Compliance Guide for High-Voltage Longwall Regulations 30 C.F.R. Parts 18 and 75

1. If my longwall was approved under the old regulations, but does not meet all of the provisions of the new regulations, do I have to upgrade it to meet the new regulations?

Yes. The provisions of the new regulations apply to both new high-voltage longwall mining systems approved on and after May 10, 2002, and to previously approved systems. Mine operators should ensure that existing high-voltage longwalls meet the new regulations by the effective date of the final rule. For example, MSHA has identified 30 C.F.R. 18.53(b) of the new rule as a section that may affect previously approved high-voltage longwalls. This requirement states that, "[e]ach cover of a compartment in the high-voltage motor-starter enclosure containing high-voltage components must be equipped with at least two interlock switches arranged to automatically deenergize the high-voltage components within that compartment when the cover is removed." Operators may need to update the design of the high-voltage motor-starter enclosure by adding an additional cover interlock switch in order to achieve compliance with the new regulations. Any approval actions necessary to implement equipment design changes to meet the new requirements of the regulations must be submitted to the MSHA Approval and Certification Center for approval through the Revised Approval Modification Program (RAMP) or the Field Modification Program. If the operator is not able to make the necessary physical changes to the longwall mining system prior to May 10, 2002, a letter must be submitted with the RAMP or field modification application. This letter must include a justification as to why the changes will be delayed beyond May 10, 2002, and a specific date when the changes will be completed.

2. Would this new regulation apply to a future 7200-volt longwall system?

In promulgating this rule, only 2300 and 4160-volt longwall systems were contemplated as being used under the final rule since those were the only systems submitted for approval under 30 C.F.R. Part 18 and under petitions for modification of 75.1002 for high voltage longwall use in underground coal mines. No comments were received on the proposed rule that suggested any other systems were available or contemplated to be available in the future. Further, 30 C.F.R. 18.47(d) currently limits the maximum nameplate voltage for alternating current machines to 4,160 volts. As a result, if a longwall system greater than 4160 volts becomes feasible in the future, it would need to be evaluated by MSHA under an experimental permit issued under 30 C.F.R. 18.82 to ensure it would not present a fire or explosion hazard. Then, if approved under Part 18, a section 101(c) modification of 75.1002 would be required for long term use of such new longwall technology in underground coal mines. Additional or modified safety requirements may be warranted as MSHA and the mining industry gain experience with its application in the mining environment. Use of the 2300 and 4160 volts longwall systems were evaluated by MSHA under the same process before promulgation of this high-voltage longwall final rule.

3. Does my 2,300-volt continuous mining machine fall under these new regulations?

No. The regulations apply only to high-voltage longwalls rated at 4,160 volts or less. Use of a high-voltage continuous mining machine will continue to require a 101(c) petition to modify 30 C.F.R. 75.1002 to be granted before it is used.

4. 30 C.F.R. 18.53(a) describes three different compartments for the motor-starter enclosures. What must be contained in each of these compartments?

- Disconnect device compartment – The disconnect device compartment must be separated from the rest of the motor-starter enclosure compartments by barriers of grounded metal or nonconductive insulating board. In addition to the disconnect device, this compartment must contain all other components that remain energized when the device is open and grounded. Opening the disconnect device must de-energize all circuits in the motor-starter enclosure except for circuits totally contained in the disconnect device compartment.

- Motor contactor compartment(s) – This compartment contains the high-voltage motor contactors and any other high-voltage components connected to the load side of the main disconnect device. Components that have a high-voltage input and a low or medium-voltage output must be housed in this compartment. For example, a current transformer that is installed around a high-voltage phase conductor has a low-voltage output. This component must be located in the motor contactor compartment. Control components having a low-voltage input and output, such as an overload relay, must be located in the control/communications compartment.

- Control/communications compartment(s) – This compartment contains all low-voltage control circuits and components, and shall not contain high-voltage components.

5. What is the purpose of the control/communications compartment described in 30 C.F.R. 18.53(a)?

The control/communications compartment separates the low-voltage control/communications circuits from the high-voltage circuits. Troubleshooting and testing is permitted in this low-voltage compartment regardless of the position of the main disconnect device.

6. Can there be more than one control/communications compartment in a high-voltage motor-starter enclosure described in 30 C.F.R. 18.53(a)?

