



Four Points Sheraton, Toronto, Ontario,  
Canada October 6th – 9th, 2025

**SUNDAY, OCTOBER 5, 2025**

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

**17:00 – 20:00 EXHIBIT ROOM SET UP**

**MONDAY, OCTOBER 6, 2025**

**07:00 CONFERENCE REGISTRATION AND BREAKFAST**

**08:30 SESSION 1: CONFERENCE OPENING CEREMONIES:**

**Welcome:** *MDEC President Cheryl Allen (Vale)*

**Organization:** *Co-Chair MVPC Brent Rubeli (CanmetMINING)*

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

**Keynote Address:** *S1P1 Keynote, “The Future of Heavy-Duty Diesel Engines: Must we Achieve Zero Tailpipe Emissions?”. Imad Khalek – Southwest Research Institute*

**Scholarship:** *MDEC Management committee Jozef Stachulak (MIRARCO)*

*Student Presentation – Award*

**10:00 COFFEE BREAK**

**10:30 SESSION 2: CSA M424 Mining Standards Review:**

**CHAIRPERSON:** *Kyle Watson (MLISTD)*

*Presentation S2P1 – CSA M424 Mining Mobile Equipment / M421 Electricity in Mines Standards Review – Vaishnavi Somasundaram (CSA Group)*

*Presentation S2P2 – M424.4 Electric Machines Revision Update – John Le (CanmetMINING)*

*Presentation S2P3 – M424.3 Braking Performance Revision Update - Gaurav Mahajan (CanmetMINING)*

**12:00 LUNCH**

**13:00 SESSION 3 : Diesel Emission Control Technologies I****CHAIRPERSON:** Kathy Downs (OMA)

Presentation S3P1 – Sintered Metal Filter for DPM and NO<sub>2</sub> control: Field Trial with Diesel Boom Truck – Michael Mazzuca (Allied Reliability)

Presentation S3P2 – Development, Optimization and Long-term Evaluation of DPF Systems for the Underground Mining Industry – Jozef Stachulak (MIRARCO)

Presentation S3P3 – DPFi Technology Applications – Ginette Anderson (MineTerra)

**14:30 COFFEE BREAK****15:00 SESSION 4: Battery Electric Powertrain Technology****CHAIRPERSON:** Cheryl Allen (Vale)

Presentation S4P1 – BEVs Where They Work Where They Don't. – Sanket Patel (Vale)

Presentation S4P2 – HudBay Mining BEV Field Study – John Le (CanmetMINING)

Presentation S4P3 – Current BEV/EV Projects at the Cambrian College / Vale Electric Vehicle Lab – Paul Wigmore (Cambrian)

**16:30 ADJOURNMENT****17:00 – 19:00 RECEPTION & NETWORKING****TUESDAY, OCTOBER 7, 2025****07:00 REGISTRATION AND BREAKFAST****08:30 SESSION 5: Topics in Mining Machine Design****CHAIRPERSON:** Jozef Stachulak (MIRARCO)

Presentation S5P1 – Battery Degradation Modelling for Mining BEVs. – Zhenhuan Xu (CanmetMINING)

Presentation S5P2 – Centrifugal Separation of Fine Particulate Matter from Diesel Engine Oil – Michael Mazzuca (Allied Reliability)

Presentation S5P3 – Horizon AeroSolfd project / VERT GPF retrofit and NPTI - Laretta Rubino (VERT)

**10:00 COFFEE BREAK****10:30 SESSION 6: Mine Ventilation for Diesel Equipment****CHAIRPERSON:** Kyle Watson (MLISTD)

Presentation S6P - Impact of Ontario's amendment of airflow rate for diesel equipment used underground on ventilation system design of greenfield project - P.A Gomez (CGM Expert)

Presentation S6P2 – Implementation of CANMET Ventilation Rates – Raphael Tiangco (Vale)

Presentation S6P3 – Ultra Low NOx Emissions Control – Mansour Massoudi (Emissol)

**12:00 LUNCH – Introduction of sponsors and awarding of door prizes**

**13:00 SESSION 7: Occupational Health and Safety Research**  
**CHAIRPERSON:** Kristie Tarr (CanmetMINING)

Presentation S7P1 – Occupational Health and Safety Related to Particle Exposure – Andre Gauvin (OHCOW)

Presentation S7P2 – Filtration of Fine Particle Exhaust Emissions from Various Diesel Fuel Types – Ginette Anderson (MineTerra)

Presentation S7P3 – Application of Particle Count Filtration Efficiency (PCFE) as defined by SN 277206 to Diesel Exhaust Measurement – F. Pelletier (Allied Reliability)

**14:30 COFFEE BREAK**

**15:00 SESSION 8: Diesel Emission Control Technologies II**  
**CHAIRPERSON:** Ginette Anderson

Presentation S8P1 – Diesel Emissions Underground: What Really Matters? – Ralph Deayton (Mammoth)

Presentation S8P2 – DPM Management with Realtime Monitoring – Chad Methe (Accutron)

Presentation S8P3 – Field-Proven DPF Solutions for the Toyota LandCruiser in Underground Mining -- Hayden Kirk (ALETEK)

**16:30 MDEC Plenary Consultation, Co-Chair MVPC Brent Rubeli (CanmetMINING)**  
 Summary of comments from MDEC 2024 survey  
 Review of MDEC 2025  
 Plans for MDEC 2026 and Final Remarks

**17:00 ADJOURNMENT**

**WEDNESDAY, OCTOBER 8, 2025**

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

**08:00 – 16:30 WORKSHOP: CURRENT AND FUTURE FUELS FOR MINING: DIESEL, ELECTRICITY, AND HYDROGEN**

Presentation WP1 – Hydrogen Fuel for Mining Applications – Kristie Tarr (CanmetMINING)

Presentation WP2 – Enabling Low-Cost On-Site Hydrogen Production with Advanced AEM Electrodes. – Steve Baranton (DCL International Inc.)

**10:00 COFFEE BREAK**

Presentation WP3 – BEV duty cycle energy consumption simulation to assess charging power needs over the shift – Enrique Acuña (CanmetMINING)

Presentation WP4 – Small Modular Reactors for Industrial Applications - Travis Pettigrew (Canadian Nuclear Laboratories)

**12:00 LUNCH**

**13:00 WORKSHOP: CURRENT AND FUTURE FUELS FOR MINING: DIESEL, ELECTRICITY, AND HYDROGEN (Cont.)**

Presentation WP5 – Mining Diesel Fuel Properties and Applications – Brent Rubeli (CanmetMINING)

Presentation WP6 – Diesel Fuel Additives – Brent Rubeli (CanmetMINING)

**14:30 ADJOURNMENT**