1219-AB53-COMM-23

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF MINES, MINERALS, AND ENERGY

VIRGINIA RESPONSE

REGARDING THE CALL FOR COMMENTS ON PROPOSED MINE RESCUE TEAM RULES; IN COMPLIANCE WITH THE MINE IMPROVEMENT AND EMERGENCY RESPONSE (MINER) Act of 2006
ISSUED THURSDAY SEPTEMBER 6, 2007

Part IV
Department of Labor
Mine Safety and Health Administration

30CFR Parts 49 and 75
Mine Rescue Teams and Equipment
Proposed Rules

Commonwealth of Virginia
Department of Mines, Minerals, and Energy
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The Virginia State Designated Mine Rescue Program

Virginia's current practice provides for a unique approach to mine rescue team availability to underground mine operations. State Coal Mine Safety Laws, Section 45.1-161.73, provides for state-designated mine rescue teams. These teams, of which there are currently three in Virginia, are Coal Company mine rescue teams serving as state-designated teams through a contractual agreement with the DMME. Participating mine operators accept and receive, through a separate contractual agreement with DMME, assigned mine rescue team coverage that meets current MSHA Part 49 requirements from the state-designated teams. Mine operators pay fees that are deposited into a mine rescue fund and distributed annually in equal amounts to participating teams (less 10 percent for administrative costs). The contract provides that state-designated teams are deemed to be employees at the mine where the team is working; are entitled to Workers Compensation Insurance coverage; and provides liability protection for team members, absent gross negligence or willful misconduct. The contract also provides liability protection for the mine operators who provide personnel to the teams when teams are performing state-designated mine rescue duties.

Currently, 40 of the approximately 75 active underground mining operations in Virginia participate in the Virginia State-Designated Mine Rescue Program (SDMRP). These mines rely upon the SDMR teams to comply with MSHA Part 49 requirements. The remaining 35 underground mining operations are complying through provisions of their own company teams or through independent contractual agreements tied with their production for companies having mine rescue teams.

Because of the extensive "at-the-mine" training requirements and travel time reduction from two-to-one hour, the State has been informed that current

teams within the SDMRP will no longer be able to participate, thus eliminating Virginia's program unless the final rule addresses the issue.

Virginia recommends the final rule "grandfather" existing State Teams and State Programs from new MINER Act requirements related to "at-the-mine" training and the one-hour travel time. Information provided later in this report details Virginia's training concept to alter the Section 4 focus from "reactive" to "proactive" through specific miner training and a new training classification "Mine Emergency First Responder". We believe the mining industry would be better served by placing emphasis on miner training, mine preparedness and national research and development rather than to attempt to mandate requirements for mine rescue stations and teams.

Proposed re-organization of 30 CFR 49.

MSHA requests comments on the proposed re-organization of 30 CFR 49.

VIRGINIA RESPONSE

Virginia supports MSHA's re-organization change dividing Part 49 and distinguishing requirements for Underground Metal and Nonmetal Mines in Subpart A from Underground Coal Mines in Subpart B.

Possible different approaches to providing mine rescue services.

MSHA is also requesting comments on whether this proposed rule will result in different approaches to providing mine rescue services and, if so, what those approaches would be.

VIRGINIA RESPONSE

Virginia suggests the proposed rule could result in different approaches to providing mine rescue services:

1) Due to increased "at-the-mine" training requirements, many existing teams will be re-organized. Experienced mine supervisors and knowledgeable technical personnel who have volunteered their time and decision making expertise in the past, will be replaced with less experienced individuals who hold less critical positions.

2) Trained and experienced miners who are on mine rescue teams will be absent from their regularly assigned duties a significant amount of time due to the extensive training requirements, at-the-mine. Less experienced miners, filling in for absent team members, will increase the potential for serious personal injuries and higher accident frequency rate nation wide.

3) Because of the "at-the-mine" training requirements and capital costs, new "contract" mine rescue team businesses could emerge.

Regarding Training Criteria for State Employees

MSHA requests comments on this provision, particularly on allowing experience to substitute for 50 percent of the training requirements.

