

Committee of Inquiry into Emission Measurements in the Automotive Sector

EMIS hearing of 12 September 2016

Questions to Karmenu Vella – Commissioner for the Environment, Maritime Affairs and Fisheries

No.	Question
1	Did you have, at any time before the emissions-cheating scandal, any suspicions that some manufacturers were deploying strategies to beat the emissions- testing system? Do you consider that the Commission, during your term of office, complied with the obligations set out in Article 14(3) of Regulation 715/2007, which provides that the Commission is to keep under review the procedures, tests and requirements as well as the test cycles used to measure emissions and that, if the review finds that these are no longer adequate or no longer reflect real world emissions, the Commission is to adapt them so as to adequately reflect the emissions generated by real driving on the road? Do you consider that the assessments carried out by the Commission and the introduction of tests reflecting real-world driving conditions were carried out in a timely manner?
	We had no suspicions of specific manufacturers deploying illegal emissions strategies, nor had evidence of any wrongdoing by any manufacturer come to my attention until the VW revelations in September 2015. I started as a Commissioner for Environment in November 2014 and from the beginning, in the context of the preparation of my parliamentary hearing, I have been made aware of the issue of discrepancies between the test cycle and real-world emissions, at that time already widely known also in the public domain, and of intense ongoing discussions between the Commission, stakeholders and Member States in the RDE-LDV working group to fulfil the mandate given to the Commission by the legislator. The work was in full swing at the time and continued when I became Commissioner, with all the issues about the test procedure and the discrepancies being addressed, which then lead to the adoption of the so-called 1 st and 2 nd RDE acts. I would therefore say Commission acted as required.

According to Euro 6, diesel passenger cars are not allowed to exceed the limit of 80 mg NO_x per km. Why has the initial emission limit value of 128 milligram NO_x in the Commission's RDE legislative proposal been changed? How would you explain European citizens the shift in your latest RDE proposal to a drastic increase of emission limits - namely a limit of up to 168 mg of NO_x as of 2017 and as of 2021 a limit of 120 mg? Can we interpret this as a concession that 715/2007 was a badly made piece of legislation that was unrealistic from its very beginning?

Regulation 715/2007 may have had its shortcomings, as it maintained the same test procedure, but not in the ambition levels of 80 mg NOx per km. As previously stated by many, including the EEA, the air quality situation in the EU would have improved much more without the discrepancy between the test cycle and the real-world emissions. The Commission knew that the measurement procedure was not adequate, and precisely because of that it undertook the task of introducing a much better and ambitious procedure –the Real Driving emissions test-, which is being completed during our mandate.

The final position taken by the Technical Committee on Motor Vehicles was less ambitious than the Commission proposal. As Commissioner for Environment, I would of course have preferred that Member States supported the original Commission proposal, as this would obviously have been more positive for air quality, but this compromise still drastically reduces the existing divergence. If the vote had failed, the finalisation of the second RDE act would have cost us valuable time and would have risked pushing the introduction of the new mandatory RDE measurements to beyond 2017. However, it is of utmost importance that RDE provisions start to be applied in full as soon as possible, given the air quality benefits resulting from earlier adoption. Furthermore, the Commission insisted on and obtained a review mechanism which will lead to real-drive emissions being closer to the standard of 80 mg NOx/km stated in Regulation 715/2007, stemming from improvements in the measurement equipment, and thus lower measurement uncertainty. The Commission reassured Parliament during the scrutiny of the 2nd package that it intends to activate the revision clause on an annual basis as of 2017.