Yes, provided each compartment is separated from the motor contactor compartment and input disconnect compartment by grounded metal or nonconductive insulating barriers. Each compartment should be accessible so that troubleshooting and testing can be performed in that compartment regardless of the position of the main disconnect device.

7. Why can't the low-voltage controls, described in 30 C.F.R. 18.53(a), be housed in the same compartment as the high-voltage motor starters? Testing and troubleshooting can be performed in the motor contactor compartment without exposure to high-voltage with the test switch in the test position.

Compliance with 30 C.F.R. 18.53(a) requires the components with**in** each high-voltage motor-starter enclosure **to** be segregated into separate compartments by voltage classification. This requirement protects against shock hazards which may arise from inadvertent contact with energized high-voltage circuits. Most problems with the system can be resolved with the high-voltage motor-starter test switch in the "test" mode. However, MSHA anticipates some problems, especially intermittent problems, which can only be resolved with the high-voltage circuits in the motor contactor compartment energized with the switch in the "normal' mode. A control/communications compartment enables maintenance personnel to connect meters and troubleshooting equipment to the control circuit and troubleshoot these problems without exposure to energized high-voltage circuits.

8. 30 C.F.R. 18.53(a) requires the three different compartments to be separated by a grounded metal or nonconductive insulating board. Can this barrier be perforated or have access holes for cables or other conduits?

The purpose of this barrier is to prevent personnel performing troubleshooting or testing inside a compartment with low- and medium-voltage components from contacting energized high-voltage components. Holes are permitted in the barriers for cables and ventilation, but the location and size of the holes must prevent inadvertent contact with energized high-voltage circuits.

9. The barrier between the different compartments, as specified in 30 C.F.R. 18.53(a), can be made of a nonconductive insulating board. Does this board need a voltage rating?

To provide adequate insulation, the nonconductive insulating board must have a voltage rating at least equal to the highest voltage inside the compartments it separates.

10. Are the two interlock switches, specified in 30 C.F.R. 18.53(b), required on all high-voltage enclosure covers?

30 C.F.R. 18.53(b) requires at least two interlock switches on all covers of the high-voltage motor-starter enclosures arranged to automatically de-energize the high-voltage components within the compartment when the cover is removed.

11. Are there different requirements for different types of interlock switches?

No. The requirements for all types of interlock switches are identical. All interlock switches must remain operable. Experience has shown that the plunger-type interlock switch may stick due to the mine environment and frequently fails in the depressed position. For this reason, MSHA recommends either a magnetic or a whisker-type switch.

12. Can one mechanical interlock and one electrical interlock switch be substituted for the two interlock switches required under 30 C.F.R. 18.53(b)? The mechanical interlock will be arranged so that the cover must be removed starting with the end of the cover with the electrical interlock.

No. 30 C.F.R. 18.53(b) specifically requires two interlock switches per cover to assure that all high-voltage circuits in the compartment are deenergized when the cover is removed. The preamble discussion on section 18.53(b) states that the interlocks "must be wired into the circuitry so that operation of either switch will deenergize the incoming high-voltage circuits."

13. Where on the cover should these two interlock switches be located?

Although the rule does not require a specific location, the two interlock switches should be located on opposite sides of the cover to ensure that the enclosed circuit(s) are deenergized when the cover is removed.

14. My longwall uses a combination power center/motor-starter. Are two interlock switches required on all compartments containing high-voltage circuits?

No. Only compartments containing high-voltage circuits in the motor-starter enclosure must be protected by two interlock switches. Although not required by the regulations, MSHA encourages the industry to continue to provide interlock switches for all high-voltage compartment covers.

15. Are interlock switches required on the high-voltage motor junction box covers?

No. Interlock switches are required on the covers of enclosures containing high-voltage contactors and other high-voltage switchgear. Because junction boxes do not contain such circuitry, they are not required to have interlock switches.

16. Are interlock switches required on covers of compartments containing only low- and medium-voltage circuits?

No. Interlock switches are not required on covers of compartments containing only low- and medium-voltage circuits.

17. In addition to the covers of the disconnect device compartment and the motor contactor compartment(s), are cover interlock switches required anywhere else?

Barriers between compartments would require two cover interlock switches if personnel can gain entry to the high-voltage compartment from a low-voltage compartment during routine maintenance.

18. Do covers installed so that they can only be removed from the inside of the compartment need to be protected with interlock switches?

