



Driver and Vehicle Agency

Public Consultation

Changing the exhaust emissions test for light vehicles with a modern diesel engine

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1. Introduction

This consultation seeks your views on a proposal to change the annual roadworthiness test (MOT test) by introducing an alternative exhaust emissions test for cars and light goods vehicles fitted with a modern diesel engine.

The proposal is to conduct the more effective exhaust emissions Particle Number (PN) test on cars and light goods vehicles fitted with a modern (Euro 5b or younger) diesel engine, as an alternative to the required smoke opacity (density) test.

The primary driver for the related legislative change is to provide for the introduction of a more effective MOT diesel emissions test for light vehicles, but we also propose to extend this legislative change to include vehicles exceeding 3500kg gross vehicle weight: this will provide for roadside enforcement checks to be carried out on modern light and heavy diesel vehicles to determine the effectiveness of the vehicle's diesel particulate filter (DPF).

2. Background

The Driver and Vehicle Agency (DVA) introduced a diesel emissions test for cars, light and heavy goods vehicles and buses in March 2006, in compliance with the roadworthiness directive. However, for health and safety reasons related to the build-up of fumes in the test halls and in consultation with the Health and Safety Executive for Northern Ireland, the diesel smoke test for cars and light goods vehicles was suspended in June 2006.

We currently conduct a fully compliant diesel emissions test on all heavy goods vehicles, buses and vans over 3,500kgs, and a partial diesel emissions test for cars and light goods vehicles. This includes a visual inspection of the vehicle's emissions and a check of the engine Malfunction Indicator Lamp (MIL), which indicates a defect in the vehicle emission control systems. The reintroduction of a diesel smoke test for cars and light goods vehicles under 3,500kgs, will require a substantial capital investment in the vehicle testing estate to create a safe environment for staff and customers, to enable the test to be conducted.

As a first step, the DVA is investing in a new test centre at Hydebank in Belfast which is scheduled to open later this year. The construction contract for a second new test centre at Mallusk has also been awarded and this new test centre is expected to open in 2025. These new test centres include facilities for full emissions testing, including the use of diesel smoke testers, and will meet all the current and known future requirements. Their design will also be used as a template for any future test centres; the DVA is currently developing proposals for two further new test centres in Campsie

and Enniskillen. Approval to proceed with these proposals will be subject to further consideration and funding availability.

Recently the European Commission recommended a diesel emissions PN test for younger vehicles as an alternative to the current diesel smoke test. This is because younger vehicles, which, due to their design may produce high levels of hazardous particulate matter if not properly maintained, are unlikely to fail the diesel smoke test. Preliminary trials of the new PN test equipment have indicated that the new PN emissions test could potentially be introduced throughout the existing test centre network to test light diesel vehicles, and conduct related roadside enforcement checks on private and commercial vehicles including taxis, light and heavy goods vehicles and buses.

3. Why we need to do this

Since 1992, with the aim of improving air quality, legislation has been periodically revised to reduce the environmental impact of new diesel vehicles by setting more stringent Euro engine emissions standards that must be adhered to at the time of the vehicle's manufacture. This in turn has led to reductions in the associated emission limits checked at the time of the vehicle's annual (MOT) test.

Recent developments in diesel emissions test equipment have highlighted PN testing as a more suitable test method for younger diesel vehicles, which produce excessive levels of particulate matter if they are not properly maintained. In March 2023, the European Commission published Recommendation C (2023) 1796 on PN testing. The Commission highlighted the deficiencies in subjecting younger vehicles to a diesel smoke test and recommended the alternative PN test for Euro 5b and younger vehicles (i.e., vehicles first registered from 1 January 2013). The Commission Recommendation also included the PN test limits that may be applied.