VIRGINIA RESPONSE

Virginia recommends alternate language and compliance criteria regarding State employees and/or State sponsored mine rescue teams.

First, team members of Virginia's proposed State-sponsored teams comprised of state employees would be classified as Technical Specialists rather than Inspectors. As such, team members would make underground observations to ensure their covered mines are compliant with MINER Act requirements.

Second, Team members of the State-sponsored mine rescue teams should be given credit on an "**hour-for-hour basis**", (up to the annual minimum training (64 hours) requirements under the MINER Act) with documented work hours associated with:

1. Participation, at least annually, with their mine rescue team "at-the-mine" training for covered mines (up to 56 "at-the-mine" hours)

2. Refresher training, at least annually, of MSHA's National Mine Rescue Rules conducted at the MSHA Academy or by a certified instructor. (8 hours required)

3 Participation at a local, State or National Mine Rescue Competition as an event organizer, field team leader, or field judge associated with competitions of pre-shift, bench, first aid, and/or mine rescue competition. (up to 32 hours)

4 Conduct training for mine rescue competition judges, first responders, mine rescue concepts for responsible persons, or mine emergency response development (MERD) drills. (up to 32 hours)

5 Conduct mine rescue concepts training for mine site, composite or other mine rescue teams. (up to 32 hours)

6 Conduct focused mine observations to ensure compliance with the provisions of the Mine Improvement and Emergency Response (MINER) Act of 2006. (up to 32 hours)

7 Other similar training or duties that would enhance their mine rescue knowledge and skills set as approved by the District Manager (up to 32 hours)

Virginia's response does not materially alter Table 49.11 within the preamble and proposed rules. Rather, it suggests further specific criteria for State-sponsored teams and State employees who participate on a Mine Rescue Team.

Regarding proposed Section 49.12(c) Alternative

Existing §49.2(c) requires mine rescue team members to have been employed in an underground mine for at least 1 year within the past 5 years. MSHA is proposing the requirement for underground coal mines as §49.12(c) and would add a provision specifically to implement the requirement in the MINER Act for members of contract mine rescue teams. The MINER Act requires that members of contract mine rescue teams have "a minimum of 3 years underground coal mine experience that shall have occurred within the 10-year period preceding their employment on the contract mine rescue team". MSHA also would waive the underground experience requirement for those miners on a mine rescue team on the effective date of the rule.

VIRGINIA RESPONSE

The proposed rule does not recognize existing States definitions or training requirements for an "experienced miner", nor does it recognize State's criteria for Rescue Crews or Mine Rescue Team members.

Virginia recommends to revise the proposed rules to include clear definitions of how new members can qualify to participate on a mine site team, a State-sponsored team, a Composite team, or a Contract team.

It is agreed that the mining environment is unique and has inherent risks; but the MINER Act has criteria for underground training and familiarity "at-the-mine" for all mine rescue team members for each covered mine. Why would the mining industry limit member participation on mine rescue teams as it struggles with an aging workforce?

While experience adds to greater decision making ability, does a trained paramedic or experienced fire fighter have to have employment experience "at-the-business-site" in order to respond to an emergency situation with others?

Virginia recommends that beyond "grandfathering in" existing mine rescue team members, minimum experience and training requirements be defined in the final rule for experienced miners or state employees who desire to join and serve on a mine rescue team. Virginia recommends alternative language for experience qualifications:

"***Mine rescue teams are composed of members trained in underground mine rescue techniques.***

Qualification as a member of a mine rescue team requires an individual that has participated in mine rescue training prior to the effective date of this rule <u>or</u> that meets the following minimum requirements.

The member is an "experienced" miner and desires to train and participate with a team at his/her local mine rescue station.

a) Each new "experienced" miner must be physically fit to serve, as certified by a licensed physician in the State for which the mine rescue station is located and passes pre-employment drug screening from a certified lab (11-panel urine test).

b) Each new "experienced" miner is required a minimum of **8** hours class room training regarding current National Mine Rescue

Rules, given by a certified instructor and/or organized by the State in which the mine rescue station is located.

c) Each new "experienced" miner is required to have the initial **20** hour mine rescue apparatus and techniques training.

d) Each new "experienced" miner is required to serve a probationary training period of **6 months**, during which time he/she will receive a minimum **24** hours "at-the-mine" training; with a minimum **12 hours** of that training time with their team, under oxygen.