No**,** they don't, provided that removal of the cover requires the removal of another cover equipped with two interlock switches that cause all high-voltage circuits in the compartment to be deenergized.

19. 30 C.F.R. 18.53(c) prohibits an automatic reset of a circuit-interrupting device. Is a manual remote reset permitted?

Yes. Although a manual remote reset is permitted, MSHA recommends that some type of diagnostic circuit be provided at each remote reset location, so that the person who initiates the remote reset will be able to determine what caused the circuit interrupting device to initially open or trip. Repeated closing of a circuit-interrupting device when a fault condition exists can cause failure of the device and can create fire and shock hazards.

20. Must all control transformers with a high-voltage primary have a Faraday shield between the primary and the secondary?

Yes. All transformers, with a high-voltage primary, supplying control voltage to low-voltage control circuits, must have a grounded shield between the high-voltage primary and the low-voltage secondary windings.

21. How can I check to see if my control transformer has a Faraday shield?

Some transformers with a Faraday shield have a small wire exiting from the transformer windings and terminating on the transformer core. Other transformers have an internal connection between the shield and the transformer core. For these transformers, you must consult the transformer manufacturer.

22. My high-voltage motor-starter enclosure uses a transformer with a 4,160-volt primary and a 480–volt secondary to operate utility power circuits. A control transformer with a 480-volt primary and a 120-volt secondary is connected to this circuit to provide control voltage. Does either of these transformers require a Faraday shield?

No. 30 C.F.R. 18.53(d) only applies to control transformers with high-voltage primary windings. In this example, the 4,160 to 480 volt transformer is a power transformer and would not require a faraday shield. The 480 to 120 volt transformer is a control transformer but it does not have a high-voltage primary.

23. The manufacturer of my control transformer has a Faraday shield connected to the transformer frame. Will simply bolting the transformer to the motor-starter enclosure frame provide an acceptable ground?

If the Faraday shield is internally connected to the transformer frame, bolting the transformer frame to the starter enclosure will provide the required path to ground, as long as the bolts make an effective low impedance electrical connection. If the Faraday shield is externally grounded to the motor-starter enclosure, the grounding conductor must be a minimum of No. 12 AWG.

24. My control transformer has a Faraday shield between the high-voltage primary and the secondary. The transformer manufacturer uses a No. 16 AWG wire to connect the shielding to the core of the control transformer. Does this meet 30 C.F.R. 18.53 (d) and can I continue to use this transformer?

Yes. Wiring that is part of the transformer is simply an extension of the shield and is not part of the grounding conductor described in 30 C.F.R. 18.53(d). The intent of this section of the rule is to provide an effective path for ground-fault currents. The No. 12 AWG wire size was selected to ensure conductor integrity of the grounding conductor external to the transformer. Wiring that is part of the transformer would be of limited length and protected from forces that could break the wire. Therefore, a manufacturer can use a No. 16 AWG wire to extend the shield to the transformer core.

25. My control transformer has high voltage primary and a 240-Volt secondary with a grounded center tap. Can I continue to use this transformer?

Yes. The voltage of alternating current control circuits shall not exceed nominal 120 volts line-to-line. This requirement will allow any appropriate control circuit wiring configuration, including those that allow or cause 120 volt line-to-ground control voltage levels to exist.

26. 30 C.F.R. 18.53(e) requires test circuits for ground-wire monitors and ground-fault relays. Does this section refer to only ground-wire monitors and ground-fault relays used on high-voltage circuits?

30 C.F.R. 18.53(e) requires test circuits for ground-wire monitors and ground-fault relays used on high-voltage circuits. Operators are encouraged to provide test circuits for ground-wire monitors in low and medium-voltage circuits to facilitate the required tests of the equipment.

27. 30 C.F.R. 18.53 (e) requires test circuits for checking ground-wire monitors and ground-fault protection without exposing personnel to energized circuits. Must the ground-fault relay and ground-wire monitor test circuits be operable from outside the enclosure?

A test circuit operated by an exterior switch enhances the safety of the system by allowing testing without exposure to energized circuits. However, the final rule permits testing and troubleshooting near low- and medium-voltage circuits with properly rated gloves. A test circuit installed in the low and medium-voltage control/communications compartment would be acceptable.

