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PROGRAM POLICY LETTER NO. P07-V-01

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SUBJECT: Methane Tests for Welding, Soldering or Cutting With Arc or Flame
Underground

Scope

Coal mine operators, miners and miners' representatives, Mine Safety and Health Administration (MSHA) enforcement personnel, and other interested parties should have this information.

Purpose

This Program Policy Letter clarifies MSHA policy (Program Policy Manual, vol. V, 75.1106) concerning the methane testing requirements of Section 75.1106, Title 30 of the Code of Federal Regulations (CFR), applicable to welding, cutting, and soldering activities with arc or flame in underground areas of a coal mine.

Policy

Welding, cutting, and soldering in an underground coal mine are inherently dangerous activities due to the presence of potentially explosive methane, explosive coal dusts and combustible coal. Open flames, molten metal, and sparks resulting from such activities may present an ignition source underground. Consequently, MSHA requires under § 75.1106 that the following safety precautions be taken when any welding, cutting or soldering with arc or flame is conducted underground in other than a fireproof enclosure:

- Welding, cutting or soldering must be done under the supervision of a qualified person;

- The qualified person must conduct a diligent search for fire during and after any welding, cutting or soldering activity;
- The qualified person also must continuously test for methane immediately before and during any welding, cutting, or soldering activity;
- Any welding, cutting or soldering shall not be conducted in air that contains 1.0 percent or more of methane; and
- Rock dust or suitable fire extinguishers shall be immediately available during any welding, cutting or soldering activity.

While § 75.323(a) specifies that tests for methane concentrations must be made at least 12 inches from the roof, face, ribs and floor, this distance requirement is not applicable to welding, cutting or soldering activities performed under § 75.1106. MSHA's policy on § 75.1106 clearly states that methane tests conducted under this section must be made in locations where methane is likely to exist, and in no case is cutting, welding or soldering permitted in an atmosphere that contains 1.0 percent or more of methane. Since the face, roof, ribs, floors and any fully or partially enclosed areas of an underground coal mine are locations where methane is likely to exist, methane tests must also be made at or near the surface of these areas (not 12 inches away) and within any fully or partially enclosed areas that may be exposed to the aforementioned ignition sources. Welding, cutting or soldering activities are prohibited if any methane levels are 1.0 percent or greater within the affected areas. Additional, or spot, ventilation may be used to reduce these methane levels. MSHA recommends that probes for methane detectors be used for some of these measurements.

Background

Questions have been raised concerning the application of MSHA's policy on methane testing under § 75.1106, Welding, Cutting, or Soldering with Arc or Flame Underground, and the "12-inch minimum distance requirement" for methane testing under § 75.323(a), Actions for Excessive Methane. This program policy letter is being issued to address any confusion that may have resulted in enforcement inconsistencies regarding the application of the methane testing requirements of § 75.1106 and § 75.323(a) to welding, cutting, or soldering activities underground.

Authority

The Federal Mine Safety and Health Act of 1977, as amended, 30 U.S.C. § 801 et seq.; 30 C.F.R. § 75.323(a) and 30 C.F.R. § 75.1106.

Internet Availability

This program policy letter may be viewed on the World Wide Web by accessing the MSHA home page <http://www.msha.gov> and by choosing "Compliance Info" and "

Program Policy Letters.”

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