Who needs this information?
Underground coal mine operators, miners' representatives, independent contractors, manufacturers, Coal Mine Safety and Health (CMS&H) enforcement personnel, Technical Support personnel and other interested parties should have this information.

What is the purpose of this bulletin?
The purpose of this Program Information Bulletin (PIB) is to advise the underground coal mining community that the National Institute for Occupational Safety and Health (NIOSH) recently published a report on the Coal Dust Explosibility Meter (CDEM). This PIB also informs them of the need to measure coal mine dusts (mixtures of coal dust, float coal dust and rock dust) to determine potential explosibility.

Information
NIOSH’s “Coal Dust Explosibility Meter Evaluation and Recommendations for Application” publication (Information Circular (IC) 9529) details their investigation into the performance of the CDEM to accurately predict the explosibility of mine dust samples collected from U.S. underground coal mines. The IC summary states that:

The CDEM, which gives instantaneous results in real time, represents a new way for miners and operators to assess the relative hazard of dust accumulations in their mines and the effectiveness of their rock dusting practices. The intention of the device is to assist mine operators in complying with the Mine Safety and Health Administration (MSHA) final rule 30 CFR § 75.403, requiring that the incombustible content of combined coal dust, rock dust, and other dust be at least 80% in underground areas of bituminous coal mines.
As a part of this investigation, NIOSH and MSHA completed a field study within MSHA’s 10 bituminous coal districts in 2009-2010 to evaluate the CDEM’s performance as a potential compliance tool. NIOSH reported:

The conclusions of this study strongly support the field use of the CDEM to measure the explosibility of coal and rock dust mixtures, to more effectively improve the onsite adequacy of rock dusting for explosion prevention. Mine operators could use the CDEM on a regular basis to ensure that their rock dusting practices are achieving inertization requirements and meeting the intent of 30 CFR § 75.403.

The CDEM Information Circular 9529 is available on the NIOSH web page at:

http://www.cdc.gov/niosh/mining/Works/coversheet1843.html

MSHA encourages mine operators to collect and measure mine dust samples to verify sufficient application of rock dust in underground coal mines. The CDEM may be used to measure the potential explosibility of coal mine dusts.

**What is the background for this PIB?**
The findings of MSHA’s Upper Big Branch explosion accident investigation, MSHA’s internal review of this accident, recent impact inspection data and recent NIOSH publications indicate hazards of coal dust explosions in the U.S.

**What is MSHA's authority for this PIB?**

**Is this PIB on the Internet?**
This PIB may be viewed on the Internet by accessing MSHA’s home page (http://www.msha.gov) and then choosing “MSHA’s Major Laws, Regulations and Policies” and “Compliance Information (PIBs, PILs, the PPM, and More)” and “Program Information Bulletins.”

**Who is the MSHA contact person for this PIB?**
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Who will receive this PIB?
MSHA Program Policy Manual Holders
Underground Coal Mine Operators
Miners’ Representatives
Independent Contractors
Manufacturers
Special Interest Groups