



European Commission

Enterprise and Industry Directorate General

# **PEMS-PM Evaluation Programme**

**1<sup>st</sup> meeting**

**Brussels, 13 March 2008**

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# Legislative framework of in-service conformity

## **Directives 2005/55/EC, 2005/78/EC (Euro IV-V):**

- correct operation of the emission control devices during the normal life of the vehicle under normal conditions of use is confirmed
- conformity of properly maintained and used in-service vehicles/engines is ensured

## **Euro VI proposal (COM(2007) 851 final):**

- In order to better control actual in-use emissions including OCE and to facilitate the in-service conformity process, a testing methodology and performance requirements based on the use of portable emission measuring systems (PEMS) should be adopted.

# **Legislative framework of in-service conformity**

**ISC can be demonstrated by:**

- 1. Presenting test data as measured on the test cycles**
    - as required by Directives 2005/55/EC and 2005/78/EC
    - but: removal of engine is cumbersome, time consuming and costly
  - 2. Data obtained through the use of mobile measuring equipment fitted to vehicles**
    - this method is considered as the most cost-effective one for ISC checking
    - measurement is easier to perform
- ⇒ A new PEMS-based ISC framework needs to be established, if possible for Euro V**

# PEMS Pilot Programme

- EU-PEMS project has been successful
  - aim was to study the feasibility of PEMS with a view to their application in Europe for ISC checking of heavy-duty vehicles
  - completed in June 2006
- PEMS Pilot Programme: next step in the process of introducing PEMS as a tool for heavy-duty vehicle ISC
- 2 phases:
  1. testing for gaseous emissions started in 2007
  2. PM measurement programme with 1 year delay



# PEMS Pilot Programme Objectives

- To validate the use of PEMS for in-service conformity;
- To evaluate the PEMS test protocol and its implementation;
- To provide further information on incorporating the PEMS approach in the European type-approval legislation;
- To develop and share 'best practice' approach for the use of PEMS in ISC testing to all relevant stakeholders;
- To benchmark the dialogue between manufacturers and type-approval bodies (reporting format);
- To address open technical issues of the PEMS Project.



# **PEMS Pilot Programme Participants**

- **European Commission**
  - **General co-ordination: DG ENTR**
  - **Technical co-ordination: DG JRC**
- **Member State authorities**
- **Technical services**
- **Vehicle and engine manufacturers**
- **PEMS equipment manufacturers**
- **Consultant (TNO, TUG, TÜV Nord)**

# PEMS Pilot Programme Timing

- **Gaseous phase:**
  - tests started in second half of 2007, will finish soon
  - evaluation of the programme has started
- **PM phase:**
  - one year after gaseous phase
- **Euro VI:**
  - Co-decision proposal adopted on 21 December 2007
  - Split-level approach: specification of technical requirements in comitology
  - Drafting of comitology text will be started
- **Detailed ISC requirements will be included in comitology Regulation**

# Conclusions

- **Introduction of PEMS ISC requirements:**
  - will be done through comitology
  - for Euro V stage if results of the Pilot Programme are available in time
  - will be introduced for Euro VI
- **A proposal should include:**
  - administrative procedures for ISC checks
  - specifications for PEMS equipment
  - test protocols when developed and validated
- **PM phase is essential for the introduction of ISC requirements in HD legislation.**



## More information

- Website for documents of PEMS Pilot Programme (meetings, reporting documents, etc.)  
[http://ec.europa.eu/enterprise/automotive/pems\\_meetings/index.htm](http://ec.europa.eu/enterprise/automotive/pems_meetings/index.htm)
- EC DG JRC PEMS website:  
<http://eu-pems.jrc.it/>



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THANK YOU  
for your attention

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