

**Minutes of the 7th meeting of the GRPE Informal Group on
Environmentally Friendly Vehicles (EFV) held at Geneva on 11th June 2010.**

The GRPE informal group on Environmentally Friendly Vehicles (EFV) held its seventh meeting in Geneva on 11th June 2010, under the chairmanship of Mr. Ambuj Sharma, Joint Secretary, Government of India, Department of Heavy Industry (DHI), Ministry of Heavy Industries & Public Enterprises (MoHI&PE).

I. Welcome address and organizational issues:

1. The Chairman opened the seventh informal group meeting and welcomed all the participants. He thanked Chairman GRPE Mr. Bernard Gauvin and Secretary GRPE Mr. Romain Hubert for providing the spacious venue in room XXI along with translation facilities. The Chairman gave an overview about the available documents and thanked everybody for their contribution.

II. Adoption of the Agenda

(Document Working Paper No EFV-07-01):

2. There being no comments—from any of the members, the agenda (EFV-07-01) was adopted unanimously.

III. Adoption of the minutes of 6th EFV informal group meeting

(Document Working Paper No. EFV-06-02):

3. There being no comments—from the members, the minutes of the 6th EFV meeting of the Informal Group held in Geneva on the 15th January, 2010 was adopted unanimously.

IV. Report to 60th GRPE (June 2010)

(Document Working Paper No. GRPE-60-XX)

4. The chairman briefed the GRPE about the progress made by the EFV Informal Group during its 6th meeting held at Geneva on 15th January 2010.

- The representative from IEA informed that CO2 emissions/ fuel efficiency could be taken as the starting point for developing EFV concept. He also suggested that the existing framework and standards for fuel efficiency and testing could form the basis for initiating work.
- The representative from OICA viewed that it needs to be decided by the Informal Group members whether it would be better to concentrate to any one single concept or whether it would be better to have a more holistic approach.
- Chairman of Informal Group on EFV informed that the whole approach to development of the concept of EFV was started with the idea of having a holistic

approach, however, in the work already carried out in the Phase-I of the Informal Group, it has emerged that it may not be feasible to follow a holistic approach.

- The secretary GRPE informed that Phase – I of the working group has lead to the conclusion that it may not be possible to have one fixed definition of EFV, as the concept is very complex with many dimensions.
- The representative from Germany recalled that the informal group on EFV had initially started with the idea of having an holistic approach to define EFV, however after discussions in Phase – I, a number of reasons emerged which lead to the conclusion that it is not possible to have one single score to define EFV. Therefore, it was concluded that it might not be possible to have holistic approach to EFV concept.
- Chairman requested all the members to provide their thoughts and proposals, if any, to chalk out the path of EFV concept that needs to be developed.

150th WP 29

(Document Working Paper No. ECE/TRANS/WP.29/1083 dated 22 March 2010)

The representative of India, chairing the informal group on EFV, informed the World Forum of the fifth and sixth informal meetings of the group (the minutes are available at (<http://www.unece.org/trans/main/wp29/wp29wgs/wp29grpe/efv06.html>)). He invited all representatives to send him their comments on the road map of the EFV group's work for the next two-year period. He added that the next meeting of Informal Group was scheduled to be held in conjunction with the June 2010 session of GRPE. During the meeting he expected the group to consider new working papers tabled by the experts from OICA and India.

V. EFV Concept

(Document Working Paper No. EFV-07-02, EFV-07-03, EFV-07-04, EFV-07-05, EFV-07-06) :

6 Chairman reviewed the earlier deliberations taken in 5th and 6th Informal Group meetings. He mentioned that while it is very well appreciated that holistic approach from well to wheel is difficult, so also one cannot have a narrow approach of taking into consideration only one or two parameters while defining EFV performance of vehicles. He urged the members to give their ideas for a way forward to achieve our mandate.

- Based on the earlier discussions in the 6th EFV Informal Group meeting India had written to all the members on 1st March 2010 about a possible approach and comments were invited from them. Copy of the communication and replies from members are attached.
- Subsequently, India had also hosted four working papers on CO2 emissions, regulated pollutants, recyclability and noise (Nos. EFV-07-02, EFV-07-03, EFV-07-04 and EFV-07-05 respectively). OICA had also hosted Working paper No. EFV-07-06 expressing their views on the documents hosted by India.
- Chairman requested India and OICA to introduce their documents for deliberations by the members.

7. Representative from India introduced the documents and reviewed the status of world wide practices followed in different countries for each parameter, suggested method for EFV assessment and the justification for the same. India mentioned that the importance of various parameters of assessment will be different and hence a weighting was suggested for each of the four parameters.

- **CO2 Emissions: (Document Working Paper No: EFV-07-02) :** 40% weightage given to the CO2 emissions. Only tank to wheel emissions were considered.
- **Regulated Pollutants: (Document Working Paper No: EFV-07-03) :** 30% weightage given. The Type Approval data to be taken into consideration for rating.
- **Recyclability : (Document Working Paper No: EFV-07-04) :** 20% weightage to recyclability.
- **Noise: (Document Working Paper No: EFV-07-05) :** 10% weightage given to noise. Noise level of 60dB given the highest score of 10.
- **Type of Fuel:** Feasibility of this parameter needs to be relooked.

