



Hilton Toronto Airport Hotel, Ontario, Canada  
October 3-5, 2023

**MONDAY, OCTOBER 2, 2023**

**17:00 - 19:00 CONFERENCE & WORKSHOP PRE-REGISTRATION & NETWORKING**  
**18:00 – 22:00 EXHIBIT ROOM SET UP**

**TUESDAY, OCTOBER 3, 2023**

**07:30 CONFERENCE REGISTRATION AND BREAKFAST**

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

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

**Scholarship:** *Co-Chair MDEC Conference – Brent Rubeli*

**Introduction of Keynote Speaker:** *J. Stachulak (MIRARCO)*

**Keynote Address:** S1P1 Keynote, Colin Pegues – General Manager Copper Cliff Mine Complex (Vale)

**Organization:** *MDEC Conference Brent Rubeli*

**10:00 COFFEE BREAK**

**10:30 SESSION 2: Mine Regulation and Occupational Exposure to Diesel Exhaust**  
**CHAIRPERSON: Cheryl Allen (Vale)**

Presentation S2P1 – Ontario Reg. 854 Amendments – K. Watson, B. Hanulik (MLITSD)

Presentation S2P2 – Reduction of Diesel Emissions as part of an overall Airborne Hazard Management Program – K. Hedges (OHCOW)

Presentation S2P3 - Evaluating the Healthcare and Economic Burden of High Diesel Particulate Matter Occupational Exposure Limits – M. Wickie (Laurentian)

**12:00 LUNCH****13:00 SESSION 3: Diesel Emission Control Technologies**  
**CHAIRPERSON: Joe Stachulak (Mirarco)**

Presentation S3P1 – DPM Reduction Journey – Ralph Deayton (Mammoth)

Presentation S3P2 – Navigating Through Retrofits And Upgrading For Lower Emissions – Mike Mazzuca (TF Hudgins)

Presentation S3P3 – Implementation of the Mining CRT – G. Anderson (MineTerra)

**14:30 COFFEE BREAK****15:00 SESSION 4: Battery Electric Powertrain Technology**  
**CHAIRPERSON: Ginette Anderson, (MineTerra)**

Presentation S4P1 – BEV Design for Reduced Operating Costs and Improved Reliability – Haley Blinn (Sandvik)

Presentation S4P2 – BEV and Diesel Utility Vehicles Performance Benchmark– John Le (CanmetMINING)

Presentation S4P3 – Effects of Environmental Conditions on Mine Utility Vehicle and Rubber-tired Mantrip Lithium-ion Batteries – D. Yantek (NIOSH)

**16:30 ADJOURNMENT****17:30 – 19:30 RECEPTION & NETWORKING****WEDNESDAY, OCTOBER 4, 2023****07:30 REGISTRATION AND BREAKFAST****08:30 SESSION 5: Topics in Mining Machine Design**  
**CHAIRPERSON: Philip Bousquet, (OMA)**

Presentation S5P1 – Review of Global Mining Machine Braking Standards and Development of the CSA M424.3 Braking Standard – Gaurav Mahajan (CanmetMINING)

Presentation S5P2 – Mine Electrification Research: Goldex Railveyor Study – E. Acuña-Duhart (CanmetMINING)

Presentation S5P3 – Diesel Oxidation Catalyst Design and Selection for Underground Mining – B. Rubeli (CanmetMINING)

**10:00 COFFEE BREAK****10:30 SESSION 6: Alternative Fuel and Energy Technologies:**  
**CHAIRPERSON: Kyle Watson, (MLISTD)**

Presentation S6P1 – Deutz TCD7.8 H2 Hydrogen Engine – C. Tissera (Deutz)

Presentation S6P2 – NRCan Hydrogen Roadmap Update – P. Nekoovaght (CMIN)

Presentation S6P3 – Hydrogen Fuel Cell Mobility – Ryan Sookhoo (Accelera)

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

**13:00 SESSION 7: Battery Electric Powertrain Technology II  
(CHAIRPERSON: Brent Rubeli (CanmetMINING))**

Presentation S7P1 - Battery Electric Vehicle trial at an underground Copper project – A. McCarthy (Rio Tinto)

Presentation S7P2 – Vale’s Journey to Green Energy Vehicles - S. Patel (Vale)

Presentation S7P3 – TBD

**14:45 COFFEE BREAK**

**15:00 SESSION 8: Round Table Session on CSA M424.3 Standard  
CHAIRPERSON: Gaurav Mahajan (CanmetMINING)**

Delegates are welcome to participate in an informal breakout discussion to inform the development of the CSA M424.3 Braking System standard.

**MDEC Plenary Consultation**, Brent Rubeli (Co-Chair MDEC Conference)

Summary of comments from MDEC 2022 survey

Review of MDEC/MVPC 2023

Plans for MVPC 2024 and Final remarks

**16:30 ADJOURNMENT**

**THURSDAY, OCTOBER 5, 2023**

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

**08:00 – 16:30 WORKSHOP: Ontario Regulation 854: Review and Guidance  
CHAIRPERSON: Brent Rubeli (CanmetMINING)**

Presentation WP1 – Review of Ontario Regulation 854 and Guidance – K. Watson (MLTSD)

**10:00 COFFEE BREAK**

Presentation WP2 – Engine Certification to the CSA M424.1 and M424.2 – B. Rubeli (CanmetMINING)

Presentation WP3 – Diesel Particulate Journey – Vale Base Metals – C. Allen (Vale)

**12:00 LUNCH**

Presentation WP4 – Field Performance Evaluation of Diesel Emissions Control Devices (review and a hands-on training session) – Sean McGinn (MKNIZD)