# 2014 KY STATE MINE RESCUE CONTEST DAY 1

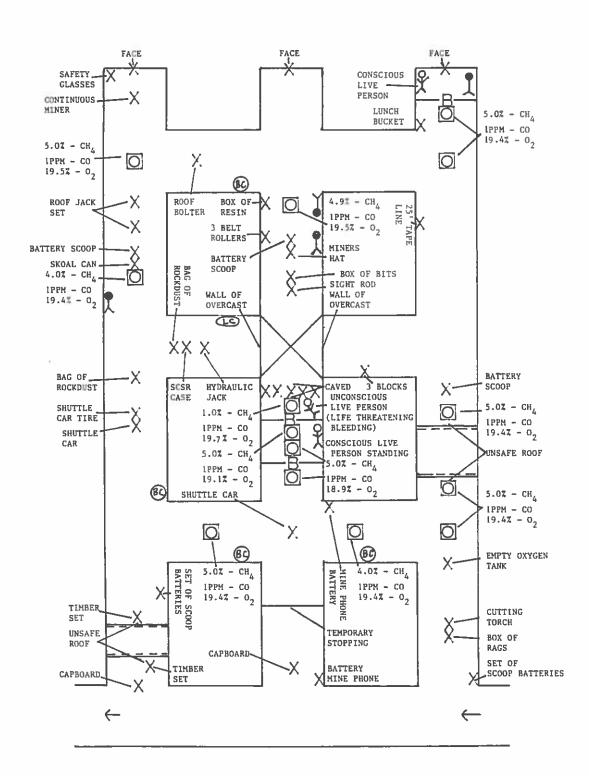
AUGUST 20, 2014

# KENTUCKY STATE MINE RESCUE CONTEST DAY 1 AUGUST 20, 2014

YOU HAVE 4 MINUTES TO POSITION YOUR EQUIPMENT. YOU MUST START THE CLOCK WITH IN 4 MINUTES OR THE JUDGE WILL START IT FOR YOU.

The KMI Mine thanks you for answering the call for help. You are located underground at the fresh air base established earlier today in our Number 1 mine. We had a 14 man crew that went in on second shift yesterday to produce coal on the number 4 working section. Equipment problems prevented them from producing coal so at the end of the shift 6 men and section foreman returned to the surface leaving a crew on the section to finish repairs on the roof bolter and catch up the roof bolting. Around three this morning The mine fan went down and the mine power knocked. Everyone was told to evacuate the mine according to the fan stoppage plan. Everyone safely evacuated except for the crew left on #4 section. Shortly after getting the fan restarted and the power back up, the RP tried to contact the #4 section. He has been unable to contact anyone on the section. Our attempts to enter the section were stopped by low oxygen and high methane readings, so we decided to call for trained mine rescue teams to check it out. The Mine fan is presently operating. It is an exhausting fan only and cannot be reversed. All outby areas and air courses have been examined and found to be safe to use for ventilation purposes. This mine has had a lot of problems with methane and the roof, but we have been able to control them. The mine maps are up to date except for anything they might have mined last night. According to the tracking system no one had left the section prior to the power knocking. The underground power has now been de-energized, locked and guarded. All regulatory agencies have been notified and are on site. A trained mine rescue team is on site to serve as your back-up. That is all the information available at this time.

Good Luck!

