



**Toronto Airport Marriott Hotel, Ontario, Canada
October 2 – 4, 2012**

MONDAY, OCTOBER 1, 2012

13:00 – 22:30 Field trip (University of Toronto Engine Test Facility & Toronto Blue Jays Baseball at Rogers Centre), bus leaves hotel at 13:00 and returns by 22:30

TUESDAY, OCTOBER 2, 2012

07:30 – 08:30 WORKSHOP REGISTRATION

08:30 – 16:30 WORKSHOP “TIER 4 DIESEL ENGINES AND MAINTENANCE”

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

18:00 – 22:00 EXHIBIT ROOM SET UP

WEDNESDAY, OCTOBER 3, 2012

07:30 REGISTRATION AND BREAKFAST

08:30 CONFERENCE OPENING CEREMONIES:

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

Introduction of Keynote Speaker: Joe Stachulak (*Vale*), Director MDEC

Keynote Address: “Diesel exhaust emissions, health effects and regulations”, Roger O. McClellan, Advisor, Toxicology and Human Health Risk Analysis

Vote of Thanks: David Young (*Natural Resources Canada*), Secretary & Treasurer MDEC

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

10:00 COFFEE BREAK

10:30 SESSION 1: ALTERNATIVE ENERGY
CHAIRPERSON: Joe Stachulak (*Vale*)

Wind-diesel technology advancement, system design and integration, Gregory Price (*Direct Drive Wind Turbines*)

Next generation Fuel Cell Power Modules – performance and reliability with ease of integration for mining applications, Rob Del Core (*Hydrogenics Corporation*)

Hydrogen power applications to mining, Marc Bétournay and Brent Rubeli (*CanmetMINING*)

12:00 LUNCH

13:00 SESSION 2: EMISSION CONTROL TECHNOLOGIES- I
CHAIRPERSON: Evelyn Stirling (Cummins)

Progress toward an operational DPF for heavy duty engines, Joe Stachulak (Vale)

Comparison of diesel particulate filter types used in underground mining, Paul Grylls and Joe Aleixo (DCL International)

Effects of sintered metal filter systems on emissions from light-duty diesel powered underground mining vehicles, Aleksandar D. Bugarski & Steven Mischler (NIOSH) and Jozef Stachulak (Vale)

14:30 COFFEE BREAK

15:00 SESSION 3: MAINTENANCE AND REGULATIONS
CHAIRPERSON: Alain Landry (Xstrata Nickel)

Maintenance based emissions test protocols, Sean McGinn (MKNIZD Factors)

Reducing emissions and fuel consumption enhancing equipment management, Marty Worth (Whayne Supply Company)

Summary of worldwide underground mine diesel regulations, Mahe Gangal (CametMINING)

16:30 ADJOURNMENT

16:30 – 18:30 RECEPTION & NETWORKING

THURSDAY, OCTOBER 4, 2012

07:30 REGISTRATION AND BREAKFAST

08:30 SESSION 4: ALTERNATIVE VEHICLES
CHAIRPERSON: Lisa Barber (DCL International)

Hybrid and battery/electric vehicles for underground mines, Pierre Laliberté and Brent Rubeli (Canmet-MINING)

Considerations when deciding between an electric Loader and a diesel Loader, Mark Ryan and Dale Rakochy (Sandvik Mining and Construction)

The green mining vehicles – Green energy application road map, Marc Bétournay and David Young (CanmetMINING)

10:00 COFFEE BREAK

10:30 SESSION 5: EMISSION CONTROL TECHNOLOGIES- II
CHAIRPERSON: John Stekar (Catalytic Exhaust Products)

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

Determination of DPF passive regeneration temperatures using dynamic engine testing. Blake Keller (AirFlow Catalyst Systems)

Effects of low-NO₂ continuously regenerated trap on aerosol and gaseous emissions from heavy-duty diesel powered underground mining vehicles, Aleksandar Bugarski & Steven Mischler (NIOSH) and Jozef Stachulak (Vale)

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

13:00 SESSION 6: DPM MONITORING
CHAIRPERSON: Mahe Gangal (CanmetMINING)

Monitoring DPM emissions in underground mines – an Australian Perspective, Peter Anyon (PM-Tech, Australia)

Collaborative R and D into effective optimisation of treatment and monitoring for DPM in underground mining in Australia, Colin Chandler (Peak3), Zoran Ristovski & Richard Brown (Queensland University of Technology), Le Jian, Peter Nicholls & Janis Jansz (Curtin University), Patrick Glynn (CSIRO CESARE, Australian Coal Association Research Program)

SESSION 7: Review of 2011 Roundtable Forum & Plenary Consultation

Summary of MDEC 2011 Roundtable Forum

- Advanced engines and fuels, Evelynn Stirling (Cummins)
- Diesel emissions and control technologies, Aleksandar Bugarski (NIOSH)

MDEC Plenary Consultation, Mahe Gangal (Co-Chair MDEC Conference)

Summary of comments from MDEC 2011 survey
Review of MDEC 2012
Plans for MDEC 2013
Final remarks

14:30 COFFEE BREAK

15:00 SESSION 8: ROUNDTABLE FORUM

A - Emissions Based Maintenance,
Facilitator: Sean McGinn (MKNIZD Factors)

B – Green Mining Alternative Energy and Vehicles
Facilitator: Robert Setren (Macs Mining)

16:30 ADJOURNMENT