Section 49.12(f) Available Within 1 Hour Ground Travel Time from the Mine Rescue Station

MSHA specifically requests information, from the mining community affected by this provision, on the number of additional mine rescue teams and stations that would be needed to comply with this new requirement. MSHA is particularly interested in:

1. How compliance would be achieved:
2. Location of new rescue stations
3. Make-up and composition of new teams; and
4. Any other information that might be useful

VIRGINIA RESPONSE

1. How compliance would be achieved?

Virginia supports the concept of mine emergency preparedness and "rapid response" by trained individuals and mine rescue teams to mitigate circumstance of a mine incident. Virginia suggests the coal mining industry can best be served by altering the focus of Section 4 from emergency response (reactive) to mine emergency preparedness (proactive). Virginia recommends the final rules adopt elements for Mine Emergency Preparedness in addition to "rapid response":

MINE PREPAREDNESS:

(1) Mine Emergency Preparedness Training could emphasize training for the "**Responsible Persons**" on each shift. Preparedness Training could ensure "responsible persons" have a functional skill set in activating the mine emergency response plan, emergency communications, underground systems, directing movements of miners and machinery underground, and accounting for individuals

underground during a mine emergency (minimum of 8 hours annually):

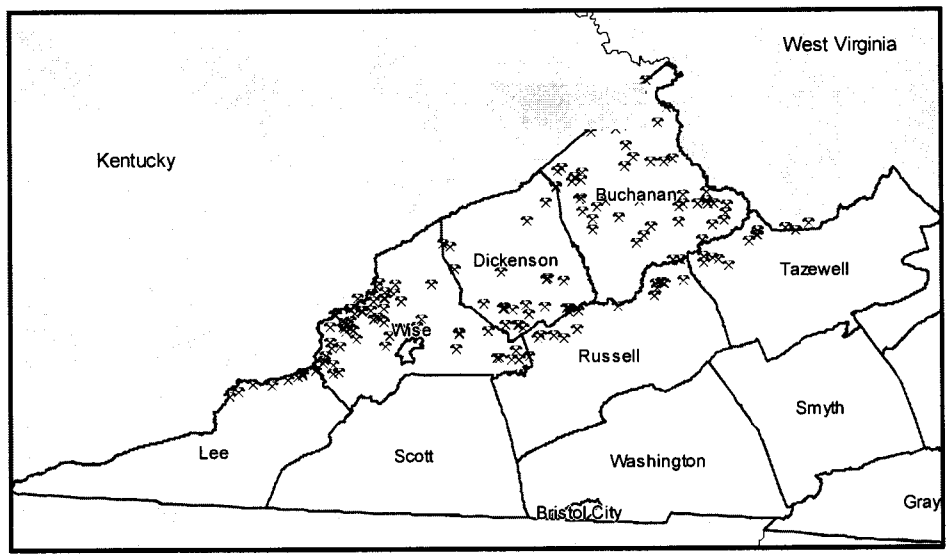
(2) Mine Emergency Preparedness Training could also include a second classification for "**Mine Emergency First Responders**". This special classification seems to fit the intent of the MINER Act by training individuals at each mine in mine emergency response concepts. Mine Emergency First Responders would receive annual training in how to respond to events at their mine and would provide the first response "triage" with mitigation of, or resolutions of, an event even before the responding mine rescue teams arrive on-site. These individuals would not be required to receive rescue apparatus or mine rescue training at the same level as a mine rescue team member nor would they necessarily be mine rescue team members. This group of trained Mine Emergency First Responders would establish a good pool of individuals from which future mine rescue team members can be drawn. Additionally, these individuals would likely be on-site and ably respond to a mine emergency within a few minutes.

