



**Toronto Airport Marriott Hotel, Ontario, Canada
October 8 – 10, 2013**

MONDAY, OCTOBER 7, 2013

09:00 – 17:00 Field trip to Sir Adam Beck 2 Generating Station and Niagara Tunnel Project, Niagara Falls, Ontario, bus leaves the hotel at 09:00 and returns at 17:00

TUESDAY, OCTOBER 8, 2013

07:30 – 08:30 WORKSHOP REGISTRATION & BREAKFAST

08:30 – 16:30 WORKSHOP- Emissions Testing: Best Practices, Methods and Maintenance, *Brent Rubeli (Natural Resources Canada) & Sean McGinn (MKNIZD Factors Inc.)*

17:00 - 19:00 CONFERENCE PRE-REGISTRATION & NETWORKING

18:00 – 22:00 EXHIBIT ROOM SET UP

WEDNESDAY, OCTOBER 9, 2013

07:30 CONFERENCE REGISTRATION AND BREAKFAST

08:30 SESSION 1: CONFERENCE OPENING CEREMONIES:

Welcome: *JP Ouellette (Kubota Canada Ltd.), Co-Chair MDEC Conference*

Introduction of Keynote Speaker: *David Young (Natural Resources Canada), Secretary MDEC*

Keynote Address: *Dr. John Wall (Vice President and Chief Technology Officer, Cummins Inc.), The Future of Diesel Engine Technology*

Vote of Thanks: *Evelynn Stirling (Cummins Inc.), MDEC Advisory Committee*

Organization: *Mahe Gangal (Natural Resources Canada), Co-Chair MDEC Conference*

10:00 COFFEE BREAK

10:30 SESSION 2: DPF Studies

CHAIRPERSON: *JP Ouellette (Kubota Canada Ltd.)*

Fuel borne catalysts and aerosol emissions from sintered metal filtration system, *Aleksandar D. Bugarski, Jon A. Hummer, Larry D. Patts, Shawn Vanderslice, & Arthur L. Miller (NIOSH) and Jozef S. Stachulak (Vale)*

HJS/TFH approach for NO₂ neutral DPM technology by SMF, *Bob Clayton (T.F. Hudgins Inc.)*

Vehicle pre-assessments for extended DPF performance, *Paul Grylls, Karen Eccles & Joe Aleixo (DCL International Inc)*

12:00 LUNCH

13:00 SESSION 3: Diesel Emissions Monitoring
CHAIRPERSON: Robin McCaw (DCL International Inc.)

Diesel emission in underground mining – A program for control, shared learning from Queensland, Australia, Kevin Hedges, (former Senior Principal Occupational Hygienist Queensland Mines Inspectorate)

Underground real time diesel exhaust gas sampling update, Cheryl Allen (Vale Canada Ltd.) and Doug O'Connor (D.O'Connor Consulting Ltd)

Study of diesel emissions relating to air quality in the ramp at Niobec mine, Sean McGinn (MKNIZD Factors Inc.) and Éric Coté (Niobec Mine – IAMGOLD Corporation)

14:30 COFFEE BREAK

15:00 SESSION 4: Biodiesel and Health Studies
CHAIRPERSON: David Young (Natural Resources Canada)

Diesel exhaust emissions and its adverse health effects, Masood Ahmed (Occupational Health Clinics for Ontario Workers)

Establishing total airflow requirements for underground metal/non-metal mines based on the diesel equipment fleet, J. Danial Stinnette (Mine Ventilation Services)

CANCELLED: Biodiesel as a control strategy for reducing exposure of underground miners to diesel aerosols, Part I: Effects on physical and chemical properties of emitted aerosols, Aleksandar D. Bugarski, Jon A. Hummer, Larry D. Patts, Emanuele G. Cauda, Shawn Vanderslice, Anna A. Shvedova, Mariana Farcas, Elena Kisin, and Naveena Yanamala and M. Eileen Birch (NIOSH)

CANCELLED: Biodiesel as a control strategy for reducing exposure of underground miners to diesel aerosols, Part II: Effects of toxicological properties of emitted aerosols, Anna A. Shvedova, Mariana Farcas, Elena Kisin, Naveena Yanamala, M. Eileen Birch, Aleksandar D. Bugarski and Jon A. Hummer (NIOSH)

16:30 ADJOURNMENT

16:30 – 18:30 RECEPTION & NETWORKING

THURSDAY, OCTOBER 10, 2013

07:30 REGISTRATION AND BREAKFAST

08:30 SESSION 5: Diesel Particulate Matter and Fuel Cell Systems
CHAIRPERSON: Joe Stachulak

Keynote Address: Dr. Andreas Mayer (VERT), Particle number PNC replacing particle mass PM for emission and ambient control

HyPM HD fuel cell systems for heavy duty green mining, Ryan Sookhoo (Hydrogenics Corp.)

10:00 COFFEE BREAK

10:30 SESSION 6: Ventilation Studies
CHAIRPERSON: Rick Banting (Workplace Safety North)

Provincial mining ventilation blitz update, Glenn Staskus (Ontario Ministry of Labour)

Engine certification testing and ventilation rates for Tier 4 update, Brent Rubelj and Mahe Gangal (Natural Resources Canada)

Impact of diesel equipment on ventilation in Quebec underground mines, Rody K. Mafuta, Kostas Fytas, Jacek Paraszczak and Marcel Laflamme (Laval University)

12:00 LUNCH - introduction of sponsors and award of draw prizes

13:00 SESSION 7: Aftertreatment Systems & MDEC Plenary Consultation
CHAIRPERSON: Mahe Gangal (Natural Resources Canada)

Effect of in-use DOCs on NO₂ emission in the underground operation, Joe Stachulak (Vale), and Mahe Gangal (CanmetMINING)

SCR retrofit emissions reductions for mining equipment at Sifto Canada, Ivan Luke (Nett Technologies)

Progress on NH₃-SCR catalyst for NO_x reduction applicable to mining diesel engines, G. Caravaggio, M. Stanciulescu, R. Burich, & L. Nossova (CanmetENERGY), and D. Young, B. Rubeli, V. Feres, & M. Gangal (CanmetMINING)

MDEC Plenary Consultation, Mahe Gangal (Co-Chair MDEC Conference)
Summary of comments from MDEC 2012 survey
Review of MDEC 2013
Plans for MDEC 2014
Final remarks

14:30 COFFEE BREAK

15:00 SESSION 8: ROUNDTABLE FORUM

A – Diesel Regulations

- **Engine**
- **Fuel**
- **Air quality**

B – Engine Technology

- **Advanced engines**
- **Maintenance**
- **Monitoring**

16:30 ADJOURNMENT