On-road Heavy-duty Engine
Off-cycle Emissions gtr (OCE gtr)
Status Report for AC.3

Report from the United States
24th Session of Executive Committee AC.3
13 November 2008
Overview

- Background
- Key Elements
- Performance Requirements
- Remaining Issues
- Acknowledgements
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OCE gtr: Background

- Informal group of technical experts under GRPE
  - Regular meetings since 2002
    - 21 Plenary sessions
    - 6 Editorial sessions

- June 2008
  - The gtr was submitted as an Informal Document to GRPE
    - (ECE-TRANS-WP29-GRPE-56-inf14e)
The OCE gtr complements the WHDC gtr
- On-cycle control
- Off-cycle control

World-harmonized Not-to-Exceed (WNTE) “Control Area”
- Large operating zone within which the WNTE emission limits apply
- WNTE emission limits are stated as a function of the WHDC emission limits
  - WNTE emission limits are slightly higher than the corresponding WHDC emission limits

Statement of OCE Compliance
- The manufacturer must provide a statement that attests to compliance with the provisions of the OCE gtr

OCE Laboratory Test Procedure
- An optional laboratory test procedure is included
- Contracting Parties may choose to require testing to verify OCE compliance prior to type approval

The gtr does not include specifications for in-use vehicle testing or on-vehicle emission measurement equipment
- But, the WNTE was developed to allow for testing of compliance during in-use, on the road operation of the engine
- Individual countries and regional authorities may specify their own in-use testing requirements to enforce WNTE
OCE gtr: Performance Requirements

- Emission strategies shall be designed to enable compliance with the gtr
  - A “base emission strategy” shall not discriminate between test cycle operation and other operation and provide lesser emission control during operation not included on the test cycle
  - An “auxiliary emission strategy” shall not reduce emission control unless
    - It operates on test cycles, including the WNTE
    - It provides protection to the engine
    - It operates only on starting or warming up
    - It trades control of one pollutant for another while maintaining acceptable emission control

- An emission strategy that fails to meet the performance requirements is a “Defeat Strategy”
  - Defeat strategies are prohibited by the gtr
OCE gtr: Remaining Issues

- There remain no outstanding issues with the current gtr
- The absence of in-use testing procedures may represent an opportunity for future gtr action.
OCE gtr: Acknowledgements

- As sponsoring country, the United States wishes to thank all those that have contributed to development of the OCE gtr.
- Particular thanks to the following for continued support and hosting of meetings
  - European Commission
  - The Netherlands
  - The German government
  - The Japanese government and JASIC
  - The UK government
  - Environment Canada
  - Engine Manufacturers Association
OCE gtr: Acknowledgements

The United States wishes to recognize the valuable contributions made by representatives of the following organisations:

- Environment Canada
- European Commission DG Enterprise
- Joint Research Centre
- Federal Ministry of Transport, Germany
- Federal Environmental Agency, Germany
- RWTUEV Fahrzeug GmbH, Institute for Vehicle Technology, Germany
- TÜV NORD Straßenverkehr GmbH, Germany
- Institute for Transport Sciences, Hungary
- International Organization of Motor Vehicle Manufacturers
- International Organization for Standardization
- Ministry of Land, Infrastructure and Transport, Japan
- Ministry of the Environment, Japan
- National Traffic Safety and Environment Laboratory, Japan
- Japan Automobile Research Institute
- Japan Automobile Standards Internationalization Center
- Japan Automobile Manufacturers Association
- Netherlands Ministry of the Environment
- Korea Automobile Testing & Research Institute
- Swedish Environmental Protection Agency
- Department for Transport, United Kingdom
- Engine Manufacturers Association
OCE gtr: Next Steps

- **January 2009**
  - The OCE gtr will be submitted on 15 January to the 57th GRPE

- **March 2009**
  - The US is optimistic that the OCE gtr will be submitted as an Informal Document to the 25th AC.3