2. Location of new rescue stations and,
3. Make-up and composition of new teams and,
4. Any other information that might be useful

Virginia's coal resources are concentrated in the far southwest part of the state and includes seven counties; Lee, Wise, Dickenson, Buchanan, Tazewell, Russell, and Scott (See Figure 1). For the most part, Coal resources are finite, remote, regionally clustered, and have been developed by small independent business operators. Virginia has

one active longwall mine that has two available teams. These award winning teams have been supported by nearby "composite" teams and those that served as part of Virginia's Sate Designated Mine Rescue Program. Unless final rules exempt or are changed to recognize States Programs, Virginia's SDMRP will no longer exist when Section 4 final rules become effective.

Figure 1



Virginia has historically ranked in the top 10 of coal producing states and reports about 30 million tons per year, of which 18 million to 20 million tons are recorded from underground mines. The underground mining community is unique, made up of about two-thirds small independent coal operators (see Table 2)

TABLE 2

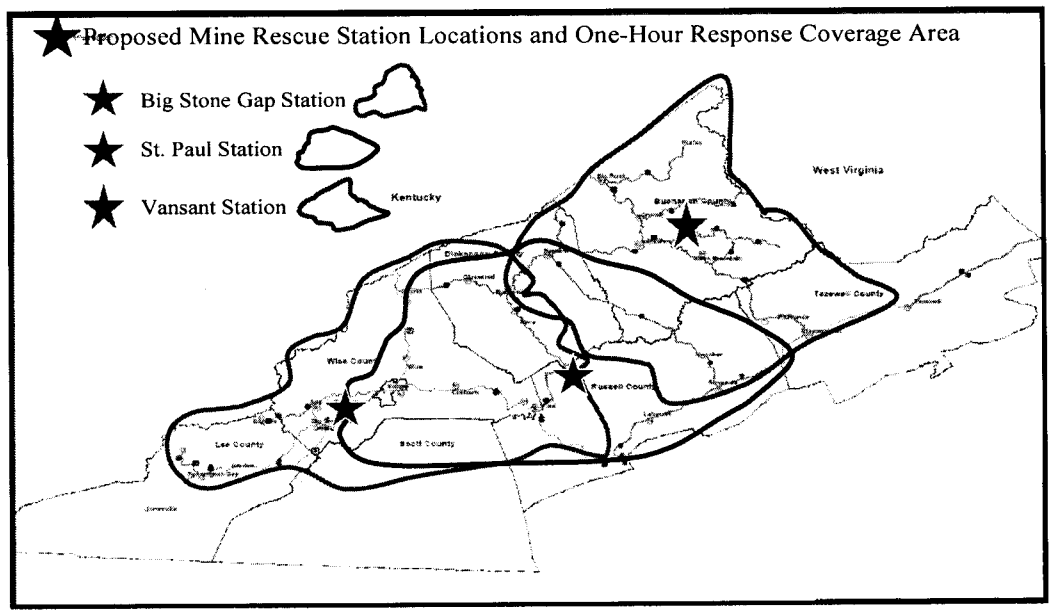
State	Total Underground Mines	Large Underground Mines (37 or more Miners)	Small Underground Mines (36 or less Miners)
Virginia	75	26	49

Without an allowance for existing State Programs within the final rules, compliance options to meet the one-hour travel time from a station to covered mines will likely result in 6 to 8 new mine rescue stations and 12 to 16 new teams in Virginia. It is possible that independent operators with multiple small operations will fund and establish their own mine rescue station. These independent company stations will purchase necessary equipment, form and train their own "composite" teams. The new independent operator stations would likely be located in Buchanan and Wise Counties.

Attempting to assist coal operations that have historically participated in the State Designated Mine Rescue Program, DMME has developed and proposed an option for compliance with Section 4 of the MINER Act and the proposed rule. This option includes the establishment of three new strategically placed mine rescue stations that would be managed by a State Mine Rescue Station Coordinator. These stations would be in addition to those already established and those likely to be established by the multi-mine independent operators. It is important to know, funding for the establishment of three new State managed stations is not in place. Funding solutions are being discussed but will be a difficult and significant challenge for Virginia. Without industry and legislative support, the proposed new stations and teams may not occur, leaving 20 to 25 small coal businesses at-risk for closure and the loss of 500 direct mining jobs and 2500 associated service jobs.

