

Emergency Response Plan Checklist

Operators of underground coal mines are required to develop an MSHA-approved Emergency Response Plan (ERP) before miners start work underground. This checklist outlines the basic contents of an ERP plan. Operators are encouraged to work with their MSHA district offices to develop and customize an ERP because individual situations may vary.

1) General/Emergency Response Procedures

- a) Pertinent mine information (mine name, MSHA ID, etc.).
- b) Current list of emergency contact phone numbers posted conspicuously in the mine office.

Procedures/methods to familiarize local emergency responders with surface facilities and functions they may be required to perform during emergency operations.

- c) MSHA notification of all on-site activities related to coordination of local emergency response.
- d) Statement that interpreters for non-English speaking miners/families will be provided in the event of an emergency.

2) Communication and Tracking Systems

- a) List manufacturer, model and MSHA approval numbers of tracking and communication system components.
- b) Follow manufacturer's recommendations for installation and maintenance.
- c) Install systems to prevent interference with blasting circuits and other electrical devices.
- d) Equip systems' surface components with standby power source(s) to ensure continued operation if the mine electrical power is interrupted.
- e) Confirm systems indicate when underground components are operating by line power or standby power.
- f) Establish the means to determine the charged state of standby power.
- g) Provide stationary components (infrastructure) with standby power sources capable of providing:
 - i. Communications — at least 24 hours based on a 5/5/90 system usage
 - ii. Tracking — at least 24 hours of continuous tracking operation
- h) For untethered communication and tracking devices, provide:
 - i. Communications — at least 4 hours in addition to the normal shift duration (12 hours total minimum duration) based on a 5/5/90 device usage
 - ii. Tracking — at least 4 hours of operation in addition to the normal shift duration (12 hours total minimum duration)
 - iii. Daily examinations — to verify in proper operating condition and have sufficient battery charge (See PPL P14-V-01)
- i) Develop description/drawing defining how the systems provide redundant signal pathways to the surface component(s).
- j) Provide system display capability for pathway interruptions/system malfunctions.
- k) Ensure method(s) of enhanced protection for components installed in areas vulnerable to damage (e.g., areas with adverse roof or rib condition, in front of seals designed for less than 50 psi explosion force, etc.)

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- l) Start repairs immediately and continue until the systems are restored to proper operating condition when a failure resulting in loss of communication/tracking occurs (including restoration of 24 hours of standby power for the systems). Notification to MSHA if material failure of a system has not been corrected after 12 hours.
- m) Examine the systems weekly to ensure they are maintained in proper operating condition, and make the examination record available for MSHA review.
- n) Define how the systems are configured to allow communication with and tracking of underground miners at the communication facility (required under 30 CFR §75-1600-1).
- o) Identify strategic areas in the mine. (See PPL P14-V-01)

3) Communication-Systems-only Provisions

- a) Provides two-way voice, text or both.
- b) Ensures that untethered devices are readily accessible to groups of miners working together or any miner working alone.
- c) Provides an audible, visual and/or vibrating alarm capable of being activated by an incoming signal.
- d) Capable of sending an emergency message to all untethered devices.,
- e) Provides a method for backup communication during component/system failures in the post-accident communication system.
- f) Capable of printing communications, message histories and other system data in a post-accident situation.
- g) Ensures communication coverage throughout the working section(s), along escapeways, and 200 feet inby and outby strategic areas.
- h) Identifies the two communication systems provided at refuge alternatives (§75.1600-3(a)).
- i) Provides a detailed description or basic system layout drawing to show the location(s) of system components.

4) Tracking-Systems-only Provisions

- a) Ensure that system components (e.g., readers) are capable of tracking the maximum number of persons, including visitors, expected to be in a coverage area.
- b) Verify that the system displays “low power” warnings of tracking devices (tags).
- c) Ensure updated miner location data at least every 60 seconds.
- d) Maintain data storage integrity if the data link between underground and surface components is disrupted.
- e) Include a time stamp on miner location data and store the data for at least 2 weeks.
- f) Ensure that the system is capable of printing a list of the last known location of all miners underground and other data in a post-accident situation.
- g) Uniquely identify each underground miner.
- h) Examine on a daily basis tracking devices worn by miners to verify they operate properly and have sufficient battery charge.
- i) Determine the location of miners:
 - i. Within 200 feet on working sections
 - ii. Within 200 feet of strategic areas
 - iii. Within 2,000 feet in escapeways

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- iv. Within 4,000 feet in belt entries, or at each belt drive if the distance between the drives is less than 4,000 feet
- j) Ascertain the miner's direction of travel at key junctions in escapeways.
- k) Include a reliable method of manual tracking that determines the current and historical underground location of miners assigned to work in bleeders or other areas of the mine that are not provided with electronic tracking coverage, and in areas affected by system or component failures.
- l) Prepare a detailed description or basic system layout drawing to show the location(s) of tracking system components.

5) Self-Contained Self-Rescuer (SCSR) Provisions

- a) List the type(s) and model(s) of SCSRs used.
- b) Record their type and location on the 30 CFR §§75.1200 and 75.1505 maps.
- c) Follow manufacturer recommendations for SCSR maintenance, routine examinations, storage and retirement of units.
- d) Replace retiring SCSRs with more technologically advanced units as they become commercially available and approved for use in underground coal mines.
- e) Test annually for reliability at least 1 percent of SCSRs (Units at the end of their service life may be used for this purpose).
- f) Store additional SCSR's in accordance with 30 CFR §75.1714-4.
- g) Storage of SCSRs when miners wear a device of not less than 10 minutes (§75.1714-2(g)).

6) Refuge Alternative Provisions

- a) List manufacturer, model and MSHA approval numbers of all refuge alternative units in use.
- b) Include all information required by 30 CFR §75.1507.