

ACEA COMMENTS

TSAP report #4 version 1.0 dated June 2012

“The Potential for Further Controls of Emissions from Mobile Sources in Europe”

ACEA welcomes the opportunity to comment on version 1 of the report ‘*The Potential for Further Controls of Emissions from Mobile Sources in Europe*’ which was presented at the 3rd meeting of the DG ENV stakeholder expert group on the review of EU air policy on 21 June 2012.

ACEA has several comments on the details of some aspects of the content of this report. These are listed below and ACEA would certainly welcome the opportunity to further discuss these and any related issues as the work continues.

Executive summary:

In the **third paragraph** there is the statement “*From 2005 to 2010, implementation of EU legislation has reduced NOx from mobile sources by 18%, PM by 21% and VOC by 34%. For NOx, the decline is lower than the corresponding reductions from stationary sources (-26%), so that the relative importance of the transport sector has increased despite the EURO legislation*”. This does not reflect the huge reduction in NOx emissions from road mobile sources due to all Euro stages going back to the 1990’s to the present day. From figures in other of the TSAP reports, there appears to have been one stage of controls on stationary sources fairly recently in 2005 which distorts the comparison.

In the **fourth paragraph** there is the statement that says that successful Euro 6 are “*assuming 50% higher real-life emissions than the type approval value to allow for degradation over time and uncertainties in the driving cycles...*”. Of course there is a need to recognise differences between measured emissions on test cycles for vehicle-to-vehicle comparison under standard conditions and emissions under real-life driving conditions. ACEA recognises this and is why we are fully supporting the work of DG ENTR and the JRC on Real Driving Emissions (RDE). However, ACEA must point out that the emissions type approval limits already allow for degradation over a useful life of 160,000 km - the limit values have to be met after applying durability requirements. The final paragraph on page 15 appears to recognise this – it states “*the difference in emissions results only from different driving conditions*”.

In the **ninth paragraph**, it says “*For road vehicles, the introduction of hypothetical EURO 7/VII standards after 2020, with real-world emission factors around 20% below the EURO 6/VI limit values could reduce NOx emissions from road vehicles by 13% below the baseline projection for 2030*”. As it says, this is a hypothetical statement only that has not been analysed for cost-effectiveness.

Section 2: Methodology:

The provision of realistic Euro 6/VI emission factors is an important element of the modelling. Presently there are few Euro 6 cars by certain manufacturers (mainly larger cars and SUVs) in the market but as newer models from a wider range of manufacturers and vehicles sizes appear, then the Euro 6 emissions factors need confirming. The same

is true for Euro VI HDV where only now are we seeing Euro VI HDV type-approvals. How soon Euro VI HDV will start to appear in the market depends significantly on the present poor economic situation.

Section 3.4: Emission factors:

At the bottom of page 15 - in relation to the above comments to the fourth paragraph of the executive summary.

Section 3.4.1: Emission factors for light-duty vehicles:

In the **first paragraph**, in deciding to adopt an average of 870mg/km for NO_x, it would be useful to know what studies have contributed to this assumption.

In the **second paragraph** there is again the statement that degradation contributes to the emission factor. The limit of 80mg/km includes degradation over the legal durability period of 160,000km. The assumed Euro 6 NO_x emission factor is due to the different conditions and driving styles/conditions on the roads compared to the standardised legal test in the laboratory for vehicle-to-vehicle comparisons.

In the **fourth paragraph**, there will be Euro 6 gasoline vehicles entering into service before 2017 that will meet the assumed 1mg/km PM emission factor. In the last sentence, 1mg/km is not a limit value - the actual Euro 6 PM limit value is 4.5mg/km.

In the **fifth paragraph**, in the hypothetical Euro 7 stage, a PM limit value of 50 mg/km has been assumed with Euro 7 technology assumed to be introduced from 2020 onwards in the MTR and MCE scenarios. Note that the current Euro 5/6 limit for PM is actually 4.5 mg/km and there is also a particle number limit. Therefore, a figure more than 10 times higher does not make any sense for a future stage. Again, these Euro 7 figures are merely hypothetical and have no justification by cost-effective analysis.

Section 3.4.2: Emission factors for heavy-duty vehicles:

No details are provided of the hypothetical Euro VII control. It is therefore difficult to judge how this scenario relates to the assumed further NO_x reduction of 30% over Euro VI. As emissions limits are framed in terms of mg/kWh, it is also difficult to determine how the assumed PM emission factor of 3 mg/km compares to the present PM limit of 10 mg/kWh. Again, these Euro VII figures are merely hypothetical and have no justification by cost-effective analysis.

Section 4.2.1: Baseline trends (NO_x):

In the **second paragraph**, the first line states "...NO_x controls for diesel cars and light trucks have proven ineffective under real-world driving conditions..." but then later in that paragraph it states that NO_x emissions are projected to decrease by 33% in 2020...". Firstly, this is a broad statement that effectively says that all diesel cars and LCV are always emitting NO_x at levels far above the limits and the levels assumed by emissions factors. As we know, there are driving conditions that will have low NO_x emissions and driving conditions that will have higher NO_x emissions and there is a balance. However, it is not proven that all diesel cars and all LCVs are producing extremely high levels of NO_x.

Maximum Technically Feasible Reductions (NO_x):

No description how this MTR scenario is defined or implications for technology cost.

Section 4.3: PM emissions:

Baseline:

The first sentence says “forthcoming emission controls and notably the application of (diesel) particle filters...”. Of course, further emission controls are not enforcing filters. Existing emission limits have already enforced filters on Euro 5 diesel passenger cars and many Euro V heavy-duty vehicles, especially buses and coaches used primarily in urban areas.

Maximum Technically Feasible Reductions (PM):

No description how this MTFR scenario is defined or implications for technology cost.

Section 4.4: Emissions of black carbon (BC):

Section 4.4.1: Road transport:

Baseline:

It would be interesting to know what measures could be effective in reducing non-exhaust emissions of BC by 2020?

Ditto in the baseline section on emissions of organic carbon (OC).

Section 5.4: Effectiveness and timing of EURO 6 emission standards:

This section needs further review especially since the mixture of dates and kt and % figures is confusing.

The Commission is fully aware that ACEA is actively participating and contributing to the present discussions on real driving emissions.

In table 5.4, the assumption ‘emission factor as low as legislation’ is questionable and needs further discussion between industry and the Commission to fully understand the link between the politically agreed emission limits established for standard comparison tests and real-life emissions under all sorts of driving and with all types of driver.

Section 6: Conclusions:

This section needs further review especially since the mixture of dates and kt and % figures is confusing.

Same comments as above about the hypothetical Euro 7/VII scenario.

Final comments:

These comments are a first rough assessment based of the current status of the work. ACEA will be pleased to discuss any of the issues raised with the authors and the European Commission and we certainly welcome further discussions with a wider audience in the Commission services regarding the establishment of realistic Euro 6/VI emissions factors, real driving emissions, the interaction between the demands of the EU CO₂ legislation and the Euro emission limits and establishing a sensible roadmap for industry to deal with all of the current legislative workload.