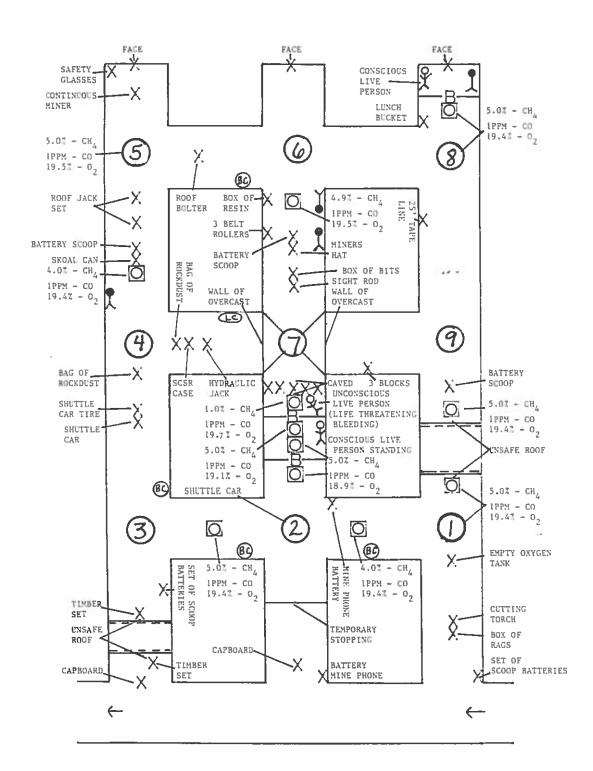


## KY State Mine Rescue Contest Day 1 – August 20, 2014 JUDGES BRIEFING

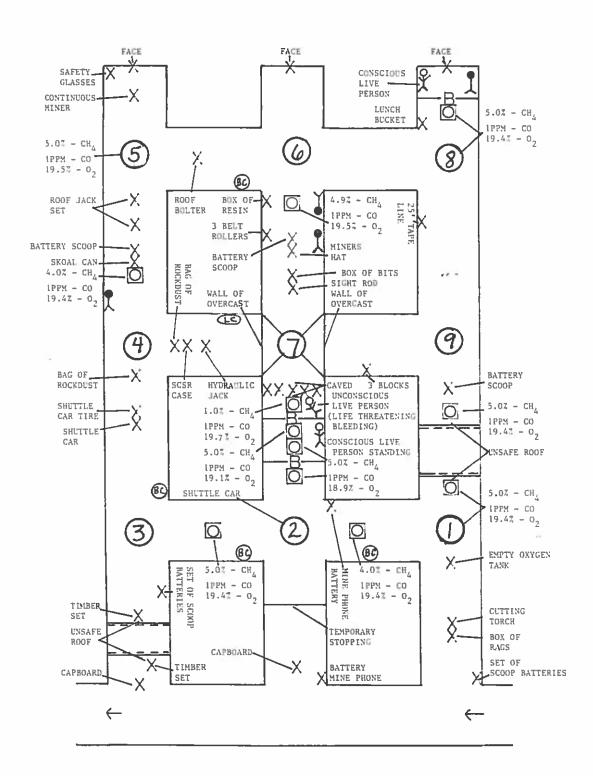
When the team enters the Fresh Air Base, the Supt. will introduce himself to the team captain and Briefing Office. The team will have 4 minutes to arrange their equipment, lay out life line Etc. If the team captain does not start the clock within the four minutes the Supt. will start the clock. The team does not have to unload and test stretchers. They must however check their gas detectors after the clock has started as well as their communications between the team and the B.O. Teams must go over standard lifeline signals with the lifeline judge unless wireless communications are used.