3	Do you see any shortcomings of the Member States with regard to market surveillance and the type approval procedure? If so please specify those shortcomings? Did you call on any other EU institution or other Member States, as a matter of urgency and of high importance, to address the issue of NO_x emissions that were multiples of the legal limits?
	I understand that while some Member States have, in the past, raised the issue of high real-drive emissions from cars as a problem in meeting air-quality standards, none has suggested that such emission levels may be illegal or done anything to seek clarifications from car manufacturers as to the reasons behind this discrepancy, including by looking whether defeat devices might have been used. Yet, the responsibility for enforcement of rules and market surveillance under the European Type Approval Framework rests with the Member States.
	While the type-approval legislation does not fall under my direct responsibility, I think it is clear that market surveillance does need to be improved. And that is why the Commission, with my strong support, has put a very robust proposal to revise the European Type Approval Framework before the Parliament and the Council. We count on the co-legislators to ensure that a strong system, including a mandate for the Commission to carry out market surveillance activities, is agreed without delay.
	As explained in my reply to question 1, when I became a Commissioner in November 2014, -the limitations of the New European Driving Cycle (NEDC) applicable to date and the discrepancies between test cycle and real world emissions were public knowledge already for quite some time and work was ongoing with Member States in the RDE-LDV working group to address these issues.
	As under the current type-approval rules, passing the NEDC test is the sole way to demonstrate compliance with the Euro standards, the Commission focused its efforts in addressing the discrepancy between NOx emissions measured in laboratory and real driving conditions through the development of the RDE procedure.

4	Already at this early stage in the work of EMIS committee we had several speakers confirming that the European car manufacturers can deliver clean cars respecting EU legal NO _x limits in real world driving without any necessary adjustments (conformity factors) as introduced in the new RDE test. From the perspective of the Environment Commissioner, do you think the agreed conformity factors of 2.1 (from 2017 to 2020) and 1.5 (from 2020) are justifiable in the light of technical expertise widely available and presented by several organisations to this committee? Given that Euro 6 standards have been agreed upon in 2007 and the car manufacturers were aware that they would need to meet these standards as from 2014, do you think it is justifiable to grant additional concessions to the manufacturers who are at the same time able to meet more stringent NO _x limits on US market?
	As already mentioned in my reply to question 2, as Commissioner for Environment, I would of course have preferred that Member States supported the original Commission proposal, as this would obviously have been better for air quality, but we must also recognise that an absent RDE test procedure or a severely delayed one, would be even more detrimental to our citizens' health. As already stated before, therefore the overriding priority was the speed of introduction of RDE. We should also not forget that Euro 6 cars on the streets now emit more than 400 mg NOx per km, which corresponds to a CF of 5, so the agreed RDE package is already an important improvement. We want RDE-approved (or even better performing) cars to be on the streets as soon as possible.
	I am very much aware that cars, including some built by European manufacturers, meet more stringent NOx limit values for the US market and I am disappointed that such cars are not sold in Europe. This is why I want to promote them on the European market, and I have asked my services to explore together with DG GROW ways to do this.
	The severe NO2 exceedances that our citizens face need to be addressed and I want to recall that Member States have more policy instruments at their disposal than emission standards to improve air quality, such as fuel and car taxation, demand management, traffic flow management, etc
5	Do you believe that the EU legislation on vehicle emissions is sufficiently clear regarding the ban of the use of defeat devices? If yes, why are some manufacturers claiming that reducing the effectiveness of emission control technologies under certain conditions, when clearly not justified and not applied in a consistent manner across the single market, is allowed under EU law, and not allowed under U.S. law, which also bans the use of defeat devices?
	This question concerns the type approval legislation, which is under the direct responsibility of my colleague Elzbieta Bieńkowska and I therefore leave it to her to reply to this question in more detail.
	I understand however that the legal provisions have been unchanged for 18 years and according to the information I was given in preparation of this meeting, these provisions were not questioned during the legislative deliberations when the legislation was last revised, including in the European Parliament.

