

2015 Southern Regional Mine Rescue Contest

New Iberia, LA.

May 5-7, 2015

Problem Solution

(See Solution Maps)

Synopsis: End of graveyard shift, the maintenance crew has been working to re-establish a shop on the 1800' level. The Operator recently purchased 4 haul trucks that will be cut up and sent down to this level for re-assembly. At the end of the shift a fire started at the main fuel storage located in the #2 entry. All but 4 miners escaped prior to the automatic fire doors closing in entry #1, #2, and #3. Fortunately enough personnel were on site to establish 2 full mine rescue teams. A FRESH AIR BASE has been established U/G at the #2 entry.

FAB

The teams will arrive at the FAB and have introductions, the team will also be informed that they will be able to string out their communication line but will not be able to check functionality until they have started the clock. Once the clock has been started the team will receive all of their maps and information. The mine manager will also provide update information about the location of 2 miners, the #3 fan, and communication with the underground.

Team Stop #1

Based on the location of the FAB the team may examine entry #2 first, identifying that they are in "Clear Air" and that immediately south of the FAB they identify a "Roll Down Auto Door (Closed)".

Team Stop #2

The team will explore west to the #3 entry identifying that they have remained in "Clear Air" and also direction and quantity of air flow in this access. The team will explore south in entry #3 identifying "Roll Down Auto Door (Closed)".

Team Stop #3

The team will explore east to Entry #1 identifying "Building Materials (one set)" on the south rib, "Clear Air", and another air flow placard. The team will travel south in entry #1, identifying "Roll Down Auto Door (Closed)".

Team Stop #4

At this time the team will most likely air lock in entry #1 to enter the door, the team will enter "Heavy Smoke" and should perform a (personnel or apparatus check before entering smoke). Travelling south the team will identify "Unsafe Roof & Rib in X-Cut #1 and "Caved Air tight" south in entry #1. This will be the teams' furthest point of advance at this time.

Team Stop #5

The team will retreat and travel to the #3 entry and build an air lock to enter this air door (personnel or apparatus check before entering smoke)., the team will travel south to the intersection, if the team stretched south they will identify a transformer W/2 Fire extinguishers next to it.

Team Stop #6

The team will travel east in X-Cut #1 to intersection of entry #2. Travelling north the team will identify the other side of the "fire door" and an "Office Door" the team will most likely knock on the door and "Jim (1000)" will inform the team that he is ok, the room is sealed, and he wants out (repeat). Due to the gas readings outside of the door, the team will have to ventilate in order to enter the office. The team will continue east, identifying the other side of the "Unsafe Roof & Rib", the team does not have any timbers

at this time to support the area and will continue exploration. Exploring south in entry #2 the team will encounter “Building Materials (one set)” and “Fuel Bay on Fire (Out of Control)”, with undue delay the team should erect a $\frac{3}{4}$ seal.

Team Stop #7

The team with undue delay attempt to identify the other side of the fire, travelling south in entry #3 the team will identify “Heavy Smoke” and a “Maintenance Jeep”, the team will look inside the jeep and identify “Jill (1100)”, when the team checks the miner, they will identify that the miner no longer exhibits any vital signs and has expired. Exploring south the team will explore to the 3’ mark which is also the face of entry #3 and make the appropriate markings.

Team Stop #8

The team will travel east identifying “2 fire extinguishers” and “Low Roof”, just on the end and before they can exit the low roof, the team will identify “Fuel on Fire” on the floor of the mine. The team will need to fight the fire under the low roof and will be able to extinguish the fire with 2 fire extinguishers utilizing the 2/3 sweeping method (must use 2). Once the fire is out the team will continue east to the intersection remaining in heavy smoke. With undue delay the team should explore north in entry #3 identifying “Building Materials (one set)” and the other side of the “Fuel Bay on Fire (out of control)”; with undue delay the team should erect a $\frac{3}{4}$ seal. Once the construction is done, the team will be informed that while fighting the fuel fire on the floor, their “Gas Man” sustained bad burns and is no longer physically able to continue. The team will retreat to the FAB and the #7 man will don an apparatus and go through the required checks.

Team Stop #9

The team will return to explore south in entry #2 to the 3’ mark which is also the face of entry #2. The team will explore the face of entry #2 and make the appropriate markings. Travelling east the team will identify “Fuel on Fire” on the floor of the mine. The team will be able to extinguish the fire with 2 fire extinguishers utilizing the 2/3 sweeping method (must use 2).

Team Stop #10

The team will continue east in X-Cut #2 travelling in “Heavy Smoke”, the team will travel north in entry #1 until they reach “Caved Air Tight”. The team will travel south in entry #1 identifying a “Ventilation Shaft Door (Open)” the team will only be able to explore to the 3’ mark inside entry #1. The team will be able to see a separation of “Clear Air” from the “Heavy Smoke”. The team will also see a miner at the face of entry #1 calling for help. The live miner named “Jay (1200)”, will be in the clear air. The team should realize that they will break the 2+3 rule if they enter to address the miner. **Note: The miner will not have a W-65 self-rescuer or SCSR and will not know how to use either one if the team tries to provide one for him. If the team coaxes the survivor to walk to them, the survivor will follow through with the request and the team will receive a discount for patient endangerment.** The team should realize that they will need to continue exploration to identify timbers to access the unsafe roof and rib area.

Ventilation Change to enter the Office (See attached map)

The team has explored all accessible areas of the mine to this point and will need to make a ventilation change.

- Travel to entry #2 and convert both $\frac{3}{4}$ seals to full seals
- Close the ventilation shaft door in entry #1
- Move the FAB to entry #3 or #1
- Open the fire door in entry #2
- Build a temporary stopping between entry #2 & entry#3 to protect the FAB and direct ventilation

Note: the team must use all of the air to clear the office door, if the team leaves the vent shaft door open the air will split and the office door will not clear (placard flip to “Light Smoke”). Also the team should not at any time move ventilation across the unsafe roof and rib area until it has been supported and explored.

Team Stop #11

Once the team has successfully executed the ventilation change and based on the fact that the team knows the conditions behind the office door, they can now enter finding Jim, the miner is uninjured and can walk out with the team. The team will also identify “10 Timber”.

Team Stop #12

Once the team has successfully transported the survivor to FAB, the team will travel to the “unsafe Roof & Rib” area and utilize the ground support techniques as outlined in the 2016 contest rule book. Mid way they will identify a body inside the supported area of travel, when the team makes their examination they will find “Jed (1300)” the miner no longer exhibits any vital signs and has expired. The team will finish supporting the unsafe roof and rib and tie in the area.

Team Stop #13

The team can now retreat to the ventilation shaft area in entry #1. The team will open the door and explore south to the face finally reaching “Jay (1200)”, the team will identify that Jay is not injured and can walk out with the team. Based on the gas concentrations the team will need to place the survivor under oxygen utilizing the proper donning procedures as outlined for the apparatus being used. The team can now walk the miner to the FAB and stop the clock. THE END