28. What kind of a test circuit is required for ground-fault relays under 30 C.F.R. 18.53(e)?

The ground-fault test circuit should test as much of the ground-fault relay circuit as possible without actually putting a ground-fault on the system. For a ground-fault relay that detects current, the test circuit should inject a current through the current transformer equal to not more than 50% of the maximum available ground-fault current.

29. What kind of test circuit is required for ground-wire monitors under 30 C.F.R. 18.53(e)?

The test should determine if the ground-wire monitor system is operating properly. The type of test depends on the type of ground-wire monitor. In general, a ground-wire monitor that provides protection against a pilot to ground short may be tested with a test button at the power center or motor-starter enclosure. A ground-wire monitor that does not provide pilot to ground protection must be tested at the machine or motor end of the cable.

30. Are test circuits required for voltage and thermal ground-fault relays?

No. Only ground-fault relays that detect current are required to have test circuits.

31. 30 C.F.R. 18.53(f) requires a disconnect device. What must this disconnect device disconnect?

The main disconnect device must remove all power from the motor-starter enclosure except for some components in the compartment housing the main disconnect device. Low- and medium-voltage power circuits and the low-voltage control circuits may be re-energized in the test mode for the purpose of troubleshooting and testing, with the disconnect device in the open and grounded position. The disconnect device must provide visible evidence that the high-voltage circuits in the motor-starter enclosure are de-energized. No energized high-voltage circuits should exit the disconnect device compartment when the disconnect device is in the open and grounded position.

32. How can I obtain a visible disconnect so that work can be performed on the control/communications circuits in the motor-starter enclosure?

A separate control/communications circuit visible disconnect device can be installed as part of the motor-starter enclosure to deenergize the control/communications circuits. An outby visible disconnect device which removes all power from the high-voltage motor-starter enclosure can be used provided the outby visible disconnect device is located on the longwall section and advances or retreats along with the longwall.

33. Can a motor-starter enclosure have more than one disconnect device? Can a power center have more than one disconnect device?

Yes. Except for the high-voltage shearer, 30 C.F.R. 18.53(f) requires a disconnect device to de-energize all high voltage power conductors extending from a motor-starter enclosure. This disconnect device can be a single device or multiple devices which are mechanically connected to provide simultaneous operation with one handle. A motor-starter enclosure may also include visible disconnect devices for each of the output circuits extending from the motor-starter enclosure. A motor-starter enclosure may also include visible disconnect devices for the control/communications circuits. 30 C.F.R. 75.815(a) requires a main disconnect device installed in section power centers to de-energize all cables extending to longwall equipment. Again, this disconnect device can be a single device or multiple devices which are mechanically connected to provide simultaneous operation with one handle. A power center may also include visible disconnect devices for each of the output circuits extending from the power center. Additionally, a power center may include visible disconnect devices for the control/communications circuits and for low- and medium-voltage circuits.

34. 30 C.F.R. 18.53(f)(2)(i) requires the contacts of the disconnect device to be visible without removing any covers. Can I bolt a protective cover over the viewing window?

No. The purpose of 30 C.F.R. 18.53(f)(2)(i) is to enable maintenance personnel to conveniently view the status of the disconnect device. For example, if the viewing window is scratched or hazy, it prevents easy viewing of the contacts of the disconnect. In this case the window would have to be replaced.

35. What is the purpose of the test switch described in 30 C.F.R. 18.53(g)(1) & (2)?

This test switch permits control voltage in the motor contactor compartment with high-voltage circuits deenergized to allow for troubleshooting and testing without exposing personnel to high-voltage.

36. A test switch is required to energize the control/communication circuits in the high-voltage motor-starter enclosure with the input disconnect device in the open position. Can work be performed in the control/communication compartment with the input disconnect device in the open and grounded position?

No work can be performed on energized circuits except for troubleshooting and testing. When the input disconnect device is in the open and grounded position and the switch is in the "test" mode, the control/communication circuits are energized.

37. Do I need to submit a new available fault current study every time I complete a longwall panel?

No. Fault current studies document the minimum and maximum available short circuit current at each load. The minimum available short circuit current is used to determine if the cable has adequate overcurrent protection. The maximum available short circuit current is used to determine if the interrupting rating of the circuit interrupting devices is adequate, if the cables can withstand a short circuit without insulation damage, and if an explosion-proof enclosure is capable of withstanding pressures caused by a bolted fault on the input cable. Typically, operators submit the anticipated worst-case minimum short circuit current and maximum short circuit current for the life of the longwall system. If plans for the longwall system change, and the submitted study is not the worst case or if the longwall is moved to a new mine, then a new fault current study must be submitted.