6	According the euobserver.com, the German transport ministry found that Fiat cars' emissions on the road were much higher than in the official test. Following an inquiry by the German Transport Minister, the Italian carmaker argued that it only needs to explain itself to the Italian authorities.	
	https://euobserver.com/dieselgate/134058	
	In this regard, how does the Commission understand the Article 36 of the Treaty on the Functioning of the EU? In case Germany can prove that Fiat cars	
	imported to Germany significantly exceed valid emission standards, could potential restrictions on import imposed by Germany be justified by "the protection	
	of health and life of humans, animals or plants"?	
	Clearly this question should be better addressed to my colleague Elzbieta Bieńkowska as she oversees the legislation for the internal market.	
	What I can say is that under the current EU Type Approval Framework, it is only the type-approval authority of the Member State which granted the approval	
	that is entitled to take actions in case of non-conformity of the vehicle with the approved type.	
	In January 2016, the Commission tabled a proposal to revise the type approval regulatory framework, introducing provisions for EU wide recalls for non-	
	compliant products with the aim to ensure a quick and coherent approach throughout the EU. The proposed reform will also ensure the independence and	
	quality of vehicle testing, introduce an effective market surveillance system to control the conformity of cars already in circulation and reinforce the type	
	approval system with greater European oversight.	

- 7 The Director-General of DG Environment wrote to the Director-General of DG Enterprise on 19 November 2014 stating "We continue to believe that DG Enterprise should investigate the regularity and, if confirmed, demand corrective action of certain current practices [in which] certain manufacturers deploy emission abatement techniques that are switched off at low temperatures or when the vehicle needs additional power."
 - Were you aware of this exchange of letters? If not, do you know why you were not informed?

- Were you aware of the exchange of letters in February 2013 between the Danish minister, Commissioner Tajani and Commissioner Potočnik regarding vehicle emissions?

- Have you followed-up on Mr Falkenberg's letter of 19 November 2014 on a political level? Have you raised the issue of an investigation or possible corrective actions with Commissioner Bieńkowska or Vice-President Katainen or other Commissioners? If not, why not? If yes, what was the effect?

I have from the start of my mandate been aware of the issue of emissions discrepancies which these letters and notes refer to, based on discussions with the Directors General I had under my supervision and I encouraged DG Environment to continue the ongoing work within the Commission towards a speedy adoption of a new test cycle which reduces these discrepancies to a minimum. However, I am sure that you understand that I cannot be in copy of all exchanges between Directors General and their services, which would be impracticable. I was also not aware of the exchange of letters between the Danish minister, Commissioner Tajani and Commissioner Potočnik regarding vehicle emissions.

As stated before, the Commission considered that the best way to address the observed discrepancy between NOx emissions measured in the laboratory and under real driving conditions would be to develop a new test to measure emissions in real driving conditions that also significantly reduces the risk defeat devices. The technology chosen (PEMS) was also seen as the best possible to reduce this risk. The Commission made this change its main priority and received full support from both Council and the European Parliament. While progress has been achieved with the 1st and 2nd RDE packages, the process is not yet finished, and I will follow very closely the work to conclude the 3rd and 4th RDE acts as soon as possible, as they will bring considerable further improvements.

8 Has the current DG Environment Director-General, Mr Calleja Crespo, followed up on the earlier notes on vehicle emissions by the former Director-General? Have you instructed the new Director-General to follow developments closely and follow-up? Have you given other relevant instructions to him with regard to vehicle emissions?

The issue of real-drive emissions continues to being closely followed up by my services, led by the current Director-General. To this end, DG ENV, under my guidance, has contributed closely in the inter-services discussions preceding the presentation of the 1st and 2nd RDE acts, and supported a very ambitious Commission proposal for the latter in order to close the gap between the existing test-cycle and real-world emissions as soon as possible. Following the vote on a less ambitious 2nd RDE proposal by the Member States in the Technical Committee on Motor Vehicles (TCMV), the Director-General of DG ENV wrote to the Member States to remind them of their obligations to meet air quality standards, and that high real-world emissions cannot be used as an excuse to avoid compliance with these. My services continue to be deeply involved in finalising the 3rd and 4th RDE acts. I have also asked the Director-General of DG ENV to explore, in collaboration with DG GROW, possible ways of identifying and possibly promoting cars that perform better than the not-to-exceed limits provided by RDE in order to make more rapid progress in bringing down vehicle emissions.