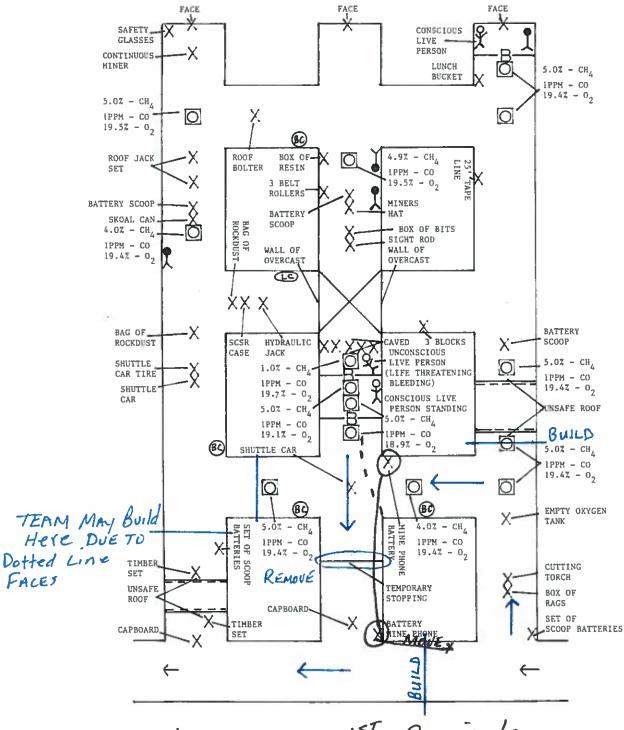
#### **WORKING PROCEDURES:**

The team is located underground at the Fresh Air Base. The captain will begin by examining the openings to the section. In #1 entry he will find an area of unsafe roof blocking the entry. A roof and rib test must be made at the unsafe roof and a gas test must be made in the opening. He must d&i the unsafe roof. In #2 entry he will find a temporary stopping across the entry. A gas test must be made in the opening. entry the captain can make up to the corner of the intersection and a gas test must be made in the opening before advancing to TEAM STOP #1 An apparatus check must be made at the first team stop with all team members underground. The captain will find an explosive and irrespirable mixture in the intersection and extending into the unsafe roof across the entry going inby. A roof and rib test must be made at the unsafe roof along with a gas test in the opening and the captain's d&I at the unsafe roof. To the left the captain will find that the explosive mixture changes to a non-explosive mixture. A gas test must be made in the opening before the team advances to TEAM STOP #2. The team will find the inby side of the temporary stopping in #2 entry where a gas test and the captain's d&I are required. In the crosscut to the left the team will find an explosive and irrespirable mixture. A gas test must be made in the opening. Inby in #2 entry the captain will find a barricade with an explosive and irrespirable mixture in front of it. The captain will d&I the barricade and a gas test must be made. A conscious live person inside the barricade replies that he is OK and that there is an airtight barricade behind him so it is airtight inside. At this point the team does not have a line curtain to ventilate the barricade and must continue to explore to TEAM STOP #3. At this stop the captain will find the inby side of the unsafe roof in #1 entry and must make a roof and rib test and d&I at the unsafe roof. A gas test must be made in the opening. Up the straight the captain can make up to the corner. A gas test must be made in the opening before advancing to TEAM STOP #4. Here the team will examine to the right finding a line curtain near the wall of an overcast. A gas test must be made in the opening and the



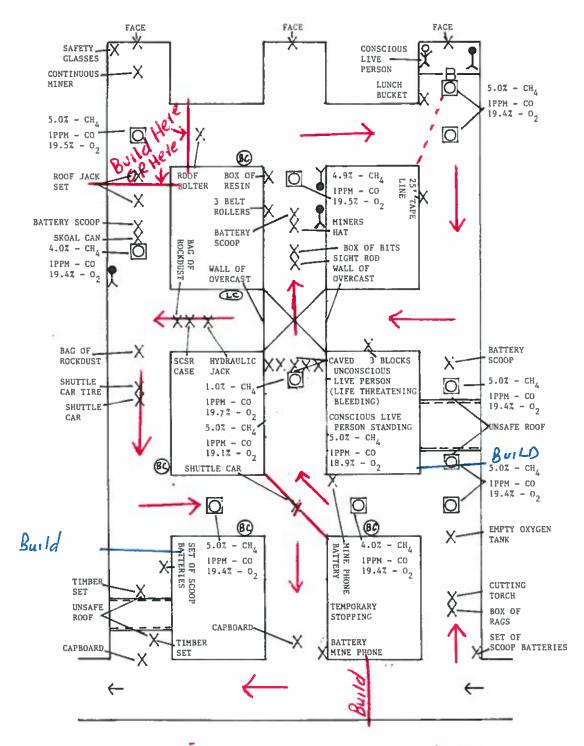
captain must d&I the wall of the overcast. Up the straight the captain will find a body that he must touch and d&i. A gas test must be made in the opening. Team may do anything at that team stop but must return to the barricade and rescue the patient they are verbally tied to, before advancing. (See Vent Map #1, Note: The battery mine phone and the mine phone battery must be relocated prior to ventilation change). Once the barricade is cleared, the captain will breach the barricade (No Airlock Required) He must make a gas test inside the barricade and will find explosive and irrespirable mixtures inside the barricade. The conscious man must be asked if he is OK and respiratory protection must be placed on him. He must be brought to the FAB. At this time the team may decide to breach the second barricade, but are not tied to it. If they do breach it they will have to ventilate it first, then breach it and find the unconscious person with the life threatening bleeding. If they decide not to breach it at this time they may still decide to ventilate it and clear the gas before advancing to TEAM STOP #5. In this crosscut the team has reached the two crosscut limit and the #5 man cannot advance inby the inby ribline until all accessible outby areas are explored. The captain can examine to the face making a roof, rib and face test. A gas test must be made and the captain must d&I the face. To the right a gas test must be made before advancing to TEAM STOP #6. The team will examine to the face where a gas test must be made and the captain must make a roof, rib, and face test and d&I the face. To the right a gas test must be made in the opening and outby the captain will find two bodies that must be touched and d&i. A gas test must be made in the opening before advancing to TEAM STOP #7. Here the team will be under the overcast and must take gas test and d&I the walls of the overcast. Outby the captain will find the caved area and must make a gas test, a roof and rib and must d&I the caved area. The team will now advance to TEAM STOP #8. The captain will find a barricade in the face of #3 entry with an explosive and irrespirable mixture in front of it. A gas test must be made and the captain must d&I the barricade. A conscious live person relays that he is OK and that it is airtight behind him. Since they cannot ventilate the barricade at this time the captain will explore outby, making a gas test before advancing to TEAM STOP #9, Here the captain will find the inby side of the unsafe roof requiring a roof and rib test and his d&i. A gas test must be made in the opening. In the crosscut the captain will examine to the wall of the overcast. A gas test and the captain's d&I are required. At this point the team must decide on ventilating. If the team has not breached the 2<sup>nd</sup> barricade just out by the caved area in #2 entry it must be ventilated and breached now. (See Vent #2 Map.) If it has been previously breached the team can now ventilate the barricade in the face of #3 entry. (See Vent Map #3). Once properly ventilated the barricade may be breached without airlocking. A gas test must be made, the body touched, the live man assessed and a roof and rib and face test must be made at the face. A gas test and the captain's d&i is required. Respiratory protection must be placed on the patient before bringing him out to the FAB. When the team returns to the FAB the problem is complete and the team may stop the clock.





