Twenty three central government departments and agencies and all regional councils were sent copies of the draft Rule as part of the consultation process. The Ministry of Economic Development, Transit New Zealand, Land Transport New Zealand, Local Government New Zealand, Environment Canterbury, Environment Waikato, Environment Bay of Plenty, Northland Regional Council and Auckland Regional Council made submissions on this part of the draft Rule. Their views are reflected above.

Departments have also been consulted in the development of this Cabinet Paper noting the implementation of the Rule and have agreed to its recommendations.

### **BUSINESS COMPLIANCE COST STATEMENT**

Costs to the vehicle inspection industry are expected to be very small, especially in comparison with the previously agreed in-service emissions testing programme. Costs will include a need for a few minutes training viewing sample images to ensure consistency, possible workflow reorganisation and a minor one off costs associated with form design when the test is added to the inspection for the first time.

Compliance costs will include:

- A possible requirement for a one-off short training session (less than 15 minutes) for testers in order to ensure consistency of testing and criteria for passing and failing vehicles.
- Reorganisation of workflow in testing centres, especially in larger dedicated facilities to ensure that the new test is carried out at an appropriate part of the testing cycle.
- Testing agencies will face a one off cost associated with the re-design and printing of the standard WoF/CoF testing sheets to add an appropriate field for the visual inspection.
- Businesses that own vehicles will face a small increase in time for their vehicles to undertake the test. This is likely to only be a few minutes.
- Businesses that own vehicles that fail the test may face disruption through loss of access to a vehicle, but these costs cannot be accurately estimated.

The Ministry has taken the following steps to minimise compliance costs:

- The Ministry intends to conduct a \$575,000 + GST public education campaign at the time of introducing the test to inform motorists of it and to advise them to tune their vehicles in order to pass the tests.
- If needed, training material will be provided as part of normal training carried out by Land Transport New Zealand on inspection practices. The Ministry is also

working with industry bodies such as the Motor Trade Association which represents most testers and repairers to prepare public awareness and training materials for motorists and testers.

- The MOT has been in regular contact with the major testing bodies since the test was first agreed in June 2005 and the testing industry has been actively involved in the development of the draft Rule.
- The approximately three month delay in implementation after signing until 27 October 2006 before the testing will commence should allow workshops sufficient time to finalise their practices without unnecessarily delaying the implementation.
- The VCU has consulted with the major testing agencies and the MTA on the wording of the inspection requirements to ensure that these are workable and practical.