

**HARLAN SAFETY DAYS MINE RESCUE CONTEST  
SUPERINTENDENT STATEMENT  
JULY 25, 2012**

Thank you for answering our call for help. You are on the surface of the BCL Mine # 1. This area of the mine is an old shaft portal to an area that had been sealed. We are planning on going back into this area and develop new works.

This morning we sent five men in to continue to work on getting this area ready to run coal. At about 6 am, the foreman called out and said that they were finding elevated methane levels. Shortly after that, the outside man heard a loud noise coming out the shaft. He tried to contact the men, but got no response. He called me and I got everyone else out of the other areas of the mine. I then called MSHA and OMSL. I then called mine rescue teams. You were the first to respond, but now we have several other teams here. You have plenty of back up.

This area of the mine was ventilated by a blowing fan on a shaft four breaks inby this elevator/ventilation shaft. The incident caused the blowing fan to knock. We checked it and it is ok to turn back on. However, we left it off for now, but it is being guarded and monitored. The fan can be started and stopped, but don't stall it because it may cause damage to the fan. The fan cannot be reversed either. Whenever you want to start it or stop it, inform the superintendent of your intention.

While teams were responding, we had our maintenance check the elevator. It is ready to go. To enter the mine, just have everyone get in the elevator and you will be lowered to the bottom. To return to the surface, have everyone get back on the elevator and you will be brought back out.

This mine is approximately 8 feet high. There are some areas of bad roof, and this mine does make a lot of methane. We have had a little trouble with water, but not too much.

The mine map is up to date. There is a competent life line person to receive and return your signals if necessary. All authorities are on-site, and back up teams are ready. All electrical power is off, locked out and guarded.

Once your team goes underground, the Briefing Officer will be stationed in an airtight isolation area and you only will be able to contact him through your communication system.

Please find our missing friends. Good luck.