38. 30 C.F.R. 18.53(i) requires all longwall motor and shearer cables greater than 660 volts to be made of a shielded construction with a grounded metallic shield around each power conductor. Does this require all 950-volt equipment associated with the longwall to have shielded cables?

The new regulations listed in 30 C.F.R. 75 apply to all high voltage longwall circuits and equipment. In general, this will include all longwall equipment that is supplied by the longwall power center. The regulations listed in 30 C.F.R. 18 apply only to the equipment listed as part of the longwall approval.

- If the equipment is an integral part of the longwall and is listed on the longwall approval, then the cable must be shielded with a grounded metallic shield around each power conductor (SHD-type construction).
- If the equipment is not part of the longwall approval, then the trailing cables must meet 30 C.F.R. 75.907 and be either SHD or SHC type construction. Other cables must be installed according to the approval for the equipment or in accordance with Section 30 C.F.R. 75, whichever is applicable.

39. What tolerance is permitted on the high-voltage ground-fault relay trip setting described in 30 C.F.R. 18.53(j)?

The ground-fault relay trip setting of 125 mA is the maximum setting. The installed ground-fault relay must trip at 125 mA or less. A ground-fault relay with a 125 mA setting and an actual trip point of 130 mA does not comply **with** 30 C.F.R. 18.53(j).

40. 30 C.F.R. 18.53(k) requires corona safeguards. Are stress cones or similar terminations required?

No. This section is not intended to require stress cones or similar termination schemes.
A typical safeguard would include using cables with a corona resistant insulation such as ethylene propylene.

41. Will I still be required to specify the minimum free volume of enclosures with high-voltage switchgear?

30 C.F.R. 18.53(l) requires a method to limit the maximum pressure rise within an explosion-proof enclosure containing high-voltage switchgear to 0.83 times the design pressure of the enclosure. Specifying the minimum free volume of the enclosure, the maximum short circuit current and the circuit breaker interrupting time is one way to limit the maximum pressure rise. 30 C.F.R. 18.53(l) is written to permit other ways to limit the pressure rise. The method of

limiting the pressure rise must be specified and accepted by MSHA.

42. What is the "creepage distance" as set out in 30 C.F.R. 18.53(n)?

The creepage distance is the shortest path between two conductive parts or between a conductive part and the grounded surface of the equipment, measured along the surface of the insulation.

43. What is the "comparative tracking index" referred to in the table for minimum creepage distances under 30 C.F.R. 18.53(n)?

The comparative tracking index is a comparison of the performance of insulating materials under wet and contaminated conditions. The test criteria are described in the American Society for Testing and Material (ASTM) Standard D3638-93. Copies of the standard can be ordered from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, phone: (610) 832-9585, fax: (610) 832-9555.

44. What is the "minimum free distance" referred to in the table for high-voltage minimum free distances (MFD) under 30 C.F.R. 18.53(o)?

The minimum free distance is the straight-line distance between an uninsulated terminal or conductor and the enclosure wall, cover or top.

45. If I install a nonconductive insulating board between an uninsulated terminal and the enclosure wall, how do I measure the minimum free distance?

The nonconductive insulating board has no effect on the required minimum free distance. You should calculate the distance as though the insulating board was not there.

46. What would be the minimum free distance requirement if I install a grounded steel shield between the uninsulated terminal and the enclosure wall or cover?

The thickness of the steel shield will be added to the steel enclosure wall/cover and the total thickness will be used to determine the required minimum free distance from the table. If the steel shield is placed in front of an aluminum wall or cover, only the thickness of the steel shield will be used to determine the required minimum free distance. The thickness of the aluminum wall/cover will be ignored in this case.

47. Can I simply apply nonconductive insulating material around the terminal to comply with the minimum free distance requirement?

Yes, but the method of insulating the terminal must be documented and the completed assembly must provide insulation with a rating greater than the phase-to-phase voltage of the system.

48. The table in 30 C.F.R. 18.53(o) lists minimum free distances for maximum available fault currents of 10,000, 15,000 and 20,000 amperes. If my maximum available fault

current is not one of the three values listed, can I calculate the required minimum free distance for my available fault current?

Yes. The formulas are given in 30 C.F.R. 18.53(o).

