

Real Driving Emissions: Impact on Engineers

31st October 2017

Thinktank Science Museum, Birmingham

SEMINAR AGENDA

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| | TUESDAY 31ST OCTOBER 2017 |
| 08:30 | REGISTRATION AND REFRESHMENTS |
| 09:00 | CHAIR'S OPENING REMARKS Paul Markwick, Managing Director of Operations, The Manufacturing Technology Centre |
| | REGULATIONS IN PRACTICE |
| 09:10 | AN OVERVIEW OF GOVERNMENT ACTION TO ADDRESS AIR QUALITY Tom Slater, Deputy Head, Joint Air Quality Unit, Department for Environment, Food & Rural Affairs (DEFRA) |
| 09:40 | PRACTICALITY, TEST SUCCESS AND EFFICIENCY CHALLENGES OF OPERATING A REAL DRIVING EMISSIONS TEST SERVICE Tom Moakes, Project Engineer, HORIBA MIRA <ul style="list-style-type: none"> • Addressing the practicalities of delivering an effective and compliant test service • Maintaining test efficiency, achieving a high RDE test success rate and reducing the need for repeat tests • Utilisation of live feedback tools to facilitate driver familiarisation with vehicles, test routes and test conditions |
| 10:10 | EURO 6 DIESEL EMISSIONS CONTROL SYSTEM APPROACHES, AND IMPACTS ON RDE EMISSIONS – RESULTS FROM THE CONCAWE DIESEL EMISSIONS PROJECT Jon Andersson, Manager, Aftertreatment and Chemical Analysis Department, GTE Emissions Measurements and Standards, Ricardo UK |
| 10:40 | QUESTION AND ANSWER SESSION |
| 10:55 | NETWORKING REFRESHMENT BREAK |
| | TESTING METHODOLOGIES |
| 11:25 | TRANSIENT EMISSIONS FEATURES MEASURED WITH FAST RESPONSE ON-BOARD ANALYSERS Mark Peckham, Director, Cambustion <ul style="list-style-type: none"> • Measurement of engine-out and tailpipe emissions correlated with ECU data • Using fast response data to associate emissions spikes with their causes • Accurate mapping of urban air quality "hot-spots" |
| 11:55 | SIMULATED REAL DRIVING EMISSIONS TESTING OF PLUG-IN HYBRID ELECTRIC POWERTRAINS David Meek, Engineering Director, Intertek <ul style="list-style-type: none"> • Simulating Intertek's RDE driving routes in a repeatable powertrain test environment • Description of the process to accurately simulate RDE conditions and road loads on a bare hybrid powertrain • Outline of the benefits of this new service |

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| 12:25 | PANEL: DEVELOPING BEST PRACTICE FOR RDE AND WLTP <p>Marcus Davies, Emissions and Core Calibration Manager, Ford Motors Phil Stones, Chief Engineer Powertrain, Millbrook Jon Andersson, Manager, Aftertreatment and Chemical Analysis Department, GTE Emissions measurements and standards, Ricardo UK</p> <ul style="list-style-type: none"> Adapting data analysis and reporting in response to changing test procedure What lessons have been learnt thus far and what can we learn from these? Predicting key areas where problems may occur and how to avoid them |
| 12:55 | QUESTION AND ANSWER SESSION |
| 13:10 | NETWORKING LUNCH |
| | RESULTS AND ANALYSIS |
| 14:10 | USING REAL-WORLD RATINGS TO VALIDATE VEHICLE PERFORMANCE AND DRIVE RAPID IMPROVEMENTS IN URBAN AIR QUALITY <p>Nick Molden, Founder and CEO, Emissions Analytics</p> <ul style="list-style-type: none"> How Euro 5 and 6 diesels contribute to the air pollution problem, and how RDE and WLTC, together with retrofits and scrappage schemes, will address the problem How the EQUA Index rates vehicle emissions on an independent and real-world basis, and how London publishes the EQUA Index to drive behaviour beyond its proposed ULEZ Future prospects for different powertrain types |
| 14:35 | ANALYSIS OF A DIESEL PASSENGER CAR ON ROAD AND OVER STANDARD DRIVE CYCLES <p>Richard Burke, Senior Lecturer, University of Bath</p> |
| 15:00 | QUESTION AND ANSWER SESSION |
| 15:10 | NETWORKING REFRESHMENT BREAK |
| 15:40 | INTERACTIVE ROUNDTABLE SESSIONS <ul style="list-style-type: none"> How can emissions results coming from an RDE test cycle be separated from influences such as the environment, driver influences and track itself? How best can automotive engineers compare RDE and WLTP data? What is the relationship between real driving emissions and fuel consumption? |
| 16:55 | ROUNDTABLE FEEDBACK |
| 17:15 | CHAIR'S CLOSING REMARKS |
| 17:30 | END OF SEMINAR |