



Hilton Toronto Airport Hotel, Ontario, Canada  
October 8 – 10, 2019  
(TENTATIVE AGENDA)

SUNDAY, OCTOBER 6<sup>th</sup>, 2019

09:15 Pre-Conference Field Trip Cummins Engine Plant, Jamestown New York, USA; Bus leaves conference hotel at 9:15 for DOUBLETREE by Hilton, Jamestown, and returns on Monday, October 6 by 17:00

MONDAY, OCTOBER 7, 2019

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

18:00 – 22:00 EXHIBIT ROOM SET UP

TUESDAY, OCTOBER 8, 2019

07:30 CONFERENCE REGISTRATION AND BREAKFAST

08:30 SESSION 1: CONFERENCE OPENING CEREMONIES:

**Welcome:** *John Stekar (CEP Ltd.) MDEC President*

**Scholarship:** *Cheryl Allen (Vale), Co-Chair MDEC Conference*

**Introduction of Keynote Speaker:** *Evelynn Stirling (Cummins)*

**Keynote Address:** "Characterization of Emissions from New Technology Diesel Engines", Rashid Shaikh, Ph.D., Director of Science at the Health Effects Institute (HEI)

**Organization:** *David Young (Natural Resources Canada), Co-Chair MDEC Conference*

MDEC Conference: A journey through the last 25 Years, *Bruce Conard, retired (INCO) and Mahe Gangal, Emeritus Scientist (CanmetMINING)*

10:00 COFFEE BREAK

10:30 SESSION 2: Health and Diesel Particulate Matter  
CHAIRPERSON: Joe Stachulak (MIRARCO)

The Air We Breathe: Particle Deposition in the airways, *Sandra Dorman, Director, Centre for Research in Occupational Safety and Health, Professor, School of Human Kinetics, Laurentian University*

Health and safety in mines, *Kevin Chase, TSI*

Considerations for the Establishment of a Corporate Occupational Exposure Limit for DPM, *Robert Stoyanoff (MBA CChem CIH), Senior Industrial Hygienist (Golder Associates Ltd)*

**12:00 LUNCH**

**13:00 SESSION 3: PANEL- Modern Equipment and Maintenance Challenges and Opportunities. Tier 4 final and Stage 5 engines or alternative power, ensuring a cost-effective healthy environment**

**FACILITATOR: J.P. Ouellette (M-K Power Products)**

- *Brian McLean, Mobile Maintenance, (Vale, Canada)*
- *Andreas Mayers, (TTM Technik Thermische Maschinen, Switzerland)*
- *Bapi Surampudi, Ph.D., (Southwest Research Institute (SWRI), San Antonio)*
- *Jay Armburger, (Caterpillar, USA)*

**14:30 COFFEE BREAK**

**15:00 SESSION 4: Diesel Particulate Filter (DPF) Technology**

**CHAIRPERSON: Glen Staskus, (OML)**

Highlight the options to control diesel emissions by controlling secondary emissions in underground vehicles, *Stan Mack (Johnson Matthey)*

Mammoth Diesel Particulate Filter Evaluation, *Cheryl Allen (Vale), and Brent Rubeli, (CanmetMINING)*

Developments in DPF cleaning including ultrasonic technology, *Ralph Deayton (Mammoth)*

**16:30 ADJOURNMENT**

**17:30 – 19:30 RECEPTION & NETWORKING**

**WEDNESDAY, OCTOBER 9, 2019**

**07:30 REGISTRATION AND BREAKFAST**

**08:30 SESSION 5: Standards Development and Safety systems**

**CHAIRPERSON: Kristie Tarr, (Director, CanmetMINING)**

**Keynote Address:** Topic: “Developing Safety Standards for Application of Battery Driven Power Trains”, *Bapi Surampudi, Ph.D., Staff Engineer (SWRI)*

Advanced Safety System for Advanced Battery Technology, *Andre Barriault, and Travis Battley, (Epiroc, Canada)*

**10:00 COFFEE BREAK**

**10:30 SESSION 6: Alternative Energy and Clean Technologies:**

**CHAIRPERSON: Brent Rubeli, (CanmetMINING)**

Innovation for Cleaner Safer Vehicles (ICSV) project which is focused on reducing DPM & GHG, *Jay Armburger (Caterpillar)*

BEV Pioneering Partnership at Borden – Celebrate the wins, face the challenges, *Maarten van Koppen (Newmont Goldcorp) and David Jacques (MacLean Engineering)*

**12:00 LUNCH - Introduction of sponsors and award of draw prizes**

**13:00 SESSION 7: Monitoring and Instrumentation**

**CHAIRPERSON: Keith Birnie (Workplace Safety North)**

Real-Time Assessment of Mining Vehicle In-Out- Cabin particulate matter (PM) concentration,  
*Erkki Lamminen (Dekati)*

Comparison of Particulate and Gaseous Emissions for the DPF Retrofitted Tier 2 and SCR  
Equipped Tier 4f Engines, *Aleksandar Bugarski, Jon Hummer, Shawn Vanderslice, and Teresa  
Barone (NIOSH)*

Impact of three biodiesel blended fuels on exhaust emissions from an internal combustion engine,  
*Brent Rubeli, David Young and Vince Feres (CanmetMINING)*

**14:45 COFFEE BREAK**

**15:00 SESSION 8: Occupational Health & MDEC Plenary Consultation**

**CHAIRPERSON: Cheryl Allen (Vale)**

Summary of worldwide underground mine diesel regulations, *Mahe Gangal, Emeritus Scientist,  
(CanmetMINING)*

Diesel Emissions Reduction, *Kevin Hedges, P.H (Occupational Health Clinics for Ontario Workers  
Inc.)*

Barrick Hemlo's DPM Management Program Update, *Hannah Demers, Industrial Hygienist,  
(Barrick Hemlo)*

**MDEC Plenary Consultation**, David Young (Co-Chair MDEC Conference)

Summary of comments from MDEC 2018 survey

Review of MDEC 2019

Plans for MDEC 2020 and Final remarks

**16:30 ADJOURNMENT**

**THURSDAY, OCTOBER 10, 2018**

**07:30 – 08:00 WORKSHOP REGISTRATION & BREAKFAST**

**08:00 – 16:30 WORKSHOP Diesel Particulate Filter (DPF) Technology and Technology  
Deployment**