49. Does every enclosure containing high-voltage switchgear need to be pressure tested?

Under 30 C.F.R. 18.53(p), before an enclosure design is certified, each explosion-proof enclosure containing high-voltage switchgear must have a static pressure test prior to the explosion tests. After the enclosure design has been certified, a static pressure test is required on each enclosure built to that design before it is placed in service on a high-voltage longwall.

50. Can MSHA waive the static pressure test required on each high-voltage enclosure?

Yes. Under 30 C.F.R. 18.53(p), this test can be waived if an applicant submits a detailed quality assurance procedure covering the inspection of the enclosure, which is acceptable to MSHA.

51. Who performs the static pressure tests on the production enclosure?

The applicant is responsible for proving that the static pressure test was performed and to keep detailed records showing that the enclosure met the acceptable performance criteria.

52. The preamble for the rule indicates that only circuit-interrupting devices designed for manual closure rather than automatic be used to protect against safety hazards that could result in severe bodily injury and death if unexpected automatic energization of equipment were to occur. Does this mean that my mine must stop using reclosing circuit breakers on the 300 Vdc trolley system?

No. It was not MSHA's intent to prevent trolley circuit breakers from reclosing. The automatic circuit interrupting devices mentioned in 30 C.F.R. 75.1001-1 are specified in the MSHA Program Policy Manual to be either automatic circuit breakers or fuses. Further, the policy manual discusses reclosing circuit breakers equipped with load-measuring circuits and voltage-differential circuits to prevent the circuit breakers from reclosing on short circuits or abnormally high loads.

53. Can high-voltage cables without guarding be included in the same raceway as low-voltage cables?

No. 30 C.F.R. 75.807 requires underground high-voltage cables to be placed to prevent contact with low-voltage circuits. One way to prevent contact is to install a guard between the low-voltage cable and the high-voltage cables. The guarding must be grounded metal or reinforced non-conductive flame-resistant material.

54. The grounding resistor in my 4,160-volt longwall system limits the fault current to 0.5 amperes. Will I be required to replace this grounding resistor with one that limits the

fault current to 3.75 amperes.

No. The 0.5 ampere grounding resistor meets the requirement of the new regulation.

55. My longwall uses two power centers, one for 2,300-volt circuits and the other for 4,160-volt circuits. Which power center is required to have the main disconnecting device described in 30 C.F.R. 75.815(a)?

Either power center can have the main disconnect device. The power centers must be connected so that operating a single main disconnect device will de-energize all cables extending to longwall equipment from both power centers.

56. My longwall uses a 4,160-volt power center and a 950-volt power center. Must the main disconnect device described in 30 C.F.R. 75.815(a) de-energize both of these power centers?

Yes.

57. 30 C.F.R. 75.820 describes procedures for electrical work, troubleshooting and testing for all circuits and equipment associated with the longwall. What equipment is included?

This section applies to the longwall power center and all associated longwall equipment that receives power from the longwall power center. This section does not apply to low- or medium-voltage electrical equipment located in the longwall section, such as scoop battery chargers, dewatering pumps, and other equipment not directly associated with the longwall.

58. 30 C.F.R. 75.820(d)(3) requires gloves when troubleshooting circuits with voltages greater than 40 volts. Are gloves required when troubleshooting circuits less than 40 volts?

No.

59. 30 C.F.R. 75.821(a) requires testing and examination of the longwall equipment at least once every 7 days. 30 C.F.R. 75.512 requires testing and examination of all electric equipment at least weekly. How can I satisfy both requirements?

Testing and examination of the equipment every 7 days will satisfy both requirements.

60. 30 C.F.R. 75.821(b) requires testing and examination of each ground-wire monitor circuit once every 30 days. 30 C.F.R. 75.800-3 requires auxiliary devices for circuit breakers such as ground-wire monitors to be tested once each month. How can I satisfy both requirements?

Testing and examination of the circuit breaker and its auxiliary devices, including the ground-wire monitor circuits, at least once every 30 days will satisfy both requirements.

61. Are granted modifications of 75.1002 for use of high voltage longwall systems, existing on the effective date of the final rule, still to be followed?

No. As stated in the preamble of the final rule at 67 FR 10996 and as acknowledged in joint comments of industry and labor, all existing modifications of 75.1002 for high voltage longwall systems are superceded by the final rule. Operators are now required to comply with the provisions of the final rule.