

2013



MINE CRISIS MANAGEMENT HANDBOOK

Mining and Industrial Safety Technology
and Training Innovation (MISTTI) Project

Wheeling Jesuit University

Funded by NIOSH/CDC



BE PREPARED: CHECKLIST SUPPORT

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Why a Mine Crisis Management Handbook and Checklist?



this part of the handbook before a crisis occurs.

This Mine Crisis Management Handbook is meant as a training aid to help prepare mine managers for a mine accident. The first part of the handbook provides checklists that command center personnel should follow when a mining accident occurs.

The second part of the Handbook provides more information about the responsibilities associated with each checklist. This backup material helps you understand what is necessary to effectively manage a crisis, including planning and training. Get familiar with

Supervisor Checklist

Certain crucial steps must be taken as soon as a serious mine incident occurs. Most companies have a written protocol that outlines which company officials will be notified and the order of the notifications. The company should immediately put into place the mine's emergency response plan, order the evacuation of the mine, and make immediate notification calls to the federal Mine Safety and Health Administration and the appropriate state regulatory agency.

The following steps are taken by a supervisor on-shift at the mine and are critical for the quick response needed to save lives.

- **Evacuation order.** The responsible person designated in the emergency response plan is required to conduct an immediate mine evacuation when there is a fire, explosion, or gas or water inundation that presents a danger to miners. Only properly trained and equipped personnel may enter the mine or remain underground.
- **Immediate notifications.** Mine officials are required to notify MSHA “within 15 minutes of the time at which the operator realizes that the death of an individual at the mine, or an injury or entrapment of an individual at the mine which has a reasonable potential to cause death, has occurred” (MSHA regulation 30 CFR § 50.10). Federal and state officials and Department of Homeland Security officials should also be notified. Your mine's emergency response plan (ERP) should have a complete list of personnel who should be notified along with their contact numbers. Local officials also must be notified. These include local law enforcement, emergency services, and medical facilities. Be prepared

ONE CALL TO MSHA

One call to MSHA is all that is necessary for mine operators to make. MSHA will notify support units in the event of an explosion, entrapment, or a mine fire lasting more than two hours. Emergency units will be deployed to the site, if needed, together with necessary equipment. These units include the mine emergency coordinator (MERC), MSHA's mine emergency unit (MEU), and MSHA's mine emergency technology team (METT).

with information about the possibility of serious injury and/or death. Provide an estimate of the potential number of victims.

- **Access company employee lists.** The mine company should maintain up-to-date employee lists that include the qualifications and certifications of every employee. Shift records should have a list of every miner at work at any time so that all employees who may not be able to evacuate can be located.
- **Record incident information.** Specific details of the incident should be recorded on the Supervisor Checklist along with numbers of miners affected.

Notifications

For immediate notification call the MSHA office at 1-800-746-1553. In West Virginia the state emergency notification number is 1-866-987-2338. Each state has a notification number. Your state notification number is _____.

EMERGENCY RESPONSE PLAN

The mine ERP at your mine is located at _____.

Command Center Checklist

The command center is the hub of rescue and recovery efforts following an underground mine disaster. A staff comprised of mine management personnel, federal and state officials, and in some cases union or miners' representatives forms the team that runs the command center.



The command center is the hub of rescue efforts. Image courtesy of Academy for Mine Training and Energy Technologies.

The command center site should be situated apart from other activities and where access can be controlled.

The location of the command center should be planned in advance and specified in the ERP. It should be secure from the media to ensure that officials managing the emergency can focus on the critical issues at hand.

Command center personnel activate specific areas where important emergency rescue tasks are accomplished efficiently. All areas have team liaisons who oversee the assigned duties of the section and report to the command center.

Specific sections or areas include:

- **Support center.** For mapping gas analysis and data and logistics coordination along with maintenance and other support activities.
- **Family center.** For family members to await news of their loved ones.
- **Media center.** For media personnel away from the family center to ensure family members' privacy. Its location also should not hinder command center operations.
- **Staging area.** For mine rescue team tasks and their deployment to the mine.

- **Triage area.** For emergency responders and their prompt medical treatment of injured workers. The area should also include all medical provisions. Access to transportation should be a key consideration.
- **Morgue.** For victims. The area should be located in a secure location away from other areas.