# **PROBLEM**

**ACCOUNT FOR ALL MISSING  
MINERS AND BRING SURVIVORS  
TO THE SURFACE**

**EXPLORE ALL AREAS OF THE MINE  
THAT CAN BE DONE SO SAFELY**

**LEAVE THE MINE SO THAT THERE  
ARE NOT ANY IRRESPIRABLE  
ATMOSHPERES LEFT IN THE MINE**

**YOU CAN ONLY CARRY TWO SETS  
OF BRATTICE CLOTH WITH YOU  
AT A TIME**

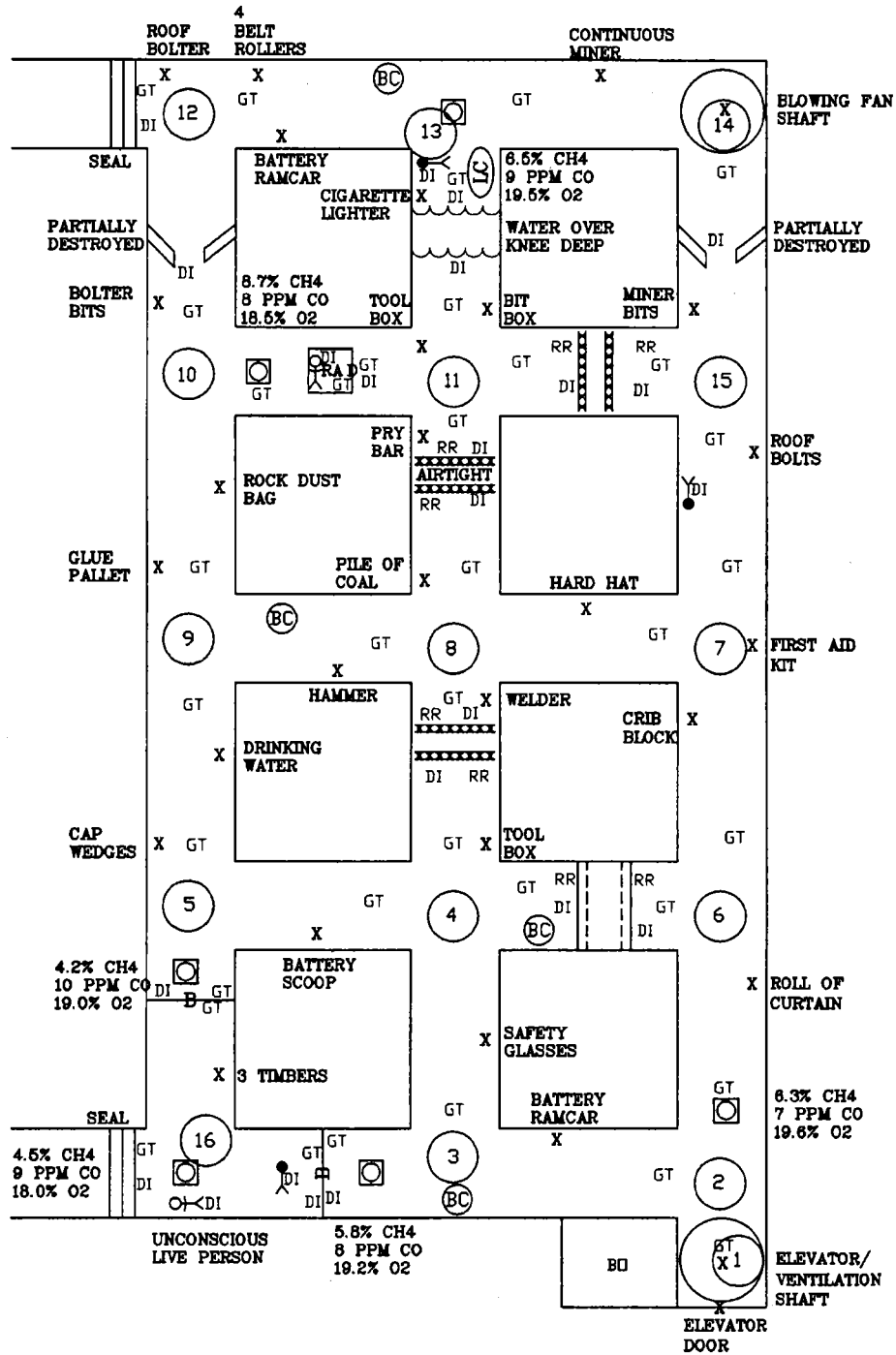
**YOU HAVE 80 MINUTES TO WORK  
BEFORE BEING REPLACED BY  
ANOTHER TEAM**

# **RA PATIENT STATEMENT**

**HELP! GET ME OUT OF HERE. I AM  
THE ONLY ONE IN HERE.**

# TEAM STOP

Scale: 1 inch = 20 feet



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**JUDGE'S BRIEFING**

**Fresh Air Base Exploration**

After the clock is started, the team will take a gas test (GT) in the opening to the mine. The only entrance into the mine is the elevator shaft.

**Team Stop #1**

When the entire team is on the elevator, the team will close the door. The team will be instantly on the bottom. At this time, the team will conduct a 50-foot apparatus check.

Also at this time, the briefing officer will be isolated from the team for the remainder of the problem.

**Team Stop #2**

The team will advance into the first intersection in the #3 entry. The team will find an explosive atmosphere inby the intersection. The team will make a GT in the opening inby and to the left of the intersection.

**Team Stop #3**

The team will tie across to the intersection in the #2 entry. The team will find a barricade to the left of the intersection with an explosive/irrespirable atmosphere in front of the barricade. There will be no response from behind the barricade. The captain will date and initial (DI) at the barricade, and a GT will be made at the barricade and in the opening inby the intersection in the #2 entry.

**Team Stop #4**

For purposes of this briefing, we will assume the team will advance up the #2 entry to the intersection in the second line of crosscuts. The team will find a caved area inby the intersection and an area of unsafe roof to the right of the intersection. The captain will make a roof and rib test (RR) at the caved area and the unsafe roof, and will DI at both areas. A GT will be made in the openings inby and to the left and right of the intersection.

**Team Stop #5**

The team will tie across to the # 1 entry. The team will find another barricade outby the intersection with an irrespirable atmosphere in front of the barricade. There is no response from behind the barricade. The captain will DI at the

barricade and the team will make a GT at the barricade and in the entry inby the intersection.

#### Team Stop #6

The team will travel back to the # 3 entry and advance to the second crosscut. The team will find the backside of the unsafe roof in the crosscut to the left. The captain will make a RR test at the unsafe roof and will DI the unsafe roof. The team will make a GT in the openings inby and to the left of the intersection.

