



Safety and Health Aspects of Using Diesel-Powered Equipment in Underground Coal Mines

Free Workshop

Presented in partnership with the West Virginia Diesel Equipment Commission

Three Locations • All workshops run from 8AM to 4PM

September 5, 2012 • Charleston Civic Center, Charleston, WV

October 23, 2012 • Waterfront Place Hotel, Morgantown, WV

January 23, 2013 • Holiday Inn Hotel & Suites, Beckley, WV

The National Institute for Occupational Safety and Health's Office of Mine Safety and Health Research, in partnership with the West Virginia Diesel Equipment Commission (WVDEC), will host a free workshop to discuss issues related to safety and health aspects of using diesel-powered equipment in underground coal mines.

The workshop is intended for mine safety professionals involved in assessing, controlling, and monitoring the use of diesel-powered equipment. The workshop will provide attendees with information on the integrated approach toward addressing this important safety and health issue.

The use of diesel-powered equipment to support operations in the underground coal mining industry has grown in recent years. Although this approach can provide a number of safety benefits, such as the elimination of trolley wire and trailing cables, it also presents a number of challenges. The use of prescribed ventilation, proper diesel equipment maintenance, and available exhaust after-treatment devices can substantially reduce the exposure of workers to diesel particulate matter and noxious gasses. The implementation of diesel equipment also influences various aspects of a mine's design and operation. In order to maximize the benefits of this technology and minimize the adverse effects, the details of its impact must be well understood.

For more details on the topics covered by this workshop, please see the attached agenda. For more information please contact Aleksandar Bugarski of NIOSH at abugarski@cdc.gov or (412) 386-5912 or Pramod Thakur of CONSOL Energy at PramodThakur@consolenergy.com or (304) 983-3201.

Registration is required to attend the workshop. Coffee, refreshments and lunch will be provided by the West Virginia Diesel Equipment Commission (WVDEC). Parking is complimentary. To register, please contact **Karen Altares, NIOSH/OMSHR by email at KAltares@cdc.gov, or phone at (412) 386-5314. Please indicate the date and location of the workshop.**



www.cdc.gov/NIOSH/Mining



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AGENDA

1. Welcome (8:00am)

Chris Hamilton, West Virginia Coal Association

2. Introduction (8:10–9:10am)

- Diesel-powered equipment in underground coal mines in West Virginia and the U.S.
Jimmy Brock, CONSOL Energy
- MSHA regulations pertinent to use of diesel-powered equipment in underground coal mines
Gregory Nestor, MSHA (Mine Safety and Health Administration)
- West Virginia and Pennsylvania regulations pertinent to the use of diesel equipment in underground coal mines
TBA, WV Office of Miners' Health, Safety and Training

3. Safety aspects of using diesel-powered equipment in underground coal mines (9:10–9:40am)

- Safety requirements for permissible and non-permissible diesel-powered equipment
Randy Bell, WV Office of Miners' Health, Safety and Training

Coffee Break (9:40–10:20am)

4. Health aspects of using diesel-powered equipment in underground coal mines (10:20–11:30am)

- Aerosols and gases emitted by diesel engines
Aleksandar Bugarski, NIOSH
- Integrated approach toward reducing exposure of underground miners to aerosols and gases emitted by diesel engines
Larry Patts, NIOSH
- Monitoring exposure to aerosols and gases
Aleksandar Bugarski, NIOSH

Lunch Break 11:30am–12:30pm

5. Control of diesel emissions (12:30–2:00pm)

- Approval of diesel engines used in underground coal mines and adequate ventilation to dilute the diesel exhaust to safe levels
Jeffrey Moninger, MSHA
- Exhaust aftertreatment technologies
Aleksandar Bugarski, NIOSH
- Contemporary diesel engine technologies and new fuels
TBA, Deutz

6. Diesel equipment development and emissions assisted maintenance (EAM) (2:00–2:40pm)

- Development of diesel equipment for in-mine use
Cameron Miller, Brookville Services LLC, and Jamie Mossman, Brookville Equipment Corporation
- Emission assisted equipment maintenance in coal mines
Steve "Skinner" Forbush, Arch Coal

Coffee Break (2:40–3:00pm)

7. Conclusions (3:00–4:00pm)

- Relevance of diesel engines in West Virginia coal mines
TBA, United Mine Workers of America
- The role of WV Diesel Equipment Commission in regulating diesel equipment in mines
Pramod Thakur, CONSOL Energy

The workshop attendees will be provided with a hard copy of NIOSH Report of Investigation: Bugarski A.D., Janisko S., Cauda E.G., Noll J.D., Mischler S.E. [2011]. *Diesel Aerosols and Gases in Underground Mines: Guide to Exposure Assessment and Control*. NIOSH RI9687 Pub No. 2012-101.



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