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PROGRAM INFORMATION BULLETIN NO. P07-29

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SUBJECT: Breaching and Drilling into Sealed Areas

Who needs this information?

This bulletin applies to underground coal mine operators, miners' representatives, independent contractors, Coal Mine Safety and Health (CMS&H) enforcement personnel.

What is the purpose of this PIB?

This Program Information Bulletin (PIB) informs the mining industry about potential hazards when breaching seals and when drilling into sealed areas of a coal mine.

What is the background for this PIB?

An Emergency Temporary Standard (ETS) was issued on May 22, 2007, on the sealing of abandoned areas. This new regulation requires that areas sealed prior to the issuance of the ETS be monitored and the atmosphere in the sealed area maintained inert. Some operators may choose to breach existing seals and re-ventilate sealed areas rather than monitor and inert. The breaching of seals is a potentially hazardous undertaking that may expose the miners to explosive or irrespirable atmospheres.

Although most sealed areas will be monitored using the sampling pipes installed in the seals, certain conditions may require boreholes to be drilled from the surface into the sealed areas.

Information

MSHA will work with operators to help them breach or drill into sealed areas in a manner that will protect the miners from this significant hazard. Mine operators must submit a revised ventilation plan and obtain approval from the District Manager prior to implementing any breaching or drilling plan that will penetrate sealed areas.

Hazards involved in a seal breaching operation are similar to those encountered when mining into an inaccessible area. A seal breaching plan should address the requirements of 30 CFR § 75.389. A seal breaching plan will also show how the area will be re-ventilated. Additional considerations would include the use of non-sparking tools and coverage by mine rescue personnel wearing an apparatus.

Significant hazards are also involved when drilling into a sealed area. Drilling tools may ignite explosive mixtures of methane through frictional heating and sparks triggered by roof falls when the bit penetrates the roof. A plan to drill into a sealed area should include the proposed hole locations, hole diameters, a description of casings and tubing that will be installed in the holes, method of drilling (rotary, percussion, diamond, etc.), drilling fluids (water, mud, air, nitrogen foam, etc.), and wellhead protections. To minimize lightning conduction problems, non-metallic casing and tubing is recommended for vertical holes. Persons not involved in the drilling operation shall not be permitted in the mine when the drill bit is within 50 feet of the mine opening when drilling vertically, and within 20 feet for horizontal or directional holes. If drilling is done from within the mine, additional issues such as permissibility of drilling equipment, methane monitoring of the drilling process, disposal of drill cuttings, and communication to the surface must be included in the plan.

What is MSHA's authority for this PIB?

The Federal Mine Safety and Health Act of 1977, as amended and 30 CFR 75.335, 75.370, and 75.371.

Where is this PIB on the Internet?

This information may be viewed on the World Wide Web by accessing MSHA's home page www.msha.gov , then choosing "Compliance Info" and "Program Information Bulletins."

Who are the MSHA contact persons for this PIB?

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Who will receive this PIB?

MSHA PPM Holders
Underground Bituminous Coal Operators
Miners' Representatives
Independent Contractors