#### Team Stop #7

The team will advance in the # 3 entry to the third crosscut. The team will make a GT in the openings inby and to the left of the intersection. The team will find a body in the entry inby the intersection. The captain must stop and touch the body before passing the body. The captain must DI at the body.

#### Team Stop #8

The team will tie across to the intersection in the #2 entry. The team will find the backside of the caved area in the entry outby the intersection and a caved airtight area inby the intersection. The captain must make a RR test at both caved areas and must DI at both caved areas. A GT must be made in the openings inby, outby, and to the left of the intersection.

#### Team Stop #9

The team will tie across to the intersection in the #1 entry. The team will make a GT in the openings inby and outby the intersection.

#### Team Stop #10

The team will probably advance in the #1 entry to the intersection in the fourth line of crosscuts. The team will find an explosive/irrespirable atmosphere in the crosscut toward the #2 entry, and will find a refuge alternative (RA) in the crosscut. There will be response from inside the RA. Since there is an irrespirable atmosphere in front of the door, the team will not be able to enter the RA at this time. The team must continue to explore. The team will make a GT in the entry inby the intersection and in the crosscut to the right. The captain must DI at the door of the RA and must take a GT at the door of the RA.

#### Team Stop #11

The team will tie across to the intersection in the #2 entry. The team will find the backside of the caved airtight area in the entry outby the intersection, a caved area in the crosscut to the right, and water over knee deep in the entry inby the intersection. The captain must make a RR test at both caved areas. The captain must DI at both caved areas and at the water over knee deep. A GT must be made in the openings inby, outby, and to the right of the intersection.

#### Team Stop #12

The team will probably advance up the #1 entry to the intersection in the fifth line of crosscuts. The team will find a seal in the opening to the left. The team will make a GT at the seal and in the opening to the right of the intersection. The captain must DI at the seal.

#### Team Stop #13

The team will tie across to the intersection in the #2 entry. The team will find a body in the entry outby the intersection. The captain must stop and touch the body before passing the body, and the captain must DI at the body. The team will find the backside of the water over knee deep in the entry outby the intersection. The captain must DI at the water over knee deep, and the team must make a GT in the openings outby and to the right of the intersection.

#### Team Stop #14

The team will tie across to the intersection in the #3 entry. The team will find a blowing fan shaft in the intersection. The team must make a GT in the entry outby the intersection.

#### Team Stop #15

The team will tie outby to the intersection in the fourth line of crosscuts. The team will find the backside of the caved area in the crosscut toward the #2 entry. The captain must make a RR test and DI at the caved area, and a GT must be made in the openings outby the intersection and toward the #2 entry.

At this time the team can ventilate the RA. SEE VENTILATION #1. After the RA is ventilated, the captain can open the door of the RA and take another GT. The atmosphere inside the RA will be clear. The captain and up to one other team member will close the outer door and open the inner door to reach the patient. The captain will touch the patient and DI at the patient. An initial assessment must be conducted of the patient. The team can now bring the patient to the surface. The team will travel out and back in the mine via the elevator shaft.

When the team re-enters the mine, the only other place to explore is inside the barricades in the #1 entry. The team can only ventilate the irrespirable atmosphere in front of the barricade in the #1 entry at this time. SEE VENTILATION #2.

#### Team Stop #16

After the team has ventilated the barricade, the team must airlock to go into the barricade. Once the barricade is breached, the captain must make a GT before