A note from the Commission's DG Environment in 2010 said that work on "defeat strategies" was "an important concern" for them. In 2013, an air pollution study by the same DG warned of: "Increasing evidence of illegal practices [by car manufacturers] that defeat the anti-pollution systems to improve driving performance or save on the replacement of costly components". In November 2014, a year before the VW scandal, Daniel Calleja Crespo, Director-General of the Commission's DG Industry and Enterprise, received a request from DG ENVI's then-director, Karl Falkenberg, for a response to his calls for an EU probe into defeat devices. "We continue to believe that DG Enterprise should investigate the regularity – and, if confirmed, demand corrective action – of certain current practices [in which] certain manufacturers deploy emission abatement techniques that are switched off at low temperatures or when the vehicle needs additional power," Falkenberg said. "This practice in our opinion goes beyond what is allowed by the Euro 5/6 [emissions test] legislation," he wrote in the letter. "A request to look into this matter more deeply has remained unanswered so far."-Commissioner, Mr Crespo is now under your authority ever since he replaced Mr Falkenberg as DG ENVI Director-General. Would you say he is up to the job to lead DG ENVI services to track any failures by Member States and the car industry in the field of car emissions' control?

First, I would like to recall the answer to question 8 of my predecessor, Mr. Potočnik. That answer explained the footnote in the Commission's 2013 Impact Assessment accompanying the Clean Air Programme for Europe, and it attributed the "illegal practices" you refer to in your question to end-users, not to car manufacturers, as these would occur after sale, and be carried out without knowledge of the manufacturers.

I have full confidence in the current DG of DG ENV Mr Calleja Crespo. Since he works with me, I have had full confirmation of his commitment to environment policies, including their better implementation, and without doubt he has played a decisive role in the recent final agreement in the trilogues on the National Emission Ceiling Directive. Since the start of his tenure (only a couple of weeks before the VW scandal erupted) he has been very much involved in dealing with the aftermath of the scandal. I agreed with his proposal to address an administrative letter to all Member States' Directors-General for Environment at the beginning of 2016, urging them to proactively engage in tackling the exceedances of NO2 limit values and adequately account for diesel vehicles' impact on air quality, including through additional measures to the Euro standards. Mr Calleja Crespo and Mr Falkenberg are available to come before the Committee to give any additional explanations and clarifications the Committee deems necessary concerning their previous functions. 10 DG Environment has been aware since several years of the problem of discrepancies in real world driving of vehicles type approved in Europe with the regulatory requirements. It raised the issue with DG Enterprise on several occasions, however to no avail until the investigations and revelations of the US EPA in September 2015. What steps is DG Environment actively undertaking now within the Commission to ensure enforcement of air quality standards and in particular of emission regulatory requirements from diesel vehicles? What actions do you expect the Commission should undertake to ensure that diesel cars that are on the road today are brought into compliance with the regulatory emission requirements for vehicles in normal use?

DG ENV is interested in the effects on the ground, therefore it requires results on reducing air pollution from Member States in line with their obligations under EU-law. Even though emissions standards for vehicles play an important role, many other regulatory instruments are available to them, such as access regulation and/or taxation of vehicles according to emission performance, shifting towards active mobility or public transport, etc.

When it comes to enforcement of regulatory requirements on vehicles, I must stress again that it is the Member States that hold the actual authority on potential non-compliance or use of illegal defeat devices. Together with DG GROW, DG ENV has called upon Member States to provide the necessary evidence The Commission has communicated to the Parliament the information it has received from Member States which have completed their investigations, explaining their findings. However, we still have not been given full access to the investigation data and are thus lacking detailed information from the Member States, which makes it difficult for us to assess the need for further remedial actions from Member States or car manufacturers to ensure the compliance of diesel cars with applicable legal provisions.

