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PROGRAM POLICY LETTER NO.:

FROM: JOHN F. LANGTON  
Deputy Administrator for  
Coal Mine Safety and Health

MARK E. SKILES  
Director of Technical Support

SUBJECT: Application of 30 CFR Part 75.334(b)(1) to Bleeder Systems

**Scope**

This Program Policy Letter (PPL) affects underground coal mine operators, miners and Coal Mine Safety and Health (CMS&H) personnel.

**Purpose**

The purpose of this PPL is to provide clarification for underground coal mine operators, miners and Coal Mine Safety and Health (CMS&H) personnel of the Mine Safety and Health Administration's (MSHA) application of Title 30 Code of Federal Regulations (30 CFR) Part 75.334(b)(1). This letter describes MSHA's policy for evaluating the effectiveness of bleeder systems.

**Policy**

A bleeder system includes the area from which pillars are wholly or partially extracted (including the internal airflow paths), bleeder entries, bleeder connections, and all associated ventilation control devices that control the air passing through the pillared area. Bleeder entries are special air courses designed and maintained as part of the mine ventilation system. Air from separate bleeder systems are separate splits of air.

30 CFR Part 75.334(b)(1) states "During pillar recovery a bleeder system shall be used to control the air passing through the area and to continuously dilute and move methane-air mixtures and other gases, dusts, and fumes from the worked-out area away from active workings and into a return air course or to the surface of the mine."

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Effective bleeder systems control the air passing through the area and continuously dilute and move methane-air mixtures and other gases, dusts and fumes from the worked-out area away from active workings, in an effective manner, preventing hazardous accumulations.

Examinations provide the means of collecting the information needed to evaluate the bleeder system effectiveness. Measurements of methane and oxygen concentrations, air quantity, and a test to determine if the air is moving in its proper direction are made at all locations specified in 30 CFR 75.364(a)(2)(i) and 75.364(a)(2)(ii) and as required by the approved ventilation plan per 30 CFR 75.364(a)(2)(iii). At inlets, outlets, through the primary internal airflow paths within the pillared area, and in the bleeder entries, airflow must be sufficient to be readily discernible and be in the direction specified in the approved ventilation plan. A bleeder system that does not produce discernible airflow in these areas is ineffective. Bleeder systems in which the direction of airflow changes or has been changed, or in which irregular redistribution of airflow has occurred, may no longer be effective. Such bleeder systems should be scrutinized and a determination made if corrective action or plan revisions are necessary.

The methane concentration in the bleeder split immediately before the air joins another split of air is one of the key factors in determining whether the bleeder system is effective in controlling the air passing through the area and continuously diluting and moving methane-air mixtures and other gases, dusts, and fumes from the worked-out area away from active workings. A bleeder system is no longer effective when methane concentrations in the bleeder split cannot be reduced to 2.0 percent before joining another split of air, or in the case when air from the bleeder split is directed to the surface, when the methane concentration in the bleeder split cannot be reduced to 2.0 percent before it reaches the surface.

Methane concentrations in areas of a bleeder system other than the locations described in § 75.323(e) should also be considered and monitored when assessing bleeder system effectiveness under § 75.334(b)(1). Methane and oxygen concentrations, air quantity and direction of the airflow at bleeder connectors and within the primary internal airflow paths are important considerations relative to the adequacy of dilution of contaminant gases and overall system effectiveness. Accumulations of high methane concentrations in locations other than small pockets (such as in a corner, in the interstices of the rubble material, or in a small roof cavity), indicate that changes to the bleeder system may be necessary. Such accumulations may indicate the bleeder system is ineffective. Accumulations of high methane concentrations in the bleeder entries or the primary internal air flow paths that provide a conduit to the active workings are indicative of an ineffective bleeder system. The location and extent of the methane

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accumulation should be considered when determining the effectiveness of the bleeder system. Bleeder systems in which the airflow quantity in the bleeder split is insufficient to provide oxygen concentrations of at least 19.5 percent and not more than 0.5 percent carbon dioxide in areas where persons work or travel, as required by § 75.321(a)(1), are ineffective. An effective bleeder system with adequate ventilation pressure differentials and airflow distribution will not be substantially affected by normal barometric pressure changes.

A correlation exists between the methane concentration at bleeder connectors and that which exists in the airflow of the primary internal airflow paths that lead to those connectors. The methane concentration that exists in the airflow of individual primary internal airflow paths that lead to bleeder connectors is often greater than the methane concentration at the bleeder connector. A methane concentration of 3.0 percent or more at approved measurement point locations (MPL's), evaluation points, or in bleeder entries may indicate an ineffective bleeder system and further investigation by MSHA may be conducted. In certain situations, changes in methane concentration at these locations, of lower than 3.0 percent should prompt further investigation. Under most anticipated circumstances, 3.0 percent methane provides a sufficient safety margin where corrective action or evacuation can be taken by the operator in a reasonable time in order to prevent an accident or injury.

Nothing in this abrogates, alters, or diminishes mine operators' responsibility under Section 303(z)(2) of the Mine Act and 30 CFR 75.334(b)(1) to ensure that bleeder systems are effective and maintained so as to continuously dilute, render harmless, and carry away methane and other explosive gases within areas that have been wholly extracted, partially extracted, or abandoned, such that the active workings of the mine are protected from the hazards of methane and other explosive gases. Section 75.334(b)(1) specifically requires that bleeder systems continuously dilute and move methane-air mixtures and other gases, dusts, and fumes from the worked-out area away from active workings and into a return air course or to the surface of the mine. A determination that a methane concentration of 3.0 percent or more at approved measurement point locations (MPL's), evaluation points, or in bleeder entries does not exist or the fact that there has not been a determination to include additional MPL's in the ventilation plan, does not mean that the bleeder system is in compliance with Section 303(z)(2) of the Mine Act or 30 CFR 75.334(b)(1). The operator has a continuing obligation to evaluate the effectiveness of the bleeder system by a method and at locations appropriate to the circumstances.

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**Background**

The application of Section 75.334(b)(1) has been addressed differently from District to District and has resulted in inconsistencies throughout the industry. This PPL is intended to assure uniform and consistent understanding of the standard.

**Authority**

30 CFR Section 75.334(b)(1).

**Filing Instructions**

This PPL should be filed behind the tab marked "Program Policy Letters" at the back of Volume V of the Coal Program Policy Manual.

**Issuing Office and Contact Person**

Coal Mine Safety and Health, Safety Division

Michael G. Kalich, (202) 693-9714

E-mail: [Kalich.Michael@dol.gov](mailto:Kalich.Michael@dol.gov)

Pittsburgh Safety and Health Technology Center, Ventilation Division

Dennis A. Beiter, (304) 547-2320

E-mail: [Beiter.Dennis@dol.gov](mailto:Beiter.Dennis@dol.gov)

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