PPL No. P13-V-12: Examination, Evaluation, and Effectiveness of Bleeder Systems
Implementation Date: April 1, 2014

Questions & Answers

NOTE: Submitted questions that were outside the scope and intent of PPL No. P13-V-12 were omitted. Similar questions were combined.

Q1: Are we expected to travel entries that are immediately adjacent to the gob (pillared area) as indicated in some of the examples shown in the presentation [for the stakeholders' informational meetings]?

A1: If entries that are part of the bleeder system and that function as bleeder entries are not in common, then each would be a separate set of bleeder entries regardless of whether or not they are adjacent to and not separated from a pillared area. Section 75.364(a)(2)(iii) requires, in part, that "[a]t least one entry of each set of bleeder entries used as part of a bleeder system under § 75.334 shall be traveled in its entirety." Bleeder system designs that are suitable to the conditions and mining system at the mine enable safe access and travel as necessary to conduct a proper evaluation of the effectiveness of the bleeder system. Safe access and travel are expected to be considered in the development of bleeder system designs. In lieu of the requirements of § 75.364(a)(2)(i) and (iii), § 75.364(a)(2)(iv) provides that "an alternative method of evaluation may be specified in the ventilation plan provided the alternative method results in proper evaluation of the effectiveness of the bleeder system." The extent of the examinations in an alternative method of evaluation under § 75.364(a)(2)(iv) must be sufficient to enable completion of a proper evaluation of the bleeder system. Ventilation plans, including those with proposed alternative methods of evaluation of bleeder system effectiveness, are reviewed and approved on a mine-by-mine basis, and shall be suitable to the mining system and conditions at the mine.

Q2: Comments received concerned the extent of travel in alternative methods of evaluation and suggested questions as to what extent was necessary.

A2: The extent of the examinations, including travel of each set of bleeder entries in their entirety and establishment of measurement point locations, in any alternative method of evaluation must be sufficient to complete a proper evaluation. Bleeder system designs that are suitable to the conditions and mining system at the mine enable safe access and travel as necessary to conduct proper evaluations of the effectiveness of the bleeder system. Safe access and travel are expected to be considered in the development of bleeder system designs. Ventilation plans, including those with proposed alternative methods

of evaluation of bleeder system effectiveness, are reviewed and approved on a mine-by-mine basis, with consideration given to the mining system and conditions at the mine.

Q3: With present technology, we should have 24/7 monitoring systems at critical points in all ventilation systems/bleeders (air flow, methane, oxygen, carbon monoxide systems). This is the direction we should go. Is this being considered?

A3: There are atmospheric monitoring systems (AMS) measuring methane and carbon monoxide concentrations in use in the mining industry and some additional testing is on-going. Real-time information could enhance early detection of changes in airflow and/or changes in contaminant levels in that airflow. Monitoring of this type, in addition to physical examinations required for a proper evaluation of the effectiveness of the bleeder system, would be acceptable. Further, conditions at a mine may warrant the inclusion of real-time monitoring in the mine ventilation plan in addition to examinations. However, such systems cannot detect developing ground control and water accumulation issues that may adversely impact a bleeder system if left unaddressed. Use of an AMS to monitor specific parameters as part of an alternative method of evaluation under § 75.364(a)(2)(iv) may be appropriate, however, the extent of the examinations in an alternative method of evaluation must be sufficient to enable proper evaluation of the effectiveness of the bleeder system.

Q4: Will this PPL (P13-V-12) affect pillaring barrier-to-barrier ("wall-to-wall") on panels?

A4: The PPL was issued to clarify and improve the examination and evaluation of bleeder systems. Proposed plans for mining and bleeder system designs will be evaluated by MSHA on a mine-by-mine basis. There was no intent to prohibit "wall-to-wall" retreat pillar mining as a matter of policy.

Q5: One comment received concerned the topic of using boreholes as a method to evaluate bleeders in adverse conditions and suggested a question as to whether or not travel was necessary to both the top and bottom of the boreholes.

A5: There are differences between monitoring boreholes and ventilation boreholes. Discussions during the stakeholder informational meetings included examples of remote monitoring in extreme situations, in which monitoring boreholes have sometimes been proposed and approved on a mine-by-mine basis. As required under § 75.364(a)(2)(iv), a ventilation plan for an alternative method of evaluation must result in the proper evaluation of the effectiveness of the bleeder system. District Managers have the authority and responsibility, through the plan approval process, to ensure that a plan for an alternative method of

evaluation is suitable to the conditions and mining system at the mine and will provide for the proper evaluation of the bleeder system. Specific plans for mining and bleeder systems will be evaluated by MSHA on a mine-by-mine basis.

Q6: What are the criteria for approving alternative methods of evaluations?

A6: As stated in § 76.364(a)(2)(iv), an alternative method of evaluation may be specified in the ventilation plan provided the alternative method results in a proper evaluation of the bleeder system. An alternative method must provide for gathering the information necessary to properly evaluate the effectiveness of the bleeder system. MSHA will consider alternative methods, including establishment of evaluation points (EPs), on a mine-by-mine basis. In determining if a proposed alternative method of evaluation under this section results in a proper evaluation of the effectiveness of the bleeder system, MSHA District Managers should also consider factors identified in PPL No. P13-V-12, including the requirements of § 75.364(a)(2)(i) and 75.364(a)(2)(iii), and the conditions and mining system at the mine. Section 75.364(a)(2)(iv) does not permit a means for an alternative method of evaluation in lieu of the requirements of § 75.364(a)(2)(ii). Consistent with § 75.370 and current practice, the District Manager has the authority and responsibility, through the plan approval process, to ensure the mine ventilation plan is suitable to the conditions and mining system at the mine.

Q7: One comment received concerned identification of sets of entries mined for setup entries or recovery entries that functioned as bleeder entries and the depiction of separate sets of bleeder entries in the presentation used at the stakeholders' informational meetings. The comment suggested questions as to whether MSHA was discouraging the use of a bleeder pillar between the set-up rooms and separate adjacent back bleeders and/or discouraging the use of recovery rooms and chutes.

A7: PPL No. P13-V-12 is intended to provide consistency in the application of the standards with regard to travel, examination, evaluation, and means for determining the effectiveness of bleeder systems. The entries that comprise a set of bleeder entries are not defined by the standards. As stated in the PPL, some entries and/or rooms surrounding the pillared area may not have been routinely identified as traveled bleeder entries in certain bleeder system designs. However, these entries and/or rooms around the pillared area are an inherent part of many bleeder systems and function as bleeder entries in that gases, dusts, and fumes from the pillared area are moved into and through these entries and/or rooms away from active workings. The MSHA presentation used at the stakeholders' informational meetings reflected this function of these entries

and/or rooms as bleeder entries. Mine operators and MSHA District Managers should also consider the function of such entries and/or rooms in the bleeder system design when assessing the appropriateness of examinations and/or alternative methods of evaluation approved under § 75.364(a)(2)(iii) and (iv), respectively. The intent of the examples was two-fold: 1) to facilitate discussion of designs that incorporate individual bleeder entries physically separated from adjacent bleeder entries and the impact of that separation on the establishment of separate sets of bleeder entries, and 2) to facilitate discussion concerning how a specific design may impact required examinations and the information collected at specific measurement point locations. The PPL and presentation are not intended to encourage or discourage any particular system design that enables a proper evaluation of the effectiveness of the bleeder system.