

Car emissions: taking tests out of the lab and onto the road

[01-03-2016 - 16:12]

Every year 430,000 Europeans die prematurely due to air pollution. One of the main sources is road vehicles emitting nitrogen oxides (NOx), including poisonous nitrogen dioxide. Following the Volkswagen scandal, in which the company admitted cheating emission test in the US, Parliament and the Council are considering to update existing emission rules to ensure tests are closer to real driving conditions.

To help prepare new legislation, Parliament's environment committee held a hearing on 23 February to find out stakeholders' views on proposals to improve procedures for measuring car emissions. Françoise Grossetête, a French member of the EPP group, explained: "We have to restore confidence in the automobile sector in Europe. This sector should become perfectly reliable. And for that reason these tests have to be clear, demanding and independent."

"In the Parliament we want to ensure that we have a central and independent testing system," said German Social Democrat member Matthias Groote. He added that it was also necessary to ensure "that what is said in legislation will actually be respected".

The damage caused by NOx emission

NOx gases can aggravate respiratory and heart diseases. In Europe 40% of NOx is emitted by road transport and 80% of those emissions comes from diesel cars. In 2010, the European Commission's Joint Research Centre tested six petrol and six diesel cars. "The main conclusion was that there is a problem with diesel NOx emissions on the road," said Alois Krasenbrink, of the Joint Research Centre, at the hearing.

The problem with current emissions tests

A new car model can only be placed on the market if it meets EU environmental requirements, known as euro emissions standards. These requirements exist to reduce cars' environmental impact, such as that of NOx gases. Once approved in one country, a car can be sold anywhere in the EU. This process is known as [type approval](#).

Currently, emissions from new models are measured in laboratories, however [studies](#) show that there is a gap between measurements in labs and those under real driving conditions. The latest euro six diesel vehicles can emit several times more NOx in the real world than in specialised test centres.

Reasons for the differences in testing

The current measurement procedure is outdated. It was introduced in 1970 and last updated in 1990. The tests are too flexible, enabling car manufactures to affect the results by measures such as reducing mass and using low-resistance tyres. Other factors such as driving style and air temperature can also make a difference to the results.

Improving test procedures

Article

The EU is updating procedures for measuring emissions to better reflect real world driving conditions. The Commission has already adopted two out of four [measures](#) that will enable new tests - known as Real Driving Emissions (RDE) tests - to start in September 2017. Parliament and the Council are also looking into how to update [car emissions rules](#).

"We recognize that RDE tests are urgently needed despite representing a challenge for industry," said Erik Jonnaert, secretary General of the European Automobile Manufacturers' Association, during the hearing on 23 February. However, he warned that they would increase, the manufacturing cost by €600-1,300 per vehicle. In addition up to 25% of planned diesel models could be at risk of being dropped as a result.

Chris Carroll, from the European Consumer Organisation, supported calls for more realistic tests: "EU legislation in this area makes it very clear that cars on the road should conform to type approval results. They should perform in normal use as they would do in a laboratory test and that clearly is not the case right now."

Parliament has also set up an [inquiry committee](#) to research car makers' breaches of EU rules on car emission tests in the wake of the Volkswagen scandal. The [committee](#), which will be up and running for a year, will meet for the first time on Wednesday 2 March to elects its chair and vice-chairs. [Follow the meeting live online](#) on Wednesday 2 March from 8.30 to 10.00 CET.

Further information

- Briefing: Measuring on-road air pollution from cars (14 January 2016): http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_ATA%282016%29573905
- Briefing: Vehicle emission tests(1 October 2015): http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_ATA%282015%29568355
- European Environment Agency: emissions of air pollutants from transport : <http://www.eea.europa.eu/data-and-maps/indicators/transport-emissions-of-air-pollutants-8/transport-emissions-of-air-pollutants-3/#emissions-of-air-pollutants-from-transport>