VENTILATION IS THE SAME FOR 2ND Barricade IN #2 ENTRY BY JUST EXTENDING WING CURTAIN KYSTATE MINE RESCUE CONTEST

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VENTILATION FOR # 3 ENTRY BARRICADE

#### KMI AUGUST 20, 2014

#### WRITTEN INSTRUCTIONS

#### IF IT CAN BE DONE SAFELY:

- EXPLORE THE ENTIRE MINE
- ACCOUNT FOR ALL MISSING MINERS.
- BRING ALL SURVIVORS TO THE FRESH AIR BASE
- THE FAN CANNOT BE STOPPED, REVERSED OR STALLED.

#### **PLEASE NOTE:**

- YOU MAY ONLY CARRY TO BRATTICE CLOTHS AT A TIME
- LINE CURTAINS ARE YELLOW AND MUST NOT BE TWISTED TO BE EFFECTIVE.
- AIRTIGHT STRUCTURES MUST BE PROPERLY HOOKED ON BOTH SIDES.
- THE BRIEFING OFFICER WILL BE ISOLATED IN A NON-AIRTIGHT STUCTURE AT THE FRESH AIR BASE.

#### LIFE THREATENING BLEEDING

New for this year is the possibility of finding a patient with "life threatening bleeding".

In the problem for today the unconscious live man behind the barricade in # 2 Entry will have life threatening bleeding to his left wrist. Person placing patient must place the provided sticker on THE OUTSIDE OF THE LEFT WRIST. The team should find this condition during the patient assessment. The sticker needs to be in plain view, we are not trying to trick anyone by hiding the sticker. Rule #34 explains the procedures and discounts (2 for failure to complete each critical skill)

#### **Direct Pressure And Elevation:**

Apply direct pressure with a gloved hand Apply a dressing to wound (cover entire wound) and continue to apply direct pressure

Elevate the extremity except when spinal injury exists
When these steps are completed "Bleeding has been controlled"
If controlled, bandage dressing in place.

Patient may be loaded onto the stretcher and taken to the FAB once bleeding is controlled and bandage and dressing is in place.

Teams must have the required First Aid Supllies:

Gloves

4"X4" gauze pads or equivalent

Roller Bandage such as Kerlex or equivalent

#### 1<sup>st</sup> CONSCIOUS LIVE MAN STATEMENT (1<sup>ST</sup> BARRICADE IN #2 ENTRY)

HELP! GET ME OUT OF HERE. I AM OK, THERE IS ANOTHER AIRTIGHT BARRICADE BEHIND ME SO IT IS AIRTIGHT IN HERE.

### 2<sup>ND</sup> CONSCIOUS LIVE MAN STATEMENT (BARRICADE IN #3 ENTRY)

HELP! GET ME OUT OF HERE. I AM OK, THERE IS A SOLID FACE BEHIND ME SO IT IS AIRTIGHT IN HERE.