The location of the proposed State managed stations are shown in Figure 2:

FIGURE 2


Proposed Mine Rescue Station Locations and One-Hour Response Coverage Area
Big Stone Gap Station
St. Paul Station
Vansant Station
Kentucky
West Virginia
Tazewell County
Wise County
Russell County
Lee County
Scott County

Economic Feasibility and Mine Rescue Costs

MSHA is also interested in feasibility information, including economic feasibility. The Agency requests that commenter's include specific information, such as cost or technical capability, in support of their positions.

VIRGINIA RESPONSE

The Preliminary Regulatory Economic Analysis (PREA) for Proposed Rule on Mine Rescue Teams under estimates the costs to establish new mine rescue stations, transportation costs for off-site teams, equipment maintenance costs with increased training hours at-the-mine, and team member training. New station sites might include new property lease arrangements or land purchase costs. Security costs and climate control for all new mine rescue stations should not be overlooked.

A key safety concern and cost to operators is the loss of productivity, as team members from production or maintenance sections leave their normal work assignments to participate in required team exercises at covered mines. This requires operators to place less familiar crew members on equipment or performing new/different tasks as they substitute for absent mine rescue team members.

There are common accounts for the nation's underground mine operators in station expenses, equipment costs, and team/equipment transportation costs. Virginia anticipates that existing "mine-site" or large mine "composite team" stations will be upgraded as a result of the MINER Act 2006. Coal companies will likely hire additional safety professionals, absorb new capital costs for modern apparatus, team communications equipment, establish new team training centers and add fire-fighting gear for at least one team at each

station. Table 3 shows Virginia's capital cost projections as determined from discussions with mine rescue professionals and 2007 equipment quotes.

TABLE 3

STATION CAPITAL COSTS **Dollars in Thousands ($000)**	"Mine-site" Team w/ Available Station Space		"Mine-site" Team New Station		New Off-site Team w/ Available Station Space		New Off-site Team New Station	
	Low	High	Low	High	Low	High	Low	High
I. CAPITAL COSTS								
1 Station (Space) Capital Costs[1]	$ 40	$ 52	$ 263	$ 320	$ 85	$ 111	$ 283	$ 368
Subtotal 1	$ 40	$ 52	$ 263	$ 320	$ 85	$ 111	$ 283	$ 368
2 Station Equipment			$ 21	$ 28	$ 21	$ 28	$ 21	$ 28
3 Station Respose Vehicle					85	$ 128	85	$ 128
4 State Vehicles					26	$ 182	26	$ 182
5 Mine Rescue Equipment			286	$ 329	286	329	286	329
6 Station Fire-Fighting/Gear	63	72	63	72	63	72	63	72
7 Price inflation-guard	6	7	37	43	46	56	46	56
Subtotal 2	$ 69	$ 79	$ 407	$ 472	$ 527	$ 794	$ 527	$ 794
TOTAL COSTS	**$ 109**	**$ 131**	**$ 670**	**$ 792**	**$ 612**	**$ 905**	**$ 810**	**$ 1,162**

Annual Operating costs are dependent on several key factors and assumptions including whether the station is a mine site entity with available space for equipment or whether it is a new "off mine-site" building where land has to be purchased or leased and a building constructed to house the team, equipment and emergency vehicle. These scenarios were evaluated with low-to-high costs and reflect a low range of $146,000 per year to a high range of $975,000 per year. There are synergies if more than one station exists nearby.

TABLE 4

STATION OPERATING COSTS **Dollars in Thousands ($000)**	"Mine-site" Team w/ Available Station Space		"Mine-site" Team New Station		New Off-site Team w/ Available Station Space		New Off-site Team New Station	
	Low	High	Low	High	Low	High	Low	High
II OPERATING COSTS								
II-1 LABOR	$ -	$ -	$ -	$ -	$ 106	$ 697	$ 106	$ 697
II-2 MATERIALS								
1 Equipment / Maintenance Costs	$ 48	$ 50	$ 48	$ 50	$ 48	$ 50	$ 48	$ 50
2 Fire-Fighting Gear	5	5	5	5	5	5	5	5
3 Station, Vehicle, Transportation	80	107	111	139	80	107	123	197
4 Price inflation-guard	13	16	16	20	13	16	18	25
Total Materials	$ 146	$ 178	$ 180	$ 215	$ 146	$ 178	$ 194	$ 278
TOTAL COSTS	**$ 146**	**$ 178**	**$ 180**	**$ 215**	**$ 252**	**$ 875**	**$ 300**	**$ 975**

