

of the weekly test of alert and alarm signals, calibrations, and maintenance of the system. Unlike the records required by paragraphs (o)(1)(i) and (ii), the records required by paragraph (o)(1)(iii) would be made by the person(s) doing the test, calibration, or maintenance. These individuals have firsthand knowledge of how the sensors performed during their calibration and testing and any maintenance required.

Proposed paragraph (o)(2) would require the person entering the record to include their name, title, date, and signature. These records are necessary because they will document the test, calibration, and maintenance history of the AMS and will provide the operator with an overall perspective of how the AMS is operating.

Consistent with other requirements of this subpart, proposed paragraph (o)(3) would require that all records required by this section be maintained in a secure book that is not susceptible to alteration or electronically in a computer system that is secure and not susceptible to alteration. This section requires that these records be maintained separately from any other record and be easily identifiable by a title, such as the "AMS log."

Proposed paragraph (p) would require all records to be maintained for one year at a surface location at the mine and made available for inspection by miners and authorized representatives of the Secretary. Proposed paragraphs (o) and (p) are consistent with the Advisory Committee recommendations, existing regulations, and recent petitions. This proposed section is intended to assure that these records are maintained and made available, and that the appropriate level of mine management is made aware of conditions or problems requiring attention. The proposed rule also would help to assure the integrity of records and enable mine management to review the quality of the examinations. Consistent with existing standards in this part, we intend the term "secure and not susceptible to alteration" when applied to electronic storage to mean that the stored record cannot be modified. One example of acceptable electronic storage would be a "write once, read many" file.

Proposed paragraph (q) would require that all AMS operators be trained annually in the proper operation of the AMS. MSHA believes that the training program for an AMS operator should address at least two topics. These include:

1. The hardware and software operation of the system, and

2. Provisions and requirements of the ventilation plan, fire fighting and evacuation plan, and the requirements of this rule.

The hardware training should at least include the following subjects:

1. A complete AMS overview, including orientation with the central computer system and its components, the data highway, outstations, and sensors.

2. Common system problems and diagnostic tools, as well as any special features of the system.

The software operation training should include at least the following subjects:

1. Basic computer operating systems, such as MS-DOS or Windows.

2. CMOS setup, board(s), jumper and address settings, directory and file allocation, program start-up, logging in/out of system, system shutdown and other AMS software functions.

3. Printing, editing sensor points, setting communication parameters, creating reports, and device controls.

4. Special features of the system, such as networking, graphics editing, and database management.

And, finally, AMS operators would need to be trained on the following issues:

1. The provisions and requirements of the ventilation plan, fire fighting and evacuation plan, and

2. The requirements of this rule.

A record of the content of training, the person conducting the training, and the date the training was conducted, would have to be maintained at the mine by the mine operator. This record would have to be maintained for at least one year. This training would assure that the AMS operator maintains proficiency in the operation of the AMS and the understanding of his/her responsibility under this rule.

Proposed paragraph (r) would require that when an AMS is used to comply with § 75.350(b), a two-way voice communication system, as required by § 75.351(b)(1), must be installed in a separate entry than the AMS. The ability to communicate is essential during emergency situations, such as a fire. Therefore, it is critical that at least one line of communication remain intact. In the event of a roof fall, fire, or other event in one entry that could damage either the AMS or the two-way voice communication, it is more likely that one of these systems will remain functional when installed in an alternate entry, thus providing an additional measure of protection.

Section 75.352 Actions in Response to AMS Malfunction, Alert, or Alarm Signals

The designated AMS operator or other designated person referred to in § 75.352(a) must be clearly identified by name or title and the name or title must be posted at the mine. Paragraph (a) of proposed § 75.352 sets out the actions to be followed when any malfunction, alert, or alarm signal is received from a CO, smoke, or an equivalent sensor installed in accordance with §§ 75.340(a)(1)(ii), 75.340(a)(2)(ii), 75.350(b), or 75.350(c). These actions are required unless the cause of the alert or alarm signal is known not to be a hazard to the miners. If the cause of the alert or alarm signal is known not to represent a hazard, such as sensor calibration, or cutting and welding, the proposed rule would not require notification of affected workers. However, we would still require a record of these events under proposed § 75.351(o).

The Advisory Committee recommended the automatic activation of signals on the working section when the CO concentration reaches the alert level. However, we believe that automatic activation of signals on the working section at alert levels could potentially inhibit the system's effectiveness if a "cry wolf" syndrome develops. Therefore, we have not included this requirement in this proposed rule. This is consistent with recent belt air petition requirements. Under this condition, a miner receiving an alert signal from an AMS that later is determined not to represent a hazard may lose confidence in the system and become desensitized to alarms. Such a situation reduces a miner's confidence in the AMS and may reduce the importance of an alarm to the worker. We believe that the procedures outlined in proposed § 75.352(a)(1) would provide the early warning intended under an alert or malfunction condition. Proposed § 75.352(a)(1) would require that when the alert level is reached or a malfunction occurs, the sensor involved is identified, appropriate personnel are notified, and an examination is immediately begun to find the cause of the alert or malfunction signal.

Proposed paragraph (a)(2) would require that when an alarm level is reached, appropriate personnel need to be notified, including miners in affected working sections, in areas where mechanized mining equipment is being installed or removed, and in other locations specified in the approved program of instruction as set forth in