ELECTRONIC RECORDING SYSTEM

A multimedia electronic surveillance system captures a digital record of command center activities. As investigators later try to put together the pieces of what happened and why, they will need as complete a record as possible. Examples include audio and visual recorders.

The following sections describe four key tasks for establishing an effective command center. Careful consideration and planning before an emergency gives the best preparation for an effective response.

Setting Up the Command Center

The mine emergency command system is based on the standardized incident command system (ICS). Many fire departments and search and rescue units have adopted this system. This system establishes a common framework and practical procedures for responding to a mine emergency.

INCIDENT COMMAND SYSTEM

A key component of the incident command system is the modular organization, which allows responders to scale efforts depending upon the incident. The number of personnel in the command center and size of support centers will depend on the incident.

Command center officials are responsible for all decisions regarding mine rescue and recovery efforts, including scheduling, tracking rotations, determining methods of exploration or firefighting, and ascertaining when to deploy or withdraw rescue team members. Several important considerations are fundamental to setting up a command center. These should be addressed in pre-emergency planning to allow for maximum efficiency during an incident.

- **Designation of duties.** The responsible officials who come together in the immediate aftermath of a disaster designate which people are to perform the specific tasks that will allow officials to manage the crisis pending the arrival of high-level company officials and federal and state officials.
- **Communications equipment.** Depending on the scope of the emergency, the command center may receive a tremendous volume of information. Command center officials need dedicated communications equipment connected to underground and surface phones to ensure communication with surface and underground personnel. As explained more fully in the section on securing the command center, cell phones or other electronic communication devices other than those approved by the command center should not be permitted in the command center. This includes cameras and devices capable of taking pictures.
- **Officials in the room.** Determine which officials should be in the command center. Limit this number to as few individuals as possible but include a command center communications officer, a company representative, a state representative, a federal (MSHA) individual, a UMWA/miners' representative when appropriate, a mine rescue team trainer for each team that is underground, a recorder, and person or persons assigned to run errands for the command center.
- **Call logs.** Maintain an accurate log to track all times, conditions, activities, locations of personnel, and other information that is necessary in managing mine emergencies. The command center should have a large, digital wall clock to be used when making the official record of all activities.
- **Rotation schedule.** Establish a rotation schedule stating the recommended length of a shift for a communications officer, company officials, state and federal officials,

the recorder, mine rescue teams, support personnel, and others charged with decision making.

Establishing a Shift Schedule

It is necessary to establish a shift schedule to avoid stress and fatigue in rescue workers and emergency personnel. A shift schedule should be established as soon as possible following a mine emergency.

The initial stages of an accident require knowledgeable personnel in decision-making positions. It has been recommended that these officials be limited to a maximum of one 12-hour shift per day. Experienced mine emergency personnel recommend shifts of 8-9 hours with an hour of overlap time to transfer information from one official to the next. Stagger the transition times so that all personnel are not engaged in debriefing and information exchange at the same time.

Establishing a Chain of Command

It is important critical to establish a line of command, a fluid process for making decisions and assigning responsibilities, including who communicates with rescuers underground and who records events.

- **Delegation of duties.** As a matter of practice, a mine superintendent or other designated company official is at the top of the chain of command. This individual delegates duties to other people, who must know what their duties are, whom they report to, and who reports to them.
- **State and federal officials.** These officials can, by law, take charge of the operation if they deem it necessary, but normally their role is to consult with and advise

company personnel as to how the rescue and recovery work might best be carried out safely.

- **Rescue team captains.** Mine rescue teams are under the direct supervision of their team captains, who work with and communicate with the designated officials responsible for coordinating the work of the rescue teams.

Securing the Command Center

It is essential to secure the following during an emergency response:

- **Command center communications.** Control the flow of communications from the command center. Prohibit the use of cell phones or other electronic communicating devices and limit the use of phones and speaker systems to those officials designated by command center officials. The command center must be protected to prevent outside monitoring of conversations and to ensure that communications between officials in the command center and officials underground are not made public.
- **Access.** Post a gatekeeper outside the command center door to direct unauthorized persons to another area. One idea for making sure unauthorized persons are not allowed entry is to have tags ready with “CC Access Authorized” on them and a blank space in which to note the individual’s name and affiliation.
- **Information.** Everyone in the command center must understand that under no circumstances is information to be leaked.
- **Securing the mine.** Assign company personnel or police officers to secure and guard all roads or paths to the mine so that bystanders do not hinder mine rescue efforts. Authorized personnel should direct incoming traffic so that roads and paths are open for necessary personnel, supplies, emergency vehicles, and equipment.