In summary, applying both the up-front capital costs and annual operating costs to establish and operate the 28 new stations mentioned in the PREA, the industry will be impacted by much more than $3 million per year, although the total costs will likely not impact the coal industry more than $100 million per year.

Section 49.13 Alternative Mine Rescue Capability for Small and Remote Mines

Existing §49.3 provides alternative capability for small and remote mines and is proposed as §49.13 for underground coal mines. Proposed paragraphs (a) and (c) (3) would be revised to be consistent with the 1-hour requirement of the MINER Act. These provisions would require 1 hour ground travel time from the mine rescue station to the covered mine and that the operator's application include the total underground employment of any mines within 1 hour of the operator's mine.

VIRGINIA RESPONSE

Virginia is impacted by Section 4 of the MINER Act in regard to the total number of small and remote underground mines. Virginia recommends the following language be included in the final rule:

1. If an underground coal mine is small and remote, located a distance exceeding one hour ground travel time from available mine rescue stations, that mine shall have a plan, approved by the District Manager, requiring two certified mine rescue teams which meet the following requirements:

   a. The mine rescue station shall be located not more than two hours ground travel time from the mine site;

   b. The plan shall address procedures for rapid notification, assembling of teams, and response.

   c. The plan shall also address responsibility for compliance with mine rescue team mandates by each participating mine.

d. State sponsored mine rescue teams made up of mine employees shall be considered state-sponsored and not a contractual team.

e. Members of the mine rescue teams shall meet all other applicable provisions.

Regarding proposed Section 49.18(b) Training of Mine Rescue

Although the proposal includes 64 hours of training, MSHA requests comment on the proposed 64 hour training requirement. Specifically, the Agency is interested in comment pertaining to whether the proposed amount should be increased or decreased in the final rule. Commenter's should specifically address:

(1) The rationale for the amount of training;

(2) The type of training;

(3) The number of hours of training that should be required for specific activities;

(4) The impact of such a requirement on the mining industry's ability to form additional mine rescue teams or retain current mine rescue team members.

VIRGINIA RESPONSE

A training plan approved by the District Manager that includes a total of 64 hours training is sufficient if properly focused.

Virginia supports the proposed rule which is consistent with the goals of the MINER Act. It would require all mine rescue team members, at least once during each 12 month period, to participate in training that includes wearing mine rescue apparatus while in smoke, simulated smoke, or an equivalent environment which could include training with glasses or training with face shields that reduce vision and simulate smoke.

Regarding proposed Section 49.20(b) Training at-the-mine

The MINER Act requires teams to participate in training at each covered mine. MSHA interprets this to mean that at least one of the training sessions must be conducted underground at the covered mine. The number of training sessions required at the covered mine would depend on the mine size and type of mine rescue team. In accordance with the MINER Act, the Agency includes the following chart to illustrate the required number of training sessions at each covered mine each year by mine size and type of mine rescue team.

TABLE 1.—FREQUENCY OF TRAINING FOR MINE RESCUE TEAM MEMBERS AT EACH COVERED UNDERGROUND COAL MINE EACH YEAR

Type of team	Mine size	
	Large (>36)	Small (≤36)
Mine Site	1 (annually)	2 (semi-annually).
Composite	2 (semi-annually)	2 (semi-annually).
Contract	4 (quarterly)	2 (semi-annually).
State-sponsored	1 (annually)	2 (semi-annually).

MSHA invites comment regarding this matter. Comments should explain any suggested alternatives, including supporting documentation and data. MSHA also invites comment on whether this training should be conducted underground at the covered mine.