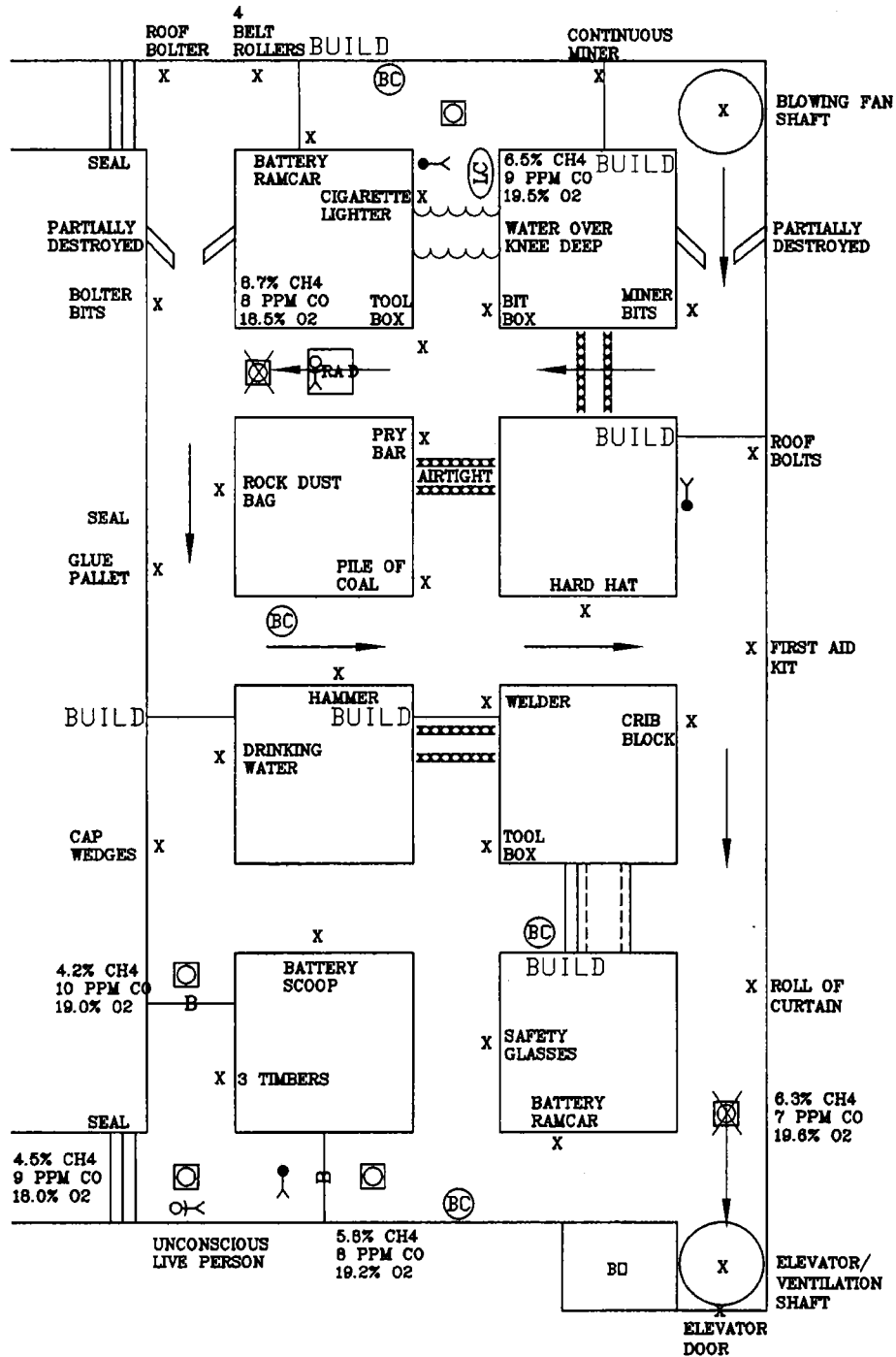


any other work is done. The team will advance to the intersection in the first crosscut. The team will find an unconscious live person in an irrespirable atmosphere in the intersection. The captain must stop and touch the unconscious live person before passing the patient, and must DI at the patient's location. An initial assessment must be conducted on the patient. Since the patient was found in an irrespirable atmosphere, a breathing device must be placed on the patient before moving the patient. The team will find a body in the crosscut toward the #2 entry. The captain must stop and touch the body before passing the body, and must DI at the location of the body. The team will find the backside of the other barricade in this crosscut. The captain must DI at the barricade, and the team must make a GT at the barricade. The team will also find a seal in the opening to the left of the intersection. The captain must DI at the seal and the team must make a GT at the seal. At this time the team will transport the patient to the surface via the elevator shaft.

Since the problem requires the team to leave the mine clear of irrespirable atmospheres, the team must re-enter to clear the gas in front of the last barricade. After timbering through the unsafe roof, the team can ventilate. SEE VENTILATION # 3. After the gas is cleared, the team can exit the mine and stop the clock.