WHEN THE WRONG INFORMATION IS REPORTED

The 2006 tragedy at the Sago mine was made even worse when, because of an innocent mistake, it was erroneously reported live to a national television audience that of 13 missing miners, only one had been killed. News reporters stated that the others were alive and were being brought out of the mine. For a brief time it appeared that the prayers of the miners' families and a watchful nation had been answered. Sadly, it wasn't so; 12 miners were dead. Only one survivor was clinging to life when rescue teams finally reached the barricade.

Setting up a Support Center

A support center should be established to assist in managing the emergency. Ideally, it will be located beside the command center. Support center officials are assigned to gather information and take care of organizational tasks, which assist command center officials in managing the emergency effectively. Some of the support activities may or may not occur inside the command center. Some tasks may be accomplished more efficiently in nearby locations. Decisions regarding the locations will be determined onsite by command center officials.

- **Support center staff.** The command center should designate a support center chief to evaluate data and information and communicate directly with the command center. Other recommended personnel include a mine rescue personnel coordinator, a recorder/mapper, a gas analysis and data coordinator, engineering support, a purchasing official, and a person or persons assigned to run errands, monitor readings, and handle other details.
- **Support center activities.** The support center chief directs gas analysis activities, coordinates efforts for mine rescue as authorized by the command center, and ensures proper record keeping and mapping.

- **Gas analysis and data collection.** Support staff plan and direct all activities related to data gathering and gas analysis, provide supplies and equipment necessary for gas sampling and analysis, and report findings to the support center chief.
- **Record keeping and mapping.** Support staff collect and maintain a complete and permanent record of all communications between the support and command centers and update the mine map to reflect any changes made by mine rescue teams.
- **Engineering support.** Engineering support staff provide engineering maps and plans of mining systems to assist in decision making, update engineering plans as emergency efforts proceed, and provide expertise to help address unexpected developments in rescue efforts.
- **Miscellaneous.** Persons will be assigned to run errands, monitor readings, and attend to other details to support the command center. It is a good idea to include a purchasing official who can cut through red tape when supplies are needed.
- **Coordination of mine rescue.** A mine rescue personnel coordinator, working under the direction of the command center, directs and implements mine rescue activities. This person ensures that sufficient numbers of mine rescue teams are onsite, works with mine rescue team captains to assign duties and schedule rotations, and ensures that the teams have necessary parts, supplies, and equipment.
- **Preparing for mine rescue efforts.** Support center officials must ensure that every possible preparation has been made to enable rescue efforts to function smoothly and efficiently. These preparations include the designation of a proper mine rescue staging area and making sure that arrangements have been made for food, lodging, and restroom and shower facilities.

The Issuance of a “k” Order

The law. Section 103 (k) of the Federal Mine Safety and Health Act of 1977 states, “In the event of any accident occurring in a coal or other mine, an authorized representative of the

Secretary [of Labor] when present, may issue such orders as he deems appropriate to insure the safety of any person in the coal or other mine, and the operator of such mine shall obtain the approval of such representative, in consultation with appropriate State representatives, when feasible, of any plan to recover any person in such mine or to recover the coal or other mine or return affected areas of such mine to normal.”

What the law means. When the order is issued, the mine is effectively under the control of MSHA. The company is still in charge of rescue efforts, but all rescue plans are subject to approval by federal and state officials.

Engineer/Mapper Checklist

Mine Maps

Current, updated maps, as required by state and federal law, should be readily available at the mine site. Extra copies of maps should be on hand. Everyone in mine management should be aware of where the maps are maintained.



Image courtesy of Academy for Mine Training and Energy Technologies.

