

Southwestern Regional Mine Rescue Contest
Taos, NM May 22, 2013

Problem Solution

1. The team will start at the FAB inside the mine.
2. The team will check for gases at the opening to all three entries. They will probably choose to enter the check curtains first. They can merely walk through either check curtain.
3. They will likely choose entry 1 first. The team will find the permanent stopping between entries 1 and 2. The No. 1 judge should tell the team captain that it will take one hour to tear down the permanent stopping. The team can go no more than 3 feet past the intersection of entry 1 and crosscut 1 at this time.
4. The team will choose entry 2 and find the water over knee deep.
5. The team cannot pump at this time. Dan Cash will communicate with the team ONLY when they are at the permanent stopping.
6. The team will have to air lock to explore entry 3. They can knock on the permanent stopping and communicate with Dan Cash. The No. 1 judge should tell the team captain that it will take one hour to tear down the permanent stopping.
7. The team can proceed into the mine now. They find the parts room door closed. Jim Swan will communicate with them if questioned. The team cannot remove him yet due to toxic gases in crosscut 2.
8. The team proceeds north in crosscut 2 and explores back to water over knee deep. They can merely walk through the check curtain. The team cannot pump at this time. Dan Cash will communicate with the team ONLY when they are at the permanent stopping.
9. The team continues north in crosscut 2 and finds a telephone and the office door closed. No one answers from the office.
10. The team proceeds west in entry 1 to tie-in where they stopped when first entering the shop earlier.
11. The team retreats back to entry 2 and finds the 30-inch vent hole spewing smoke. Teams may attempt to seal the vent hole but never succeed.
12. The team now has to ventilate before taking Jim Swan out of the parts room. However, they can pump water and take Dan Cash out any time. The team must use the phone and get permission from the mine manager to turn on the power or ventilate.
13. Let's assume the team pumps water and takes Dan Cash first. The team has to turn the power box ON then ask Dan Cash to turn the pump ON. Dan Cash will communicate

with the team ONLY when they are at the permanent stopping. They can then walk Dan Cash out entry 2 directly to the FAB. Taking Dan Cash any other direction is a dock.

14. The team must now explore the area north of the water over knee deep since it is accessible. If they don't explore now, they will violate the 2+3 rule when they enter the shop office or parts room later.
15. Now the team will decide how to ventilate and call the mine manager in his office for permission to change ventilation. The only available phone is near the shop office.
16. The team will open the temporary stopping in entry 3 and open the check curtain in entry 1. They will build a temporary stopping in 100 north entry either between entries 1 and 2 or between entries 2 and 3.
17. If the team builds a temporary stopping in 100 north entry between entries 1 and 2, they will also have to convert a check curtain in entry 2 to a temporary stopping in order to protect Dan Cash, if he is still there. Not doing so will push toxic gases through the check curtain and endanger him.
18. The air in front of the parts room will now clear and Jim Swan can be walked out entry 3. Taking him any other direction will be a dock for moving him away from the FAB.
19. The air in front of the shop office has not cleared unless the team built a temporary stopping in front of the 30-inch vent hole to stop the smoke and toxic air from coming up the hole. They can do this now or when they do the other ventilation changes.
20. Once the 30-inch hole is isolated, the air clears in front of the shop office. The team can enter the shop office and complete exploration of the faces.
21. Watch that the team goes back and explores the area north of the water over knee deep.
22. The fan at shaft No. 2 is never repaired and cannot be turned ON.