In light of the above, we believe it is sensible to consider a new alternative annual vehicle emissions test for modern light diesel vehicles, with provision for related roadside checks on both light and heavy vehicles – in particular, for the correct fitment and operation of emissions control equipment including diesel particulate filters (DPFs). A DPF is a device fitted within the exhaust pipe of a diesel vehicle which filters hazardous particulate matter from exhaust gases. It does this by trapping solid particles while letting gaseous components escape. These filters enable significant reductions in emissions of particulate matter from diesel vehicles, reducing negative effects on air quality and thereby public health.

Poor maintenance of DPFs can affect vehicle performance and ultimately lead to the need for repairs. This has led to some diesel vehicle owners removing (or bypassing) their DPFs to avoid repair costs, which is both illegal and will lead to excessive air pollution. The Department for Transport (DfT) in Britain conducted a consultation on changes to the MOT test etc. in 2023 ([Changes to the date of the first MOT test and research into other MOT enhancements - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/changes-to-the-date-of-the-first-mot-test-and-research-into-other-mot-enhancements)) and indicated in the section titled 'Emissions from diesel vehicles' that the removal of a DPF can result in

an increase in the number of particles being emitted from the exhaust by approximately 10,000 times.

The inspection of the exhaust system of diesel vehicles carried out during the MOT test includes a visual inspection for the presence of a DPF. The current MOT includes provision to fail a vehicle where this equipment is not present or inoperative – but this is not easy to determine on many vehicles. The required smoke test for diesel vehicles is not sufficiently effective in detecting the removal of a DPF for modern vehicles. However, DfT has also indicated in their consultation, referred to in the paragraph above, that research they have conducted into the use of PN testing equipment for the MOT concluded that it provided an effective means of identifying removed or damaged DPFs, which the current diesel smoke test is unable to detect. Given the significant air quality impacts, we are keen to ensure that vehicle examiners are able to identify missing or defective DPFs during the vehicle's MOT, and at a roadside enforcement check.

Other countries have already introduced this new way of testing the exhaust emissions of diesel vehicles to determine if DPFs are present and working. The use of PN testing at annual vehicle inspections was introduced in Belgium in July 2022, and in the Netherlands, Switzerland and Germany in 2023.

Introducing a PN diesel emissions test for younger cars and light goods vehicles at existing test centres (along with the planned reintroduction of a diesel smoke test for older vehicles at the new test centres) forms an integral part of the DVA's strategy for providing an effective, efficient, and fully compliant diesel emissions test for light vehicles as soon as practically possible.

4. What we are proposing

We are proposing to implement the effective testing of particulate emissions from modern light diesel vehicles (first registered from 1 January 2013 and fitted with a Euro 5b or younger engine) using PN testers, as an alternative to the required smoke opacity test, to allow for those vehicles which have excessive emissions to be identified. We are also proposing to conduct PN diesel emissions tests at the roadside, as required, to check the effective operation of the DPFs fitted to the full range of modern light and heavy vehicles, including taxis, light and heavy goods vehicles and buses.

We have recently conducted trials of PN testing equipment, with a view to determining the practical impact that such a test may have on the DVA's testing environment and service delivery model. These trials indicated that PN emissions testing could potentially be introduced throughout our existing test centre network, to test light diesel vehicles first registered from 1 January 2013.

The PN emissions test is conducted by inserting a probe into the vehicle's exhaust tailpipe and measuring the number of particulates in the exhaust emissions using a

PN tester. The test process is similar to the current petrol emissions test and takes a similar time to complete.

Introducing a PN diesel emissions test for cars and light goods vehicles first registered from 1 January 2013 would capture approximately 60% of the light vehicle fleet that is subject to MOT testing. Over time, the volume of vehicles suitable for PN testing should increase, whilst the volume of older vehicles suitable for diesel smoke testing should decrease.

As the PN test trials indicated that the PN test should take no longer to conduct than the existing petrol emissions test, it is not anticipated that there will be any increase to the test time, and on that basis no related test fee increase is envisaged at this time.

Subject to the outcome of this consultation, we will seek Ministerial approval to progress an amendment to the Motor Vehicles (Construction and Use) Regulations 1999. The amendment will provide for this new emissions test and set out the particle number (PN) test limits, based on the European Commission's recommendations ($\leq 1,000,000$ per $1/\text{cm}^3$).

