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PROGRAM INFORMATION BULLETIN NO. P09-13

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SUBJECT: Re-Issue P04-06 - Hazards Associated with Surface Mines Intersecting Abandoned or Underground Workings

Scope
This Program Information Bulletin (PIB) applies to surface coal mine operators, miners' representatives, Mine Safety and Health Administration (MSHA) enforcement personnel, and other interested parties.

Purpose
The purpose of this bulletin is to inform the mining community about the hazards associated with oxygen deficiency and methane accumulation in pit areas following intersection with underground mine workings. In addition, this PIB re-emphasizes the requirements of Title 30 Code of Federal Regulations (30 C.F.R.) § 77.1713 and 30 C.F.R. § 77.1200.

Background
On June 18, 2003, an inundation of gas occurred at a surface coal mine. An MSHA inspector arrived to conduct an inspection. Finding no miners in the general area, the inspector drove into the pit (active working area) where his vehicle stalled and could not be re-started. When the inspector exited the vehicle, he became light headed and experienced tightness in his chest. The inspector began walking out of the pit area, and as he traveled along the access road, the light headed feeling and tightening in his chest diminished. The inspector phoned the field office supervisor who immediately dispatched another inspector to the site. An investigation of the area was conducted using gas detection equipment. It was determined that low oxygen was present in the pit with oxygen readings as low as 9.3 percent. The low oxygen resulted from the surface mine's intersection with the openings of an abandoned underground mine.

There can be a risk of rapid release and inundation of dangerous mine gases when surface coal mine operators intentionally or unintentionally intersect abandoned or active underground workings. Such a rapid release of dangerous mine gases can harm a miner in the surface working area. While the experience of the gas inundation referenced above is rare, it illustrates the need to follow the daily examination requirement of section 77.1713 and test for oxygen deficiency and methane following an intersection with underground workings. It further demonstrates the importance of maintaining a current and up-to-date mine map.

Information
Section 77.1713(a) states that:

> "At least once during each working shift, or more often if necessary for safety, each active working area and each active surface installation shall be examined by a certified person designated by the operator to conduct such examinations for hazardous conditions and any hazardous conditions noted during such examinations shall be reported to the operator and shall be corrected by the operator."

Surface coal mine operators often intentionally, and sometimes unintentionally, mine areas proximate to underground workings where there is a risk of intersecting such underground workings of abandoned or worked out mines. When such intersections occur, there is a substantial risk that "bad air", i.e., methane and other dangerous mine gases will escape from the underground workings and create a hazardous condition for miners working at the surface mine.

Therefore, surface operators should test for oxygen deficiency and methane following an intersection with abandoned or worked out underground workings. The potential release and inundation of dangerous mine gases following such an intersection constitutes the kind of hazardous condition that would require mine operators to conduct additional examinations as required by the standard. Surface coal mine operators should be prepared to test for oxygen deficiency and the presence of other dangerous mine gases when an intersection with underground workings occurs.

Surface coal mine operators can also anticipate an intersection with underground workings by using the mine map information gathered under 30 C.F.R. § 77.1200. This standard states, in part, that:

"The operator shall maintain an accurate and up-to-date map of the mine, on a scale of not less than 100 nor more than 500 feet to the inch, at or near the mine, in an area chosen by the mine operator, with a duplicate copy on file at a separate and distinct location, to minimize the danger of destruction by fire or other hazard. The map shall show:

(i) All worked out and abandoned areas;

(k) Underground mine workings underlying and within 1,000 feet of the active areas of the mine."

The mine map must be available for inspection by the authorized representative.

Authority
The Federal Mine Safety and Health Act of 1977 and 30 C.F.R. § 77.1713 and § 77.1200.

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Internet Availability
This information bulletin may be viewed on the MSHA Website.

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