

§ 75.1502. MSHA expects the program of instruction (mine emergency and firefighting plan) will be modified to reflect the actions required § 75.352.

Proposed paragraph (b) would require that when contaminant concentration levels for any CO, smoke, or equivalent sensor installed in accordance with §§ 75.340(a)(1)(ii), 75.340(a)(2)(ii), 75.350(b), or 75.350(c) exceeds the specified alert or alarm level, the following procedures would have to be followed unless the cause of the alert or alarm signal is known not to be a hazard to the miners:

Under proposed paragraph (b)(1), when an alert signal is given, the sensor activated would have to be identified and an examination would have to begin immediately to determine the cause of the alert signal.

Under proposed paragraph (b)(2), when an alarm is given, the sensor that is activated would have to be identified, and the mine emergency evacuation and firefighting procedures initiated as required by the approved program of instruction (§ 75.1502). At a minimum, all personnel in the affected area, unless assigned other duties in the approved program of instruction (§ 75.1502), would have to be promptly evacuated outby the next functioning sensor upwind of the alarming sensor.

In developing this proposed rule, we have attempted to assure that the AMS used represents the state-of-the-art in monitoring. However, no matter how effective the monitoring system is, the safety of those miners affected by the event causing the alert or alarm signal is related to their reaction to the alert or alarm signal. We intend proposed paragraphs (b)(1) through (b)(2) to assure that the mine operator acts to protect the affected miners when an AMS activates an alert or alarm signal.

Paragraph (c) of proposed § 75.352 addresses the action required in case of an alarm from a methane sensor. These would include methane sensors installed in accordance with §§ 75.323(d)(1)(ii) and 75.362(f). The specific actions required by the proposed rule would include identification of the sensor that is causing the alarm and an investigation into the cause of the alarm. This action must also be consistent with the requirements of existing §§ 75.323(c) and § 75.323(d).

Proposed § 75.352(d) addresses the actions required if any fire detection component of the AMS malfunctions or is inoperative. The proposed rule would require the operator to take immediate action to return the system to proper operation. It is our intention that the belt would not operate if all or part of

an AMS installed in accordance with §§ 75.350(b) or 75.350(c) becomes inoperative unless the actions specified in paragraph (d) are taken. The proposed standard is consistent with the Advisory Committee recommendation and with recent petitions that permit the use of belt air to ventilate working places.

Paragraph (d)(1) would cover those instances when one sensor becomes inoperative. Under this condition, we would require the operator to station a person trained in the use of hand-held devices to continually monitor for CO or smoke near the inoperative sensor.

This action is consistent with current requirements in granted petitions and gives the mine operator needed information on the atmosphere at the location of the inoperative sensor.

Paragraph (d)(2) specifies the monitoring that would be required if two or more adjacent AMS sensors become inoperative. Under the proposed rule, a sufficient number of trained persons would be required to patrol and continuously monitor the area affected so that the area is traveled each hour in its entirety. As an alternative under (d)(2), the operator could station a trained person near each inoperative sensor to continuously monitor CO or smoke.

These actions are consistent with current requirements in granted petitions and give the mine operator needed information on the atmosphere at the locations of the inoperative sensors.

Proposed paragraph (d)(3) would specify actions required if the complete system becomes inoperative. When determining what is complete system failure, we do not mean that every component of the system does not function. It is intended that this paragraph of the proposed rule would apply when part of the system is inoperative to render the system incapable of performing its intended function. For example, if a break in the data transmission line occurs that does not permit sensors to communicate with the central processing unit (CPU) on the surface or if the CPU itself becomes inoperative although all underground components continue to operate, the entire system should be considered inoperative. When the entire system becomes inoperative, paragraph (d)(3) would require the mine operator to take immediate action to have trained persons patrol and continuously monitor for CO or smoke so that the affected belt entry(ies) is traveled each hour in its entirety. This means, as an example, that the affected area is traveled in its entirety between 1 pm

and 2 pm and then traveled again in its entirety between 2 pm and 3 pm, and so on.

When monitoring is conducted during times of system or sensor malfunction, the person doing the monitoring must be qualified to make these tests. As specified in (d)(4), the person would have communication available with the designated surface location or communication available at intervals not to exceed 2,000 feet. This could be a mine phone, telephone, trolley phone, or radio location. Easily accessible communication is necessary to ensure quick notification to the designated surface location when an alert or alarm level is reached.

Paragraph (d)(5) would require the trained persons monitoring under this section to report the concentrations detected at the affected AMS sensor(s) at intervals not to exceed an hour. This action gives the mine operator needed information on the atmosphere at the locations of the affected sensors. It also requires that the person monitoring under this part immediately report levels of contaminants reaching the specified alert and alarm levels unless the cause of the contaminant is known not to represent a hazard. In addition, for mines using a time delay, persons monitoring under this section would be expected to report the concentrations immediately following the expiration of the applicable time delay.

Paragraph (d)(6) would require that instruments used to comply with this paragraph have a level of detectability comparable to those required for AMS sensors by proposed § 75.351(l). Hand-held methane and CO detectors are commercially available. Some AMS sensors do not have commercially available hand-held counterparts, so that an alternate instrument would be needed as proposed in (d)(7). For example, smoke sensors which malfunction will require monitoring with an alternate sensor, perhaps a hand-held CO detector, with alert and alarm levels to be specified and approved in the mine ventilation plan.

Paragraph (e) requires that if the 50-fpm minimum air velocity is not maintained in the belt entry as required in proposed § 75.351(e)(3), immediate action must be taken to return the ventilation system to proper operation. It also requires that while the 50-fpm air velocity is not maintained, trained persons must patrol and continuously monitor for CO or smoke as set forth in § 75.352(d) so that the affected belt entry(ies) is traveled each hour in its entirety. As discussed previously, contaminants must reach the sensors in order to be detected. Less than a 50-fpm