Following is a list of maps that will be required to manage a mine emergency:

- **Wall maps.** Large wall maps of the entire mine are usually located in the foreman's room, but copies are also posted at every portal and in all conference and meeting rooms. The scale typically is 1:500 so that the maps are easy to read. At most mines surveyors conduct weekly surveys of active sections. Maps are updated weekly after the survey is completed, and the person doing the survey initials and dates the map. The wall map should include each working section, ventilation controls, air direction and quantity, mine fans, shafts, slopes, drifts, boreholes, escapeways, locations of safe shelters, and locations of caches of self-contained self-rescuers as well as critical surface features.
- **Section maps.** Section maps are usually located in the foreman's room and are maintained by the section foreman on each shift. Typically the maps are on a 1:100

scale. Management uses the section map to plan mining activities and to show where mining is occurring. The foremen mark these maps as accurately as possible, but it is important for surveyors to do weekly surveys to keep the scale accurate. Each shift is assigned a color to indicate where its crew has mined. That way, even if foremen come and go, the marking of the map remains consistent. It is imperative that the maps be marked at the end of every production shift in order to know where key equipment is located. Bad roof conditions and water accumulations should be noted on these maps. When a section has advanced beyond the boundary of the map or the section is completed, the engineering department should transfer all critical information to a map of the entire mine maintained in the engineering department.

- **Ventilation maps.** Federal and state regulations require ventilation maps and specify necessary information (MSHA 30 CFR § 75.372). These maps should include detailed information about ventilation controls and air direction and quantity. Most often ventilation maps are maintained in the engineering department onsite and, as required by law, should be kept in a fireproof repository on the surface. Management turns to ventilation maps in an emergency for additional details that may not be included on wall maps or sections maps.
- **Electrical maps.** These maps must contain the locations of all the components of the electrical system for the surface and underground systems. Electrical maps are required by law and are usually kept in the maintenance department and the engineering department onsite. It is important to keep them current because as the mining advances, the electrical system usually grows. Like the ventilation map, the electrical map is the “go to” map for an electrical problem when the wall map does not contain all the detail needed.
- **Surface maps.** The surface map details locations of critical surface features. It shows on scale the locations of all surface openings, fans, buildings, roads, boreholes, subsidence cracks, bodies of water, railroads, etc. The map should be current and maintained onsite in the engineering department.

- **Overlay and underlay maps.** In a mine emergency it is important to be aware of potential hazards above and below the mine. Overlay and underlay maps are particularly critical in Southern West Virginia, where over-mining and under-mining are common. These maps are maintained in the engineering department onsite.

WHAT THE LAW SAYS ABOUT MINE MAPS

Both federal and state laws address mine maps in great detail, stating specific requirements. MSHA map regulation 75.1200 requires the operator to keep up-to-date, accurate, scaled mine maps in a fireproof repository on the surface. Maps used to satisfy the 75.1200 requirements are referred to as 1200 maps.

WHY MAPS MUST BE UP TO DATE

The two most important maps for mine managers are the wall map and the section map. The wall map includes a combination of the information required by law and data that management deems necessary to effectively manage the mine. Large wall maps provide a snapshot of current conditions throughout the mine. It is essential that they are properly maintained. In an emergency management uses the wall map to assess the situation, and rescue teams depend upon the map to locate miners. The section map provides greater detail for particular areas of the mine.

It is crucial to keep all mine maps up to date. If they are not current, critical time may be lost in locating miners and essential rescue equipment, such as SCSR caches.

WHEN MINE MAPS AREN'T CURRENT

At the 2006 fire at Aracoma Alma #1, mine maps were not up to date. Rescue team members who responded to the Aracoma fire found the maps they were given to be inadequate. Ventilation controls that were in place were not noted on the maps. Conversely, ventilation controls were missing in locations where the maps showed they could be found. The best advice for crisis managers in this situation is to start with what is available and try to get updates as quickly as possible from supervisors or foremen who are off shift.

Recorder Checklist

The recorder in the command center is responsible for recording:

- Names of officials in the command center and assigned responsibilities.
- Times of phone call notifications to regulatory agencies.
- The arrival times for state and federal officials.
- Times of issued orders and amendments to those orders.
- Gas and data readings.
- The schedule for deployment and advancement of rescue teams.
- Reported conditions underground.
- Information provided by rescue teams.