The Department has carried out a related Equality Impact Screening and Rural Needs Screening and believes that there would be no Equality Impact issues, or differential impact on rural areas or rural communities, associated with the proposed legislative change.

5.Consultation questions

We welcome views in response to this consultation to inform our implementation plans for future PN testing. We believe that introducing PN testing is the right thing to do, but we are aware that there are some practical considerations that we must work through with stakeholders before we commit to a definitive implementation date.

The online questionnaire includes the following specific questions relating to the proposed implementation:

1. Do you agree that implementing more effective testing of particulate emissions from diesel vehicles will benefit the environment and citizens?
2. Following advances in emission testing equipment, do you support modern diesel-powered cars and light goods vehicles being subject to an alternative particle number (PN) test at annual (MOT) inspection?
3. Do you support modern light and heavy diesel-powered vehicles being subject to an alternative particle number (PN) enforcement check at the roadside?

4. Do you agree that the Department, subject to Ministerial approval, should proceed with amending domestic legislation and introduce PN testing for modern diesel vehicles at the earliest opportunity?

6. How to respond

The consultation runs from 24/07/2024 for 8 weeks.

Fill in the questionnaire to give your views – [DVA Public Consultation](#)

When you respond, tell us whether you are doing this for yourself or for an organisation.

If you are responding for an organisation, please tell us:

- who the organisation represents
- how you gathered members' views (if you can).

Contact us at the following email address if you have any queries about this consultation – dva.consultations@infrastructure-ni.gov.uk

7. Confidentiality and data protection

Freedom of Information Act 2000 - Confidentiality of Responses

The Department may publish a summary of responses following the closing date for receipt of comments. Your response, and all other responses to this publication, may be disclosed on request and/or made available on the DfI website (redacted). The Department can only refuse to disclose information in exceptional circumstances. Before you submit your response, please read the paragraphs below on the confidentiality of responses as this will give you guidance on the legal position about any information given by you in response to this publication.

The Freedom of Information Act 2000 and Environmental Information Regulations 2004 give the public a right of access to any information held by a public authority, namely, the Department in this case. This right of access to information includes information provided in response to a consultation.

The Department cannot automatically consider as confidential information supplied to it in response to a consultation. However, it does have the responsibility to decide whether any information provided by you in response to this publication, including

information about your identity, should be made public or treated as confidential. The Lord Chancellor's Code of Practice on the Freedom of Information Act provides that:

- The Department should only accept information from third parties in confidence if it is necessary to obtain that information in connection with the exercise of any of the Department's functions and it would not otherwise be provided.
- The Department should not agree to hold information received from third parties 'in confidence' which is not confidential in nature.
- Acceptance by the Department of confidentiality provisions must be for good reasons, capable of being justified to the Information Commissioner.

The information you provide in your response, excluding personal information, may be published, or disclosed in accordance with the Freedom of Information Act 2000 (FOIA) or the Environmental Information Regulations 2004 (EIR). Any personal information you provide will be handled in accordance with the UK-GDPR and will not be published.

If you want the non-personal information that you provide to be treated as confidential, please tell us why, but be aware that, under the FOIA or EIR, we cannot guarantee confidentiality.

For information regarding your personal data, please refer to the DfI Privacy Notice at www.infrastructure-ni.gov.uk/dfi-privacy. For further details on confidentiality, the FOIA and the EIR please refer to www.ico.org.uk.

8. What happens next

The consultation responses will be considered before final decisions are taken on the introduction of PN testing as an alternative to opacity testing of emissions from modern diesel vehicles.

We will publish the outcome of this consultation on the Department's website.

Subject to the outcome of this consultation, we will seek Ministerial approval to progress an amendment to the Motor Vehicles (Construction and Use) Regulations 1999, which would be subject to negative resolution and consideration by the Committee for Infrastructure.