

MINING DIESEL  
**mdec**  
EMISSIONS CONFERENCE

**HILTON SUITES, TORONTO/MARKHAM, ONTARIO**

**OCTOBER 12 – 14, 2005**

**TUESDAY, OCTOBER 11, 2005**

**18:00 - 20:00 PRE-REGISTRATION** (Markham Ballroom Foyer)  
**EXHIBIT ROOM SET UP** (Markham Ballroom A)

**WEDNESDAY, OCTOBER 12, 2005** (Markham Ballroom B/C)

**07:00 REGISTRATION**

**08:00 CONFERENCE OPENING CEREMONIES:**

Welcome and Introduction, *Edward Richards (Lubrizol-ECS), Co-chair MDEC*

Official Conference Opening, "*Thermodynamics, Kinetics, Chaos and Communication*",  
*Dr. Bruce Conard (Chair, DEEP Management Board)*

Organization, *Dr. Mahe Gangal (NRCan/CANMET-MMSL), Co-chair MDEC*

**08:30 SESSION 1: CONSORTIUM PROJECTS**

**CHAIRPERSON: Bruce Conard (Chair, DEEP Management Board)**

Evaluation and Experience with Particulate Filter Systems at Inco, *J. Stachulak, B.R. Conard and G. Nault (Inco); A. Bugarski and G. Schnakenberg (NIOSH)*

Laboratory Evaluation of Diesel Particulate Filters, *M. Gangal, B. Rubeli, D. Young (NRCan), and J. Stachulak (Inco)*

NRC's Industrial Research Assistance Program: Supporting Companies in Research and Development and Accessing Technology, *Linda Meret (NRC-IRAP)*

**10:00 COFFEE BREAK**

**10:20 SESSION 2: REGULATORY PERSPECTIVES**

**CHAIRPERSON: Michel Grenier (NRCan)**

Initiatives to Control the Occupational Exposure to Diesel Particulate Matter (DPM) in the South African Mining Industry, *Willie van Niekerk and Dricky Simpson (INFOTOX, South Africa), Vijay Nundlall (Department of Minerals and Energy, South Africa) and Dave Unsted (Envent Consutling) – PRESENTATION WITHDRAWN*

DPM Exposures in Metal and Nonmetal Mines in the United States 2002-2005 and the 2005 Final Rule on the Interim Limit, *Doris Ann Cash and William Baughman (MSHA)*

Diesel Vehicle Emissions in Underground Mines: The South African Perspective, *Nardus Potgieter (Infotox, South Africa)*

**11:50 LUNCH - introduction of sponsors**

**13:10 SESSION 3: CONTROL TECHNOLOGIES - I**  
**CHAIRPERSON: Aleksandar Bugarski (NIOSH)**

SCR Retrofits: A Practical Approach for Reducing NO<sub>2</sub> Emissions in Salt Mines, *Thierry Leprince (Extengine Transport Systems)*

Potential of Synthetic Fuel to Reduce Emissions, *Gregory T. Orrell (Lancer Industries)*

Hydrogen Fuel Injection - The Bridge to Fuel Cells, *Steve Gilchrist (Canadian Hydrogen Energy Company)*

**14:40 COFFEE BREAK**

**15:00 SESSION 4: MAINTENANCE & TRAINING**  
**CHAIRPERSON: Kevin Brown (Lubrizol – ECS)**

Emission Based Maintenance Program, *Steve “Skinner” Forbush (Arch Western Bituminous Group)*

The Western U.S. Mine Health and Safety Training and Translation Center’s DPM Project, with a Special Emphasis to DPM Compliance Workshops, *Jerry C. Tien and Larry Grayson (University of Missouri-Rolla)*

**16:00 ADJOURNMENT**

**16:00 – 18:00 CASH BAR, RECEPTION & NETWORKING** (Markham Ballroom Foyer)

**THURSDAY, OCTOBER 13, 2005** (Markham Ballroom B/C)

**08:00 SESSION 5: CONTROL TECHNOLOGIES - II**  
**CHAIRPERSON: Joe Stachulak (Inco)**

Testing of a Johnson-Matthey Low-NO<sub>2</sub> DPF, *Darrick Zarling (University of Minnesota)*

Diesel Particle Filters with Active Regeneration in Mining – Practical Experiences from Mines in North America and Europe, *Hans-Jörg Rembor (HUSS Umwelttechnik GmbH)*

Global Approach to Diesel Aftertreatment Issues in Mining Industry, *Arno Amberla, (Finnkatalyst, Finland)*

Wall-flow Diesel Particulate Filter Active Regeneration Systems by Using Plasma Discharges, *Yun Yang (Loughbrough University, UK)*

**10:00 COFFEE BREAK**

**10:20 SESSION 6: COMPLIANCE STRATEGIES**  
**CHAIRPERSON: David Young (NRCan)**

A Global Approach to Managing Diesel Emissions, *Sean McGinn (McGinn Integration Inc), Brian Davies (AEHS Pty. Ltd.) and T White (BHP Billiton Pty Ltd)*

Stillwater Mining Company’s Plan for DPM Reduction, *Rick Collins (Stillwater Mining)*

Exposure to Diesel Particulate Matter (DPM) and Regulations in Canadian Mining Provinces, *Gary Bonnell (NRCan)*

**11:50 LUNCH - award of draw prizes**

**13:10 SESSION 7: FIELD STUDIES**

**CHAIRPERSON: Doris Cash (MSHA)**

Diesel Particulate Matter in Underground Mines, *Aleksandar D. Bugarski, James D. Noll, Steven E. Mischler and George H. Schnakenberg (NIOSH)*

Diesel Particle Filter Systems in Tunneling in Switzerland, Filtration Efficiency, Secondary Emissions, Operation Experience and Overall Effect on Ambient Air, *A.Mayer (TTM), M.Kasper (ME), N.Heeb (EMPA), J.Czerwinski (AEHB), W.Scheidegger (SUVA)*

Novel Approaches to Measure Diesel Emissions, *L. W. Antony Chen, Hans Moosmüller, W. Patrick Arnott, and John G. Watson (Desert Research Institute), Pierre Mousset-Jones (University of Nevada)*

**14:40 COFFEE BREAK**

**15:00 SESSION 8: ECONOMICS & FINAL PLENARY CONSULTATION**

**CHAIRPERSON: Mahe Gangal (NRCan)**

Diesel Power Vehicles, Pollution, and the Economic Balance Thereof, *CA Rawlins (University of the Witwatersrand, South Africa)*

Final Plenary Consultation, Mahe Gangal (MDEC Co-chair)

Summary of comments from MDEC 2004

Review of MDEC 2005

Plan for MDEC 2006

Final remarks

**16:00 ADJOURNMENT**

**FRIDAY, OCTOBER 14, 2005**

**08:00 – 10:00 A Short Maintenance Workshop on Engine and Emission Control Technologies**

Bob Hart (Cummins), Rick Collins and Calvin Southwick (Stillwater Mining)

**Violet and Orchid Rooms**

**10:00 – 10:30 COFFEE BREAK**

**10:30 – 12:00 ROUNDTABLE FORUM**

1. DPM Implementation (Active, Passive, Regeneration and Durability), **Violet Room**

Facilitator: Brent Rubeli (NRCan)

2. Measurements and Analysis (CO testing, EC/OC), **Orchid Room**

Facilitator: John Vergunst (Ontario Ministry of Labour) & Garry Bonnell (NRCan)