Consider the following when recording information:

- **Details.** Records should be precise and detailed with the understanding that if an investigation takes place, the thoroughness of the recorded information will be vital in understanding and recreating what has occurred.
- **Template.** A template should be provided in the company's emergency response plan, which outlines the information the recorder must provide.
- **Common language.** The mapping system and communication system should allow for using a common language for areas that are being explored.

Rescue Operations Chief Checklist

Mine rescue teams operate under conditions that are unstable, dangerous, and unpredictable. Their focus is on preventing loss of life, rescuing survivors, and recovering bodies of fatally injured miners.

Teams can be called upon to perform a number of additional tasks, including exploring the mine,

removing or isolating ignition sources, building ventilation structures, and setting roof supports. The teams often include skilled emergency medical technicians and firefighters.



AVAILABILITY OF RESCUE TEAMS

Every underground coal mine must have rescue teams available for rescue and recovery work in the event of an emergency. Each mine with more than 36 employees is required to have an employee who is knowledgeable in mine emergency response on each shift and to have available two certified mine rescue teams whose members are familiar with operations of the mine (MSHA 30 CFR § 49.12). If the mine does not have its own teams, the operator must contract with other mines' rescue teams so that at least two mine rescue teams are ready to answer the call in the case of an emergency.

Rescue Teams

Federal regulations (MSHA 30 CFR Part 49) include the following provisions for rescue teams:

- **Proximity.** Rescue teams must be located no more than two hours ground time travel away from the mine.
- **Size of teams.** Each rescue team must have five members with at least one alternate. The team members must be properly qualified, trained, and equipped for underground mine rescue service.
- **Requirements.** Each mine rescue team member must have been employed in an underground mine for a minimum of one year within the past five years and must meet physical requirements for fitness to work for prolonged periods under strenuous conditions (MSHA training requirements for mine rescue teams 30 CFR § 49.18).

Equipment

Mine rescue team members must be fully equipped. Equipment includes:

- **Apparatus.** This includes self-contained breathing apparatus (SCBA), soda sorb for canisters, spare oxygen cylinders, oxygen pump/cascade system, SCBA testing kits, and equipment repair and replacement parts.
- **Safety equipment.** This includes cap lamps and chargers, multi-gas detectors, and personal protective equipment (hardhats, boots, etc.).
- **First aid.** Teams must have first aid supplies and lightweight, collapsible, and/or wheeled stretchers.
- **Miscellaneous.** Teams should have a variety of tools and a mine rescue trailer to transport equipment.

Gas Detectors

Regulations (MSHA 30 CFR § 49.6) require mine rescue teams to have gas detectors appropriate for each type of gas that may be encountered. They include:

- **Methane detectors.** These must be capable of measuring concentrations of methane from 0.0 percent to 100 percent of volume.
- **Oxygen detectors.** These must measure oxygen from 0.0 percent to at least 20 percent of volume.
- **Carbon monoxide detectors.** These must measure from 0.0 parts per million to at least 9,999 parts per million.

BRIEFING INFORMATION

Mine rescue teams must receive accurate, concise, and reliable briefing information from the command center in order to perform rescue and/or recovery duties in a safe manner. It is extremely important that rescue teams develop a standardized method of reporting gas readings to the command center and fresh air base.

Procedures

During an emergency mine rescue teams are assigned to a team area. The following considerations should be addressed:

- **Rotation schedule.** Mine rescue team coordinators should develop a rotation schedule for deployment of rescue teams called to the mine site. The rotation schedule should ensure that there is a clear worker order. Backup teams should always be available.
- **Work area.** A work area should be designated. The area should have work benches and an available water supply where apparatus equipment can be cleaned, tested, and prepared for use.
- **Support arrangements.** Arrangements should be made for food, restroom and shower facilities, and sleeping quarters for all mine rescue personnel. Generally, food is brought in and rooms are reserved at a nearby motel. If there are no motels close to the mine, arrangements should be made for sleeping quarters at the mine.

Preparation for Entry

Before anyone goes underground, it is important to examine mine openings to determine the safest route by which rescuers should enter the mine.

- **Presence of gases.** Test for the presence of gases, and assign someone to make ventilation checks. Teams should enter the mine by way of the safest intake airway.



Image courtesy of Academy for Mine Training and Energy Technologies.

