



Informal Group on Gaseous Fuelled Vehicles (GFV)

Report 70th GRPE January 2015



Meetings GFV Group

- 35th GFV meeting
 - **28-29 October 2014 Rome**
- 36th GFV meeting
 - **3 December 2014 Brussels**
- 37th GFV meeting
 - **13 January 2015 Geneva**



GFV items

Retrofit Heavy Duty Dual Fuel Task Force (retrofit HDDF TF)

The development of a new UN Regulation for retrofit heavy-duty dual-fuel systems.

Organisation:

- In the GFV group we discuss the decide on the fundamental items of the retrofit HDDF process.
- Retrofit HDDF Task Force concentrate on the development of the new regulation
- Chair Task Force retrofit HDDF: TNO (Henk Dekker)
- Secretariat HDDF TF → NGV global (Jeff Seisler)

Meetings:

- 2 September 2014,
- 28-29 October 2014,
- 3 December 2014,



GFV items

Status of the discussion new HDDF retrofit regulation

- A new UNECE Regulation will include the requirements for the type approval of retrofit systems intended to be fitted on a heavy duty diesel vehicle to enable its operation either in diesel mode or in dual-fuel mode.
- Only Euro IV, Euro V and EEV vehicles included in the first release of the regulation.
- Until now the principle and the structure of the new regulation have been discussed.



GFV items

HDDF retrofitted engines and vehicles

- Regulation for TA of **systems** for retrofitting diesel vehicles to dual-fuel operation, but references to TA of **engines** (R49)
- Tension between retrofit conversion effort/costs and environmental impact/benefit
- Level playing field for both retrofit system manufacturers and engine/vehicle manufacturers
- Euro IV, V and EEV diesel engines have limited diagnostic functionality and no NO_x closed loop control (difference with R115 for LDV's).
- Attention for the natural gas emissions of NG retrofits

Note: Natural gas is not a pollutant emission but a greenhouse gas (GHG) emission like CO₂ (but 25 times stronger);



GFV items

HDDF retrofitted engines and vehicles

- Retrofit system family and application range
- Details of this procedure still to be developed and verified.

Emission test on engine test bench during initial type approval



PEMS test for extending the application range (type-approval extension)



GFV items

HDDF retrofitted engines and vehicles

- There is a certain interest to TA only the engine part of the retrofit system.
- Others may wish to TA a complete retrofit system with the engine and also all gas components to be mounted in the vehicle (for example, fuel storage systems).
- Consideration concerning TA procedures and responsibilities ongoing.



GFV items

HDDF retrofitted engines and vehicles

Timing/roadmap *half year delay from initial roadmap:*

○ January 2015	70th GRPE:	report
○ June 2015 (planned)	71th GRPE:	informal document
○ January 2016 (planned)	72th GRPE:	formal document
○ June 2016	WP.29:	adoption



GFV items

Other items

- Development of a clear definition of bi-fuel and dual-fuel vehicles at the request of the VPSD.
- Investigation for a liaison with UNECE initiative of the Group of Experts on Gas (GEG) with newly created Task Force D (Removing Barriers to the Use of Natural Gas as a Transportation Fuel)

A decision from the Executive Committee on Sustainable Energy that mandates the Group of Experts on Gas to provide a forum for multi-sustainable and clean United Nations stakeholder dialogue on ways to promote the production, distribution, and consumption of gas in the Economic Commission for Europe (ECE) region.



Next steps GFV

o Next meetings GFV and HDDDF-retrofit Task Force

- 28 January 2015 HDDDF TF (Brussels, DG Enterprise) 10.00-17.30
- 25 February 2015 GFV/HDDDF TF(Brussels, RDW office)10.00-17.30
- 25 March 2015 GFV/HDDDF TF (Brussels, DG Enterprise)
- GFV request to GRPE for a ½ day meeting during the 71st GRPE
