

MINUTES OF THE 9TH RETROFIT EMISSIONS CONTROL DEVICES (REC) INFORMAL GROUP MEETING

18 January 2012, 09:30 – 12:30; Palais des Nations, Geneva

1. Welcome and introduction (doc. REC-09-05 participants list)

The chairman welcomed participants and asked for a short tour de table of introductions.

2. Approval of the meeting agenda (doc. REC-09-01)

The agenda was approved without change.

3. Approval of the draft minutes of the 8th REC meeting (doc. REC-08-08)

The minutes of the 8th REC meeting held in Kijkduin, NL on 22 November 2011 were approved without change. The chairman thanked the REC secretariat for the good work.

4. REC chairman's report

a. REC editorial meeting held on 30 November 2011

The chairman reported that the previous REC meeting in Kijkduin had made good progress and the agreements reached at that meeting had been incorporated into the draft document in a small meeting held on 30 November at AECC in Brussels. This draft had been circulated as REC-09-02.

b. Questions and comments from REC meeting participants

i. EMA comments on NO_x control and PM Number (doc. REC-09-03)

Bortfeld presented EMA's comments on NO_x control and PM Number.

Regarding NO_x control measures, it is expected that reagents may be required. EMA considers that without effective control measures frequent tampering can be expected. The draft Regulation has limited requirements, covering only reagent quality, dosing and freezing protection. UN Reg. 96 includes controls on NO_x operation, and US Regulations, Euro VI and the amendments to 97/68/EC include comprehensive NO_x controls and inducement systems. EMA therefore believes that provisions for the detection of NO_x control malfunctions should be added, together with requirements for an inducement system similar to Reg. 96. In the previous meeting, Sweden, with EMA, had been tasked to make a proposal on this but had not yet been able to do so.

Regarding PM Number requirements, there is a requirement for Type I, II and IV REC to provide at least a 97% reduction in PM Number. Nationally, though, only Switzerland has PM Number requirements. It is not, in EMA's view, possible to transfer those requirements to the REC Regulation as Switzerland uses a steady-state test whereas REC uses a transient cycle said. Wall flow filters would in any case meet this requirement. EMA considered that either the provisions should be deleted or the Swiss LRV should be permitted as an alternative compliance method.

The chairman asked whether EMA and Euromot would be able to come forward with a proposal on NO_x control. Stein said that OICA and Euromot (with EMA) could develop such a proposal in consultation with Sweden, but this could not be done rapidly as there would need to be some differences from existing legislation. This is because a) it will need to cover mechanically-controlled engines and b) retrofitters are not allowed to tamper with the existing control systems. He therefore asked that the mandate for the group be extended. The chairman reported that extension of the REC mandate would be on the GRPE agenda tomorrow.

Regarding PM Number, Baarbé reported that the Netherlands and Switzerland are strongly in favour of a PM Number requirement. In their view only this would ensure efficient performance for control of solid particles. Research by AECC has, he said, shown that DPF technology could achieve these requirements on transient cycles. He nevertheless agreed that there should not need to be new tests where existing approvals (VERT, Swiss LRV etc) have shown the performance of such systems.

Williams said that the REC requirements should not go beyond what is required for a new engine. In particular it should not require that new equipment would then have to be retrofitted to meet

additional requirements, even in Environmental Zones. The chairman considered that the intention of the Regulation is to allow retrofitting from one emissions level to a higher one. In the EU this would mean that engines meeting the latest version of the relevant regulation for new engines would have to be acceptable without retrofit. Berger said that Switzerland would not wish to come back from their current requirements and strongly supports the inclusion of PM Number.

In response to concerns on allowing the Swiss LRV as an alternative compliance, the chairman said that this would only be to allow the use of results from existing tests, as for the current proposal on secondary emissions. It was commented that including PM Number requirements would be the best way to avoid local authorities setting additional requirements as well as ensuring efficient DPFs; good wall flow DPFs would meet the requirements on any cycle, so allowing the use of existing data would be a route forward. Stein said that OICA strongly opposes the inclusion of PM Number requirements for engines that do not already have them (i.e. Euro I to V). Euromot supports the EMA proposal, but could accept PM Number in the secondary emissions requirements "without being really mandatory". He commented that the last PMP meeting had shown that the measurement systems are not very reliable. The UK agreed with Stein that there should be no retrospective limits introduced, but pointed out that the PM Number proposal is not set as a limit but is a percentage efficiency and so should be acceptable. Schulte said that he was in favour of including PM Number in the secondary emission requirements. He considered that this would be a mandatory requirement. Eberhardt supported PM Number to be a mandatory requirement. Nitsche said that the Regulation would not be purely for European use and supported the approach of considering PM Number as a secondary emissions requirement. In response to further comments the chairman noted that there is no intention to include PM Number measurement for the lower efficiency level, but including a PM Number requirement in the higher efficiency level would ensure that such devices maintain the high performance levels needed for public health.