- **Shaft mine.** In a shaft mine check the cage to make sure it is operating properly. To test an automatic elevator, run it up and down the shaft manually several times. Test for gases, smoke, or water in the shaft.

Debriefing

Before entering the mine, rescue team members are updated by a briefing officer and committee, generally composed of company and federal officials and sometimes state and union officials. The team is debriefed after returning to the surface. Assign someone to take accurate notes of the briefings and debriefings.

- **Assignment.** The rescue team captain should receive the team's assignment, which specifies areas the team will explore and what team members should note.

- **Map.** The team should be given up-to-date mine maps.
- **Back-up.** A backup team for each rescue team that is exploring inby should be stationed at the fresh air base. Optimally, a third team, or standby team, is ready and waiting on the surface.

Barefaced Exploration

Following some explosions, it may be possible to perform an initial “barefaced” exploration without using self-contained breathing apparatus.

- **When allowable.** Barefaced exploration should occur only when the ventilation system is operating properly and gas tests indicate that there is sufficient oxygen and no buildup of carbon monoxide, methane, or other dangerous gases.
- **Backup.** Station a backup crew with apparatus outside the area. They will be available to rescue their team members if it becomes necessary.
- **When to halt.** Stop barefaced exploration any time team members find disruptions in ventilation or when gas readings indicate the presence of noxious, irrespirable gases.

Fresh Air Base

A fresh air base is the base of operations from which rescue and recovery work advances into toxic atmospheres. The fresh air base should be located where there is positive ventilation, fresh air, and a fresh air travelway to the surface.



- **Location.** The fresh air base is generally established at the farthest point of exploration in fresh air. It is advanced as exploration proceeds. Image courtesy of Academy for Mine Training and Energy Technologies.
- **Exploration.** Teams equipped with apparatus are charged with continuing the exploration from the fresh air base.
- **Communication links.** The fresh air base also serves as a base of communications linking the mine rescue team, the command center, and support personnel. Therefore, it must be situated in a site that allows linkage by a communication system.
- **Supplies and equipment.** The fresh air base is outfitted with supplies and equipment for use during the rescue and recovery process, including gas testing devices and possibly firefighting equipment. Equip it with a map, first aid supplies, oxygen therapy equipment, and tools and replacement parts for self-contained breathing apparatus devices and non-sparking tools.

Fresh Air Base Coordinator

The fresh air base coordinator is responsible for establishing and maintaining orderly operations, supported by a committee comprised of state and federal officials and miners' representatives.

- **Communication.** The fresh air base coordinator maintains communications with the working rescue teams and the command center.
- **Oversight.** The coordinator oversees the activities of all personnel at the fresh air base and makes sure the base has a map of the affected area.
- **Notations.** The coordinator follows each rescue team's progress on the mine map and makes notations of findings as the teams report them. The coordinator checks the names or numbers of rescue teams going in by the fresh air base, logs times the

personnel enter and leave the fresh air base, and logs the time and nature of all telephone calls.

- **Advancement.** The fresh air base is advanced as soon as areas inby are explored, reventilated, and deemed safe.

Exploration

Exploration by teams under apparatus depends on the extent of the area involved and conditions within that area.

- **Gas tests.** Rescue team members conduct gas tests and assess conditions during the mine emergency.
- **Search for clues.** Rescue team members search for evidence of survivors, where fires may be located, or where survivors may have sheltered.
- **Location of survivors or bodies.** If teams locate survivors or bodies, they should immediately report this to the fresh air base, together with any significant conditions, materials, or evidence.
- **Recording.** All information discovered by mine rescue teams should be recorded on a mine map at the fresh air base and communicated to the command center.
- **Recovering the mine.** A third task of rescue teams is repairing ventilation and communication, commonly referred to as recovering the mine.

Debriefing at the Fresh Air Base

When rescue teams return to the fresh air base, the team captain confers with the fresh air base coordinator and the captain of the incoming rescue team to exchange information about conditions in the mine. The debriefing session gives rescue team members a chance to reflect on what they experienced underground. Often, details that did not seem important when exploration was occurring are revealed during the debriefing and turn out

to be significant. The debriefing session also allows rescue teams to make sure the markings on their maps correspond with the master map.

