2006 Ohio Valley Mine Rescue Contest

June 14, 2006

STATEMENT

I am ________________, Superintendent of the Patriot No. 1 Mine. You will begin work at the fresh air base in the 1 Right off Main West Section. The 1 Right Section is being driven for a future longwall unit. The No.1 Entry is the intake entry, the No. 2 Entry is the belt entry, and the No. 3 Entry is the return entry. Air movement in the belt entry is outby from the faces and is coursed into a return through belt regulators.

Main West consists of five entries. The Nos. 1 and 2 Entries are intake entries, the No. 3 Entry is a belt entry, and the Nos. 4 and 5 Entries are return entries. Air movement in the Main West belt entry is outby from the faces and is coursed into a return through belt regulators. Two sections (1 and 2 Right ) were driven off of Main West. A shaft was holed into 2 Right for a future bleeder fan, but was capped until needed.
A five-man crew entered the mine on the midnight shift and traveled to the 1 Right off Main West Section to begin production activities.

At the conclusion of the midnight shift, the crew failed to return to the surface. Attempts to communicate with the section were unsuccessful. Mine rescue teams traveled into Main West in an attempt to reach the crew in 1 Right Section. The mine rescue teams explored all accessible areas of Main West, 2 Right and the bleeder entries driven toward 1 Right. They also explored the first four crosscuts into 1 Right, but had to retreat due to low cylinder pressure on their apparatus. They established a fresh air base in the 1 Right Section with an airlock in the No. 1 Entry for access from Main West without changing ventilation. Ventilation in 1 Right has been provided to the first line of crosscuts. A detailed map of the area explored and the conditions encountered was prepared by the teams.
The mine is ventilated by an exhaust fan on the surface. The fan is operating and must remain on to provide ventilation to the mine. The fan cannot be reversed.

All electrical circuits in the 1 Right Section have been de-energized, locked out and guarded.

The coal seam being mined is walking height and the roof is supported by roof bolts.

Two mine rescue teams will serve as back up while you are working. One team will be located at the neck of the 1 Right Section. They may remove the temporary stoppings across the Nos. 1 and 3 entries and rebuild the stoppings in the crosscuts between the Nos. 1 and 2 and 2 and 3 entries to provide ventilation to the 1 Right Section. The other team will be available to perform work in any other areas of the mine that have been explored. However, they do not have material or supplies to build any ventilation structures. They are limited to removing existing ventilation controls. You may request assistance from them through the Superintendent. Each request for assistance will take two minutes. The team will mark the changes on the map, initial the map, and present the map to the Superintendent who will notify them when the changes are completed. No additional work, including exploration, will be permitted during this two minute time period; however, apparatus checks can be made.
The solid line map of the Right Section is up-to-date.

Written instructions and the following mine maps will be provided when you are ready to work:

1. Two blank maps;
2. Two maps indicating the ventilation prior to the incident;
3. Two maps indicating the ventilation after the incident and the areas explored prior to your arrival.
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Problem
(Written Instructions)

ACCOUNT FOR ALL MISSING PERSONS

EXPLORE ALL AREAS OF THE MINE THAT CAN BE SAFELY EXAMINED
Ventilation Prior to Incident

Bleeder Shaft (Capped)

Bleeder Entries

2 - Right

Return Air Shaft (Exhaust Fan)

Intake Air Shaft

Main West

No. 5
No. 4
No. 3
No. 2
No. 1
Ventilation After The Incident And Areas Explored

Bleeder Entries

Return Air Shaft

Intake Air Shaft

No. 4
No. 3
No. 2
No. 1
No. 5

Bleeder Shaft Cap Blown Off

Unsafe Roof

Caved Airtight

FAB

Airlock

2 - Right

1 - Right

Return Air Shaft (Exhaust Fan)

Intake Air Shaft

Main West

Areas Unexplored
Outby Ventilation Change

-- Bleeder Shaft Cap Blown Off --

-- Bleeder Entries --

Changed first to prevent air flow through the unsafe roof at the cut through in the No. 3 entry of 1-Right Section

-- 2 - Right --

-- Return Air Shaft (Exhaust Fan) --

-- Intake Air Shaft --

Main West

No. 5
No. 4
No. 3
No. 2
No. 1
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1st Ventilation
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3rd Ventilation

No. 1
- Conscious
- Roof Bolting Machine
- CH4 - 1.1%
- O2 - 16%
- Build

No. 2
- Continuous Mining Machine
- CH4 - 7%
- O2 - 16%
- Shuttle Car
- Battery Scoop Car

No. 3
- CH4 - 7%
- O2 - 16%
- Open
- B.O.
PATIENT STATEMENT

(1ST Patient)

Help! Get Me Out.
Help! Get Me Out
It’s Airtight Behind Me