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SUBJECT: Best Practices for Turning Crosscuts with Remote Controlled Continuous Mining Machines

Scope

This Program Information Bulletin (PIB) applies to 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 of several best practices that can be followed when remote controlled continuous mining machines are used to turn crosscuts. These best practices could help reduce the number of roof fall accidents associated with the mining of crosscuts using these machines.

Background

Nine fatal roof fall accidents involving remote controlled continuous mining machine operators and helpers have occurred since January 1, 2001. A review of these accidents reveals that three occurred while a crosscut was being turned and a fourth occurred while mining was being conducted adjacent to a crosscut. In all four accidents, improper operator positioning was a contributing factor. In three of these accidents the victim was located under unsupported roof. In the fourth accident the victim was located in a "no work/travel zone" as defined in that mine's roof control plan.

The importance of proper operator positioning when remote controlled continuous mining machines are used has long been recognized. However, the recent fatal accidents indicate that increased safety awareness is needed by these machine operators when turning crosscuts. Factors such as visibility, dust, equipment crowding, location of ventilation devices and trailing cables also complicate the issue of proper operator positioning while crosscuts are being turned. From underground observations in numerous mines, MSHA has identified six currently-used best practices which can help to minimize the hazards encountered when crosscuts are turned with remote controlled continuous mining machines.

Information

The following best practices have been identified as having the potential to reduce the number of roof fall accidents when crosscuts are turned with remote controlled continuous mining machines:

1. Use a notch or niche cut. A notch or niche cut is a shallow, triangular-shaped, initial cut (a single miner head in width) taken when turning a crosscut. The notch or niche cut is bolted to provide a buffer between the continuous miner operator and unsupported roof created as the remainder of the crosscut is mined.
2. Limit the depth of the first cut when turning a crosscut.
3. Allow the remote controlled continuous miner operator to be positioned up the straight on the inby side of the intersection.
4. Limit the number of "turned crosscuts", thereby mining most of the crosscuts "head-on".
5. Install additional roof support at the continuous mining machine operator's projected work location.
6. Use visual indicators, such as reflective markers, to designate a no work/travel zone commonly referred to as a "Red Zone".

Additional information regarding each of these Best Practices may be found at <http://www.msha.gov/REGS/COMPLIAN/PIB/2003/PIB03-28-attach.pdf>

Authority

The Federal Mine Safety and Health Act of 1977, Section 103(a).

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Internet Availability

This information bulletin may be viewed on the Internet by accessing

<http://www.msha.gov/REGS/COMPLIAN/PIB/PIB2003.HTM>

Distribution

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