



Hilton Toronto Airport Hotel, Ontario, Canada
October 2 – 4, 2018

SUNDAY, SEPTEMBER 30, 2018

09:15 Field Trip to Goldcorp's Borden Mine Project, North Eastern Ontario; vehicle leaves conference hotel at 9:15 for Chapleau, Ontario, and returns on Monday, October 1 by 20:00

MONDAY, OCTOBER 1, 2018

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

18:00 – 22:00 EXHIBIT ROOM SET UP

TUESDAY, OCTOBER 2, 2018

07:30 CONFERENCE REGISTRATION AND BREAKFAST

08:30 SESSION 1: CONFERENCE OPENING CEREMONIES:

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

Scholarship: *J.P. Ouellette (M-K Power Products), Co-Chair MDEC Conference*

Introduction of Keynote Speaker: *Jozef Stachulak (Mirarco)*

Keynote Address: Nanoparticle Emissions from Engines and their Health Effects from the Viewpoint of Engineer, *Professor Jan Czerwinski, Director Laboratories for IC-Engines and Exhaust Emission Control (AFHB) (University of Applied Sciences, Biel-Bienne, Switzerland)*

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

The Canadian occupational burden of cancer project: Results for diesel engine exhaust, *Victoria Arrandale, and Paul Demers, (Medical Science - Occupational Health)*

10:00 COFFEE BREAK

10:30 SESSION 2: PANEL- Developing Innovative Strategies for Improving Safety and Lessening DPM Exposure to Workers in Mines - A Global Focus

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

- *Brian Huff, Chief Technology Officer (Artisan)*
- *Jim Trench, Manager Technical Marketing (BHP Singapore)*
- *Joan Wills, Technical Executive Director (Cummins)*
- *Samantha Espley, Director, Base Metal Technical Centre (Vale)*

12:00 LUNCH

13:00 SESSION 3: ONTARIO MINERS ZERO IN ON INNOVATION
CHAIRPERSON: Philip Bousquet (OMA)

Presentation by winners of the Ontario Mining Association initiatives on Target Zero + and MINED:

- Northern Mined Operations, *Liam Anderson, Anthony Farrugia, and Michael Janakaraj (Laurentian University)*
- A Lasting Impact, *Shivam Sharma (Laurentian University)*
- Better Built Belts, *Curtis Dykstra, James Fortune, Samuel Grant, Ryan Mahon, and Jeff Wright (Queen's University)*

A comparison of approaches for simulating DPM over one hour in underground mines, *Hongbin Zhang, Lorrie Fava, and Ming Cai (Laurentian University, MIRARCO Mining Innovation), Nick Vayenas (Laurentian University), and Enrique Acuña, Escuela de Minas (Universidad del Desarrollo, Santiago, Chile)*

14:30 COFFEE BREAK

15:00 SESSION 4: MONITORING and DIESEL ENGINES
CHAIRPERSON: Brent Rubeli (CanmetMINING)

In-use emissions measurements of off-road diesel engines, *Aaron Conde (Environment Canada)*

Tier 3 final off-road retrofit program - In-use compliance testing, *Paul Grylls, Joe Aleixo, Derek Hooey, and Inderpreet Sran (DCL International Inc.)*

Reducing ventilation rates with hardware and technology solutions for diesel equipment, *Trent Kapene (Caterpillar)*

TBA

16:30 ADJOURNMENT

16:30 – 18:30 RECEPTION & NETWORKING

WEDNESDAY, OCTOBER 3, 2018

07:30 REGISTRATION AND BREAKFAST

08:30 SESSION 5: DIESEL EXHAUST CONTROL
CHAIRPERSON: Evelyynn Stirling (Cummins)

Keynote Address: BHP's commitment to manage diesel exhaust to as low as technically feasible – the science and the possibility, *Dr. Rob McDonald, Vice President Health and Hygiene (BHP Billiton, Melbourne, Australia)*

MSHA Diesel in underground mining, *Jeff Moninger (MSHA)*

10:00 COFFEE BREAK

10:30 SESSION 6: DIESEL PARTICULATE FILTERS
CHAIRPERSON: Glen Staskus, (MOL)

Retrofit DPF Implementation at Goldcorp – Hoyle Pond Mine, Patrick Lessard, Steve Levesque and Lindsay Harvey (Goldcorp)

The promise of an improved work environment and miner safety in underground mines, *Michael Mazzuca (TF Hudgins)*

Controlling diesel particulate matter through filtration, *Ralph Deayton (Mammoth)*

Johnson Matthey diesel particulate filter system, Stan Mack (Johnson Matthey)

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

13:00 SESSION 7: DIESEL VERSUS ELETRIC VEHICLES
CHAIRPERSON: Cheryl Allen (Vale)

Heat Generation in Battery Electric Underground Haul Trucks, Brian Huff (CTO, Artisan Vehicle Systems Inc.)

Economic benefits for using electric and low emission vehicles in a ventilation-on-demand system, *Gary Li, (CanmentMINING)*

Underground mining, *Jay D. Armburger (Caterpillar)*

Impact of Fast Charging on NCA cells, Bapi Surampudi (Southwest Research Institute)

14:45 COFFEE BREAK

15:00 SESSION 8: OCCUPATIONAL HEALTH & MDEC PLENARY CONSULTATION
Facilitator: David Young (CanmetMINING)

The Ontario provincial occupational disease action plan (ODAP), *Kevin Hedges, (Occupational Health Clinics for Ontario Workers Inc.)*

2018 Consultation on proposed changes affecting the protection of workers from exposures to hazardous biological or chemical agents under the occupational health and safety act, *Glen Staskus (Ontario Ministry of Labour)*

Exposure of miners to elemental carbon in underground mines in the United States, *Aleksandar Bugarski (NIOSH)*

MDEC Plenary Consultation, David Young (Co-Chair MDEC Conference)
Summary of comments from MDEC 2017 survey
Review of MDEC 2018
Plans for MDEC 2019 and Final remarks

16:30 ADJOURNMENT

THURSDAY, OCTOBER 4, 2018

07:30 – 08:00 WORKSHOP REGISTRATION & BREAKFAST

08:00 – 12:15 WORKSHOP “BATTERY TECHNOLOGY – LITHIUM ION CELLS”

13:15 – 16:30 WORKSHOP “DIESEL ENGINE TECHNOLOGY AND DPF STRATEGIES & GUILDLINES”