



Stakeholders

Members

Association of Chief Mine Inspectors
Barrick Gold Corporation
Cambior Inc.
Canadian Auto Workers
[CAMIRO](#) - Canadian Mining Ind. Research Org.
Falconbridge Limited
Hudson Bay Mining & Smelting
IMC Kalium
INCO Ltd.
Natural Resources Canada
New Brunswick Workers Health and Safety Compensation Commission (WHSCC)
Noranda Mining & Exploration
Ontario Soybean Growers Marketing Board
Saskatchewan Canola Dev. Commission
South Dakota Soybean Promotion Committee
Toronto Transit Commission
United Steelworkers of America

Contributors

Engine Controls Systems (ECS)
Manitoba Labour
Manufacturers of Emission Controls Association (MECA)
Morton Int'l - Canadian Salt
New Brunswick Workers Health and Safety Compensation Commission (WHSCC)
Ontario's Workplace Safety and Insurance Board (WSIB)
Placer Dome Canada Limited
Williams Operating Corporation

Associated Organizations

Australian Joint Coal Board
Diesel Engine Manufacturers
Institut fur Gefahrstoff-Forschung der Bergbau-Berufsgenossenschaft (IGF)
[Mining Diesel Emissions Conference](#)
National Institute of Occupational Safety & Health (NIOSH)
ORTECH
University of Minnesota
VERT

Program Organization

The DEEP Management Board (MB) consists of representatives for each member. It is responsible for the overall management of the program including financial and legal matters. Reporting to the MB is the Technical Committee (TC), appointed by the MB and consisting of member representatives, and other stakeholders with an interest in DEEP, and other technical consultants. The TC provides project planning, project execution, and technical advice to the MB.

DEEP Organization

Position	Period	Incumbent	Affiliation
Management Board Chairperson	1997 - 2002	Bruce Conard	INCO
Technical Committee Chairperson	1997 - 1998	Heather Langfeld	Falconbridge
	1998 - 2000	Gary Allen	Hudson Bay Mining & Smelting
	2000 - 2002	Michel Grenier	CANMET
Secretary	1997 - 2000	Bill Howell	CANMET
	2000 - 2002	Charles Graham	CAMIRO
Treasurer	1997 - 2002	Charles Graham	CAMIRO

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Also Available

The official [Program Description](#) with more information on DEEP background and objectives
DEEP [Memorandum of Understanding](#)
[Inaugural Newsletter](#) issued in March 1998

Goals and Objectives

The goal of DEEP is to reduce miners' exposure to diesel exhaust pollutants by systematically testing and evaluating control strategies to reduce diesel emissions at specific mine sites. Specific objectives include:

- Implementation and evaluation of comprehensive emission control strategies to reduce diesel emissions with particular attention to DPM concentrations to determine efficiency, technical feasibility, and costs;
- Evaluation of diesel exhaust and oil mist aerosol measurement methodologies to determine benefits/limitations of each;
- Measurement of DPM and diesel gaseous pollutants; and
- Laboratory evaluation of promising, but untested, emission control methods to determine their safety, feasibility, and effectiveness.

Background

The Canadian ad hoc Diesel Committee met in Markham, Ontario, on March 26-27, 1996 to discuss issues pertaining to diesel exhaust exposure and control in mining. The major topic of discussion at this meeting, and three Diesel Workshops sponsored by the U.S. Mine Safety and Health Administration (MSHA) in the Fall of 1995, was the addition by the American Conference of Governmental Industrial Hygienists (ACGIH) of diesel particulate matter (DPM) and oil mist to the Notice of Intended changes for 1995-1996. For the first time the ACGIH proposed, after reviewing available animal and human health studies, a threshold limit value (TLV) of 0.15 mg/m³ for DPM and a reduction to 0.2 mg/m³ for some oil mists. If these values are adopted as permissible exposure limits, many mines in Canada and the U.S. would have difficulty meeting this limit at all times.

The ad hoc Diesel Committee agreed that the goal of reducing exposure to diesel emissions was best accomplished by collaboration of the several sectors having a stake in reducing exposure. These sectors include mine operators, labour, regulators, fuel and additive producers, equipment (machine, engine, and exhaust emission controls) manufacturers, and Canadian and U.S. research agencies. The committee further endorsed the concept of a North American consortium to conduct diesel research and appointed a Steering Committee to guide the formation of the consortium and to specify objectives of DEEP.

Peer Reviewers

We extend special thanks to the peer reviewers who have taken the time to constructively criticize our projects.

Dr. Mridul Gautam (West Virginia University)
Andreas Mayer (VERT - TTM)
Dr. James Vincent (University of Michigan)
Dr. Susan Woskie (U of Massachusetts Lowell)
Ken Gavel (Noranda BMS, Bathurst NB)
Dr. Mahe Gangal (NRCAN CANMET, Ottawa ON)
Tom Thomb (MSHA, Pittsburgh PA)
George Dvorznak (MSHA, Pittsburgh PA)
Ray Ellington (Morton Internat'l, Chicago IL)
Dr. John Johnson (Michigan Tech University)
Dr. Ken Westaway (Laurentian Univ., Sudbury ON)
John Baxter (Kubota, Markham ON)
Dr. Heinrich Sönksen (Kali und Salz, Kassel Germany)
Dr. Dirk Dahmann (IGF, Bochum Germany)
Cheryl Allen (Hudson Bay Mining & Smelting)
Tony Fontana (Falconbridge Kidd Creek, Timmins ON)
Gil Babin (Falconbridge Kidd Creek, Timmins ON)
Greg Rideout (Environment Canada, Ottawa ON)
Brian Davies (Australian Joint Coal Board)