The information discussed at the debriefing should include:

- **Mine conditions.** The backup team should be aware of traveling conditions encountered, distance the team traveled, gases encountered, and roof and rib conditions observed.
- **Construction.** If the rescue team builds stoppings, the backup team should know their locations along with information about what remains to be done, supplies that were left behind, and suggestions for additional equipment that may be needed.

Public Information Officer Checklist

Command center officials should set up protocols for the media, determine what information should be released at appropriate times, and assign a qualified person to serve as spokesperson. Any release of information must be coordinated and controlled.

Information about the emergency. The following information should be discovered as soon as possible and updated as new facts become known:

- When the disaster occurred.
- What has happened—explosion, fire, water or gas inundation, etc.
- The number of miners in the mine.
- The number of miners safely evacuated.
- The number of confirmed injuries.
- The number of confirmed fatalities.
- The number of persons who are unaccounted for.
- Orders placed on the mine by MSHA or the state agency.

Additional information. Reporters and family members may want to know additional information, such as:

- When MSHA and state officials arrived onsite.
- The MSHA official in charge.
- The state official in charge.
- The officials in charge of rescue and recovery operations.
- The arrival times of mine rescue teams and special equipment.
- The status of any fire.
- The progress of mine exploration.

Briefing schedule. A briefing schedule should be established as soon as possible. It is important to immediately share milestone information, such as when miners are rescued, where victims are located, if safe shelters have been activated, if any communication has

been established with trapped workers, or if there are any impediments to rescue and recovery efforts.

Use of experts. Articulate and knowledgeable experts provide more in-depth information when necessary. These experts should be briefed by assigned spokespersons before addressing the media or family members. They should be able to present information concisely and clearly.

COORDINATING COMMUNICATION

Nothing in the MINER Act prohibits mine operators or state or local officials from establishing their own communication plan. However, Section 7(3) of the MINER Act of 2006 requires that MSHA serve as the primary communicator with the operator, members of the miners' families, the media, and the public. In any event, coordinate all communication efforts and strive to keep them as factual, consistent, concise, and informative as possible.

Concerns of Family Members

Company, state, and federal officials should make it a priority to meet privately with family members and share as much information as is available. It is important to follow a briefing schedule even when there is no news. Care should be given not to give family members false hope. A family liaison should be available to stay with family members at all times and to answer questions that arise between briefings.

Staging Area Checklist

Many logistical details require attention in the minutes following the disaster and should be taken care of as quickly as possible. These include:

- **Command center.** A previously designated location for a command center should be stocked with necessary equipment and supplies, including a phone system with multiple headsets, a recorder, computers, logbooks, mine maps, markers, etc.



Image: courtesy of Academy for Mine Training and Energy Technologies.

- **Support services:** A support center should have the necessary equipment and supplies to carry out all command center support activities with little notice.
- **Family center:** An area for family members should be designated. Comfortable seating, plenty of food, soft drinks and coffee, and additional areas for privacy should be prepared.
- **Media space:** A separate space for members of the news media and other outsiders should be set in a location far enough from the family center to allow family members privacy but accessible enough so that those who wish to speak with the media can comfortably do so.
- **Staging area:** Mine rescue teams must have an area to stage their operations.
- **Food and lodging:** Mine rescue team members will need food and lodging during the mine emergency response. Preliminary calls to local vendors and a log to record contact information will greatly aid setting up the services in case of an emergency.
- **Triage area:** A prepared area for triage will result in faster, more efficient medical care for injured workers

- **Parking and traffic control.** Someone should be assigned to traffic control and parking until law enforcement officials arrive. This person should then work with law enforcement officials to make sure traffic flows as smoothly as possible.
- **Mine supplies.** By law (MSHA 30 CFR Part 49.16), each mine section is required to keep on hand a specified amount of emergency supplies. Determine the location and quantities of critical mine supplies, including rock dust, timber, roof bolts, torches and oxygen tanks, and underground and surface transportation.
- **Restroom facilities.** Someone must be appointed the responsibility of ensuring that adequate restroom facilities are available for crisis management officials, family members, rescue team members, the media, and everyone else involved with the rescue.

Training and preparation are key to a rapid, efficient mine emergency response. Hopefully, the preparation will not have to be used except in practice situations.