8. The expert from USA commented that the documents prepared were a good starting point where all the relevant information was collected at one place. It will also be essential to keep in view the futuristic technological developments while forming the criteria for EFV. Even though it may not be practical to consider a holistic approach of WTW (Well to Wheel) as the component of Well to Tank is essentially outside the purview of the auto sector manufacturers, these issues should be covered and duly explained in the preamble so that those are not completely out of sight.

9. The expert from Belgium expressed that overall the documents introduced are good. However, it may be still worthwhile to examine the feasibility of addressing the Well to Tank issue to the extent possible.

10. The expert from Germany also expressed that the documents introduced were good base documents, which need to be developed further.

11. **CO₂ Emissions:**

- The expert from USA suggested that we should consider the overall green house gas emissions rather than concentrating only on CO₂.
- The expert from Belgium mentioned that while considering CO₂ emission for electric / hybrid vehicles, the comparison with IC engines may be unfair if we consider only tail pipe emissions since CO₂ emission during the production of electricity is not kept in view.
- The expert from Germany commented that we should consider fuel consumption / energy consumption for comparison of vehicles rather than only CO₂ emissions.
- The expert from OICA raised also the point of including GHG emission rather than concentrating only on CO₂. He also highlighted that comparison between electric vehicle and I.C. engine vehicle may be unfair, if we consider TTW (Tank to Wheel). Since in countries like Germany, USA, substantial electrical energy is generated by coal, which itself have high carbon emissions.
- The expert from UK, also opined that it would be worth exploring the possibility of using energy consumption figures.

12.. Regulated Pollutants:

- The expert from Belgium opined that the proposal introduced on regulated pollutants does not provide any initiative on achievement of emission levels much better than the norms either by design or by fitment of special after-treatment devices.
- The expert from OICA expressed that it may be difficult to say that a particular vehicle has over performed based on only TA value. TA value demonstrates the capability of design. COP procedure demonstrates the fulfillment of production volumes to meet the limit values and in service conformity demonstrates the capability of maintaining the emission levels during normal usage. As such it may not be right to give any additional consideration to emission levels of vehicle during Type Approval.
- The expert from UK had similar views on this issue.
- The expert-from USA expressed that the assessment should be fuel neutral and hence it may not be sufficient to just assess on meeting the regulated norms.

13. Recyclability:

- OICA questioned the necessity of specifying this parameter. Austrian representative expressed the necessity of considering also the energy used in recycling while assessing the vehicle performance for EFV. There was a general feeling that this parameter needs to be further explored.

14. Noise:

- The expert from Germany requested for the reasoning / rationale behind specifying 60 dBA for the quietest vehicle. He further commented that considering the noise generated between the road and tyres, we can at most consider 64 ~ 65 dBA as the best value for noise rating. He raised the issue of noise being not only dependent on the vehicle, but also on the road surface. He also mentioned that the noise related aspect / proposal may also be referred to GRB for their consideration and advice.
- Secretary GRPE informed about the demonstration of noise generated with special road surface given by the construction company in Geneva during the last GRB meeting. He added that such a “quiet road surface or silent pavement” is achieved by a special top layer of 40~50 cm and the cost addition is approx. 20~30% of the normal road. He further clarified that though there is a large reduction in noise of almost 8 ~ 10 dB, durability of this surface is not proved—as yet, since this is a recent phenomenon of 3-4 years.
- He offered to include EFV Doc. No.-07-05 for discussions in the next GRB meetings.
- He also mentioned that the issue of the needs of the visually impaired/challenged persons is already before the GRB, and its outcome would have a bearing on the noise parameter being considered by this informal group.
- The ~~expert~~ representative from India clarified that the figure of 60 dBA was suggested keeping in view the Electric Vehicle.

15. The expert from OICA introduced OICA document EFV-07-06, which had the following highlights.

- Strong reservation on the idea of a single score with different weightings for different parameters.
- Type of fuel should not be eliminated from the assessment.
- Noise and pollutant assessment should be based on existing regulations.
- Automotive industry can provide only tailpipe emissions data.
- Recyclability might not be the most important item to include looking at the environmental relevance.

VI. Way forward and Action Plan:

16. The Chairman requested the USA and Germany to consider submission of documents / paper on EFV concept and additional information based on the deliberations and work being done in this field in their respective countries.

17. The Chairman requested members of IG EFV to offer their views and supporting documents so that the EFV group can take the next step and firm up the outline for further work.

18. Chairman informed that the next IG EFV meeting will be along with the next GRPE meeting in January 2011 and requested the Secretary to plan accordingly. He also thanked EFV informal group members for their contribution and support.

VII. Any other business:

19. The EFV group noted that no new information was presented under this agenda item.

VIII. Next steps and schedule:

20. The chairman introduced following next steps and schedule, agreed by the EFV group:

- Comments on documents and deliberations by 2nd August 2010.
- Working papers by 30th September 2010.
- Next Informal group meeting in conjunction with 61st session of GRPE, in January, 2011, in Geneva.

The meeting ended with a vote of thanks to the Chair.
