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## REPORT

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From: General Secretariat of the Council  
To: Permanent Representatives Committee (Part 1) / Council

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Subject: **Preparation of the Council meeting (Transport, Telecommunications and Energy) on 7 June 2016**  
NO<sub>x</sub> emissions by diesel cars  
- Policy debate

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Following the examination of document 9075/16 by the Working Party on Land Transport of 23 May 2016, delegations will find in the Annex a revised version of the discussion paper in view of the policy debate on NO<sub>x</sub> emissions by diesel cars that will take place in TTE Council (Transport) on 7 June 2016.

**Discussion Note****on NO<sub>x</sub> emissions by diesel cars****Transport, Telecommunications and Energy Council****7 June 2016**

With a view to improving air quality, it is essential to reduce emissions of air pollutants by road vehicles. Over the years, we have achieved significant progress. However, the overall reduction of NO<sub>x</sub> emissions has unfortunately remained much lower than foreseen.

In September 2015, it became apparent that Volkswagen AG has made forbidden use of defeat devices in different car models. Subsequently, several Member States launched investigations into the type approval procedures. So far, none of these studies have found evidence that any other car manufacturers have used defeat devices.

Nevertheless, the studies do reveal a significant difference between the level of NO<sub>x</sub> emissions measured under optimal laboratory conditions as part of a formal type approval procedure and the real level of NO<sub>x</sub> emissions measured under normal driving circumstances on the road. The difference can be up to 600% higher under real driving conditions compared to the laboratory tests. Such substantial differences can generally be attributed to the fact that under normal driving conditions the after-treatment facilities or EGR (Exhaust Gas Recirculation) systems in the vehicle are not always fully operational. For example, the treatment facilities may be switched off in case of ambient temperatures below 20° C. Car manufacturers claim this could be necessary to protect the engine, despite the fact that the use of such devices reduce the effectiveness of emission control systems in road vehicles. The fact that treatment facilities can shut down partially or completely under different ambient temperatures clearly suggests that there are widely diverging views on the use of “defeat devices”, even though such devices are formally banned in Europe.

***1. Against the legal prohibition of defeat devices, how could the room for interpretation, in the current EU regulatory framework, regarding the assessment and the use of strategies that reduce the emission control under certain circumstances, be minimised?***

It should be clear that the substantial criteria for the prohibition of defeat devices and the legal exemptions have already been defined in existing legislation. In accordance with Article 5.1 of the “Euro 5/6 Regulation”<sup>1</sup>, car manufacturers should design their vehicles in such a way that under normal driving conditions the vehicle is able to comply with the emission requirements. A so-called Real Driving Emissions (RDE) test procedure is currently being developed. This test procedure, the conformity factors and the dates of implementation are laid down in the implementing acts adopted by the European Commission, in particular Regulation (EC) 692/2008<sup>2</sup>. This is an important step forward to reduce air pollution by diesel cars.

Article 5.2 of the Euro 5/6 Regulation prohibits the use of so-called defeat devices. The prohibition shall not apply where:

- (a) the need for the device is justified in terms of protecting the engine against damage or accident and for safe operation of the vehicle;
- (b) the device does not function beyond the requirements of engine starting; or
- (c) the conditions are substantially included in the test procedures for verifying evaporative emissions and average tailpipe emissions.

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<sup>1</sup> REGULATION (EC) No 715/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information

<sup>2</sup> COMMISSION REGULATION (EC) No 692/2008 of 18 July 2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information

- 2. Do you agree there is an urgent need to clarify the application of Article 5.2 of Regulation (EC) 715/2007 to avoid potential abuse of the use of banned defeat devices and to invite the Commission to take specific measures regarding the prohibition of such devices before the end of this year?***

In accordance with Article 5.3 of the Euro 5/6 Regulation, the Commission is authorised to adopt measures concerning the use of defeat devices. In order to reduce vehicle emissions and to improve air quality, it is important that NOx emission reduction systems are only switched off in exceptional circumstances.

Furthermore, car manufacturers should apply worldwide state of the art technologies at all times. There should be an obligation for car manufacturers to prove why NOx emission reduction technologies need to be switched off in their car models, while under similar circumstances these technologies are still operational with other car manufacturers. This approach should trigger a process towards a broader application of these technologies, leading to the reduction of the emission of air pollutants and fostering innovation.

- 3. Do you have any suggestions, such as the use of ‘state of the art technologies’, which the Commission should take into account when considering appropriate measures, including possible means to reduce existing NOx vehicle emissions?***

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