VIRGINIA RESPONSE

Regarding training and experience "at-the-mine":

Should a mine emergency occur requiring multiple mine rescue teams to respond and an extended rescue time period ensues, can only those teams and team members who have trained "at-the-mine" participate in the rescue and recovery efforts?

Virginia recommends underground mine rescue is a "national standard" with rules and training requirements updated annually through MSHA after input from experienced mine rescue team trainers, States, MSHA trainers, MSHA's Mine Emergency Unit, and other Technical Specialists (NIOSH etc.) nation-wide.

The Final Rule should include language that is clear in allowing experienced/certified mine rescue teams to participate in an extended mine emergency when called upon.

Virginia recommends that any certified mine rescue team should be allowed to participate in an extended mine rescue or recovery effort after a suitable "briefing period" from company and/or unified command center officials, familiar with the mine, and circumstances surrounding the specific mine emergency.

A briefing period by the unified command center would allow teams who have not participated in "at-the-mine" training to gain specific knowledge of:

a) How the team is to function with the established unified command center
b) The mine site and mine rescue teams security and communications arrangements
c) The accounted-for miners, supervisors, or agency personnel that were underground at the time of the event or known circumstances of those not accounted for,
d) The mine history:
    (1) Regarding local geology and past geologic events,

(2) Regarding roof, floor, and rib conditions with an explanation of overlying or underlying mine works (with maps)

(3) Regarding the mine ventilation controls before the event (including ambient atmospheric levels) and current mine ventilation controls in-place to the fresh-air-base.

(4) Regarding the mine's history relative to mine fires, gas or water inundations and typical 24 hour methane liberation

(5) Regarding the mine power circuits and equipment location and known circumstances

(6) Regarding the mine's violation and accident history

e) The results of mine atmospheric monitoring efforts

f) The proposed mine rescue work schedule outlining expectations of the team at and inby the fresh-air base and who the inby and outby support teams will be

g) The location of resources available to each team so to accomplish their work

h) Issues regarding team safety underground and circumstances that would result in future evacuation orders

i) Issues regarding team lodging, food, equipment storage and maintenance during the event

j) Any other special circumstances

Regarding training at-the-mine, Virginia proposes that mine rescue teams should be familiar with each mine covered, however it is sufficient that one or two members of the team visit the mine and familiarize themselves with key systems information in order to properly brief other team members.

In a small mine environment, such as Virginia where the ventilation and other mine systems are basic and uncomplicated, training at-the-mine for an entire mine rescue team is not necessary.

Regarding proposed Section 49.20(b) Types of Mine Rescue

MSHA invites comment regarding the types of State relationships with teams and team members that would qualify the team members as "employees" and the team as "State-sponsored".

MSHA invites comment regarding the types of teams that are available to mines having 36 or fewer employees who could qualify to be a mine rescue team member and whether these mines should be able to use other types of teams, such as teams consisting of one miner per covered mine.

VIRGINIA RESPONSE

The MINER Act introduces new terms to describe types of mine rescue teams and training at covered mines. Virginia recommends the following changes:

1. **Mine-Site**...a team made up of team members who work at the mine and train at least annually at the covered mine.

2. **Composite Team**...a team that provides coverage for multiple mines and has two active employees from each covered mine who has knowledge of the operations and ventilation of the covered mine and train semi-annually at the covered mine.

3. **Contract Team (or Commercial Team)**...a team that is provided by an arrangement with another coal mine or with a third party. Members of a contract team mine must have at least 3 years

underground coal mine experience within the 10-year period preceding their employment on the contract mine rescue team. Contract teams would have to have knowledge of the operations and ventilation of the covered mine and train quarterly at large mines and semi-annually at small mines.

4. **State-sponsored Teams...made up of:**
   - State employees who train annually at the covered mine.
   - Mine employees who train annually at the covered mines.
   - Company teams under contract to the State, who are trained annually by the State, whose activities are coordinated by the State, and who are on call with the State to respond at covered mines.

Final rules should also recognize and "Grandfather" existing State Programs with adjustments for annual training that would not necessarily be "at-the-mine" but would include team reviews of their covered mines. Pertinent information such as the mine map, ventilation system, transportation system, fire fighting capabilities, and mine emergency response plan should be reviewed.