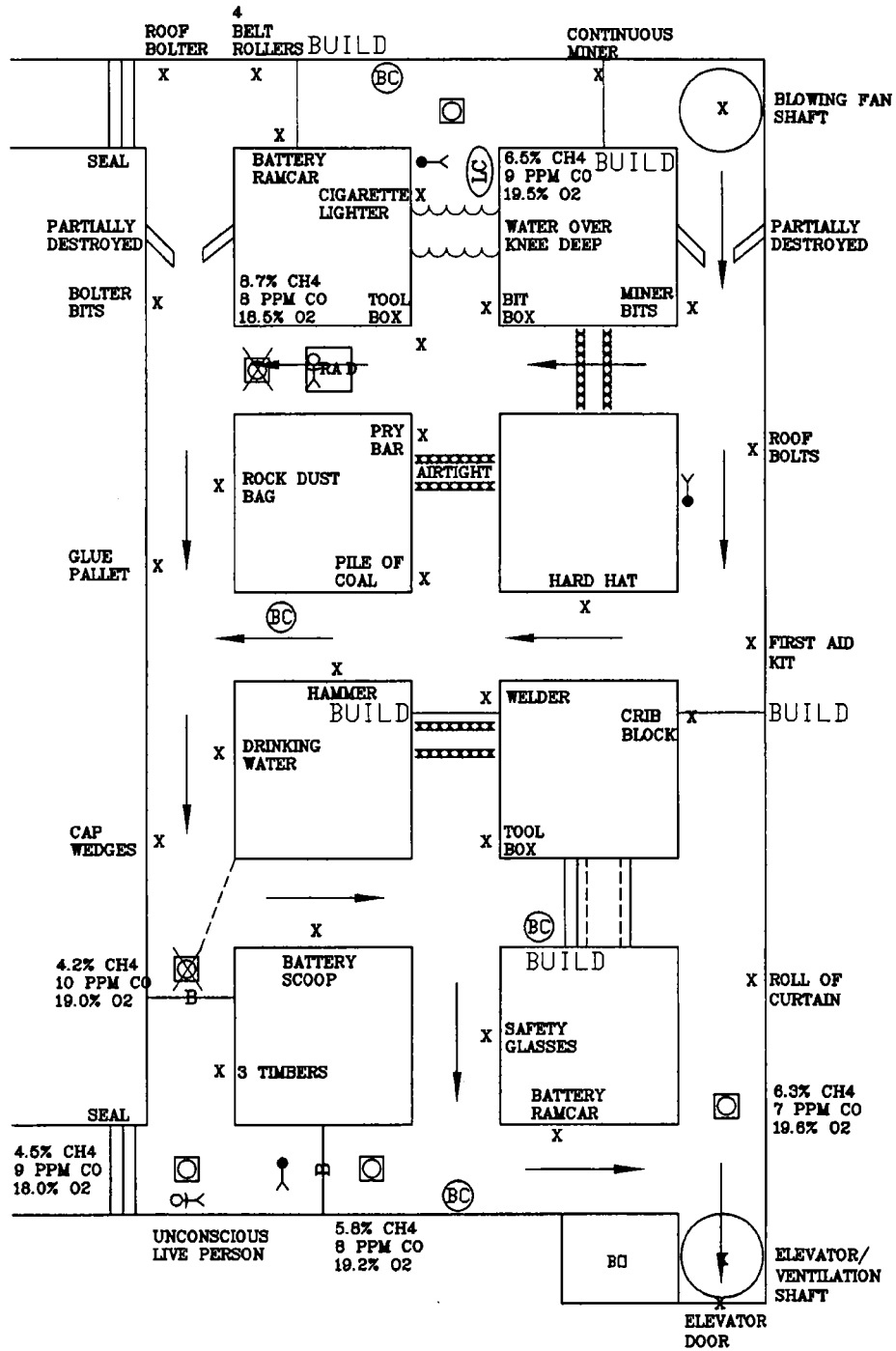
# VENTILATION # 1

Scale: 1 inch = 20 feet



# VENTILATION # 2

Scale: 1 inch = 20 feet



# VENTILATION # 3

Scale: 1 inch = 20 feet