The chairman proposed that the editorial group should draft a PM Number proposal in an annex, treated similarly to that on secondary emissions. This was accepted.

ii. Outcome of discussions on the 'transitional provisions' approach

UN procedures do not allow the inclusion of two different performance levels in one UN Regulation. The chairman reported that in the last meeting a possible approach using 'transitional provisions' was agreed. However, since that meeting, discussions with the GRPE chair and secretariat indicated that this approach was not acceptable under the latest UNECE guidelines.

Eberhardt reported that Germany had considered possible solutions to this, in consultation with the GRPE chair. They had concluded that the best possible option would be to start a Regulation with Level 1 requirements (the lower efficiency level) and then to introduce Level 2 with an amendment immediately afterwards. This would ease the general structure of the document, including the PM Number issue. It would also, in Germany's view, resolve the NO₂ issue (whether requirements should be included for two levels of NO₂ performance for PM reduction devices, one of which would be zero increase in engine-out NO₂). AECC commented that in principle the approach appears to be a good one, but this should not result in the second step, higher performance level only permitting those devices with a zero increase in NO₂. Eberhardt said that the NO₂ requirements could be discussed in detail once the two-step principle is accepted, but it will still be important for Germany to provide that particle filters also have a good NO₂ emission performance.

The GRPE Secretariat, having joined the meeting, said that there would have to be transitional provisions in the amendment that would allow (but not require) contracting parties to refuse approvals to the previous version. Countries accepting the first level would also have to accept the higher level. Regarding timing, the EU procedure would normally require a co-decision mandate, hence taking about 2 years. However, the chairman felt that this could be reduced as there is already a provision in the Euro VI Regulation for a retrofit regulation through comitology. Regarding ECE procedures, the GRPE secretariat said that the only requirement would be that the amendment could not be submitted to the same meeting of WP.29 as the base Regulation.

A question was asked as to whether the second step would then allow combinations of Level 1 for one pollutant and level 2 for another. It was felt that a combined system meeting level 1 for (say) NO_x and level 2 for PM would be acceptable provided that the contracting party continued to

accept level 1. This would not require 2 separate approvals providing the manufacturer gained approval once the higher level amendment had been adopted.

The chairman proposed that the editorial group should now develop the draft Regulation based on this proposal and this was accepted.

5. Consideration of the draft REC Regulation (doc. REC-09-02)

The chairman proposed that as the main issues had been agreed in Kijkduin and the resulting draft had been circulated to participants, in view of the proposed changes to the structure the document should not be reviewed in detail at this meeting. This was agreed.

Billi said that the document includes comments that better wording is required on safety issues etc. Euromot will undertake this for the next meeting.

6. REC Chairman's report to 63rd GRPE meeting

The chairman presented his draft progress report for GRPE. He will report that the draft Regulation covers the majority of the issues to be dealt with. Some significant issues still have to be solved in detail, but the direction of the solution is within reach. After today's decisions a further draft Regulation will be prepared.

It is agreed that retrofit systems shall not interfere with the operation of the original engine and its OEM aftertreatment system. Due to the new solution for the general approach, the provisions on NO₂ will have to be re-discussed. Most participants agree on a PN requirement for high efficiency DPFs and this will be including with provisions on secondary emissions, for which an approach has been agreed. The approach for test cycles has been agreed.

The approach agreed at today's meeting is described in the presentation. This involves starting with only the lower stringency levels and then introducing an 01 series of amendments as soon as possible. Contracting parties may choose to subscribe to only the 01 series of amendments. Other outstanding issues are NOx reagent control and OBD provisions.

The presentation reviews the meetings held and defines the role of the editorial group (UK, CH, NL, D & AECC) as being to implement in the draft Regulation the outcome of discussions in the informal group and comments on the draft text from informal group members, and to identify issues for discussion in the informal group.

The REC group asks GRPE for an extension of its mandate by two years as a result of the time-consuming but necessary discussions on the general approach and other outstanding discussions. It is intended to nevertheless complete the Regulation as soon as possible – it not intended that the full 2 years should be taken. It was agreed that it needs to be clarified whether the existing mandate would allow drafting of the 01 series of amendments.

Schulte proposed that once the extension of the mandate is agreed, an internal time plan (with drafting responsibilities) should be prepared. The group agreed to this proposal. The secretary noted that GRPE should also be asked for a ½ day meeting at the next session. It was agreed that the chairman and Eberhardt would refine the wording of the presentation to GRPE.

7. Next REC meeting

The next meeting will be held at KTI in Hungary. The REC secretariat will circulate a doodle poll to get agreement on suitable dates. There will also be one (or two) meeting(s) of the editorial group. The first could be in the week commencing 26 March 2012; dates are to be agreed within that group. Those who have committed to prepare draft provisions were asked to submit them to the secretariat by 16 March 2012 to allow their inclusion by the editorial group in their meeting one week later.

8. Any other business

Berger noted that Switzerland has started testing of retrofit deNOx systems to gain knowledge of such systems. This could eventually contribute to the work of REC.