As highlighted before, the introduction of the RDE procedure should bring emissions from cars much closer to the legal limits, as normal use conditions will be better reflected in the procedure, and the conformity factors will be revised downwards as measurement equipment improves. In parallel, the proposal for a robust and reinforced type-approval and market surveillance system will help strengthen the system and make it more resilient to potential fraud. According to an estimate published by the European Environment Agency in its report "Explaining vehicle emissions – why do laboratory and road measurements differ?" if, starting in 2015, Euro 6 cars tested on RDE will still emit NO_x only 30% less than Euro 5 limits (i.e. 126 mg/km) there will be negligible improvement in the NO₂ pollution across the EU by 2030. Applying the agreed conformity factor for RDE, diesel cars will continue to be allowed to emit NO_x up to 164 mg/km until 2020 and up to 120 mg/km afterward. It's then crystal clear that air quality, at least in terms of NO₂ concentration, will never improve. How do you think the Commission will take this fact into account when evaluating air quality standards of Member States? How will the Commission motivate infraction procedures for NO₂ pollution in Member States? Which actions, in your opinion, should be taken by local administrations to reduce NO₂ air concentrations especially in urban areas considering that restricting the circulation to new diesel cars models won't work?

There seems to be some misunderstanding of the EEA's handbook. The aforementioned report of the EEA¹, mentions simulations done by IIASA in 2012. IIASA's work was not done as a standalone scientific investigation; it was done on a contract by DG ENV to support the Commission's Impact Assessment accompanying the Clean Air Programme for Europe of 2013. Of the various scenarios analysed, the one referenced in the question assumes that Euro 6 cars are emitting in real driving conditions only 30% less than the <u>real emissions</u> for Euro 5 cars (which were estimated at around 700 mg NOx/km) – <u>not 30% less</u> than the <u>real emissions</u>, one assumes a proportional reduction and the other assumes that 80 mg NOx/km are achieved in real driving conditions. The RDE provisions agreed in 2015 are expected to deliver values between these last two scenarios (i.e. between 350 mg NOx/km) and even closer to the best case scenario in IIASA modelling after 2021 and the introduction of the final conformity factors. Therefore major improvements in air quality will occur in the timeframe until 2030. At the same time, the analysis also shows the perils of the "business as usual" scenario (i.e. no or very little change in real drive emissions) which would have materialised in case the RDE packages would not have been adopted or would have been significantly delayed.

As mentioned in my answer to question 10, there are many tools available to Member States to reduce and eliminate exceedances of air pollutants. It depends on the local situation which ones are best suited; some cities, for example, are considering or have implemented complete bans of some diesel cars. Under the Air Quality legislation, we do not prescribe measures, we only assess their air quality impact and how they contribute towards ensuring cleaner air for citizens.

¹ Explaining road transport emissions – a non-technical guide, EEA 2016, p .29

12 What was the relationship between DG ENV and DG GROW during the work on the RDE test procedure? What role did DG ENV have in the Commission's original proposal for the temporary and final conformity factors at 1.6 and 1.2? Did DG ENV support the final conformity factors of 2.1 (from 2017 to 2020) and 1.5 (from 2020), despite the negative impact this would have on air quality in the EU and despite the fact that this would undermine the Impact Assessment for the 2013 Clean Air Package - see page 163: "For NOx emission from transport, all scenarios presented here assume from 2017 onwards real-life NO_x emissions to be 1.5 times higher than the NTE Euro-6 test cycle limit value"? *I understand DG Environment had, and continues to have, a good working relationship with DG GROW at all levels. It is normal that both DGs have technical discussions and try to approximate their positions based on their respective mission statements, in order to agree on the path to follow.* With my Cabinet's agreement, DG Environment fully endorsed the original proposals put forward to the TCMV by DG GROW for Conformity Factors (CFs) and timing. As a consequence, L personally, and DG Environment were disappointed with the lower level of ambition supported by the Member States, but

timing. As a consequence, I personally and DG Environment were disappointed with the lower level of ambition supported by the Member States, but ultimately in EU rule-making compromises are necessary to achieve the required majorities. As explained before, the annual review clause that will apply as of 2017 will also allow for the lowering of the CFs following improvements in measurement equipment leading, in the longer run, to even better results on the ground than our modelling. Finally, Member States have other policy instruments at their disposal to nevertheless meet their legal obligations in respect of air quality.