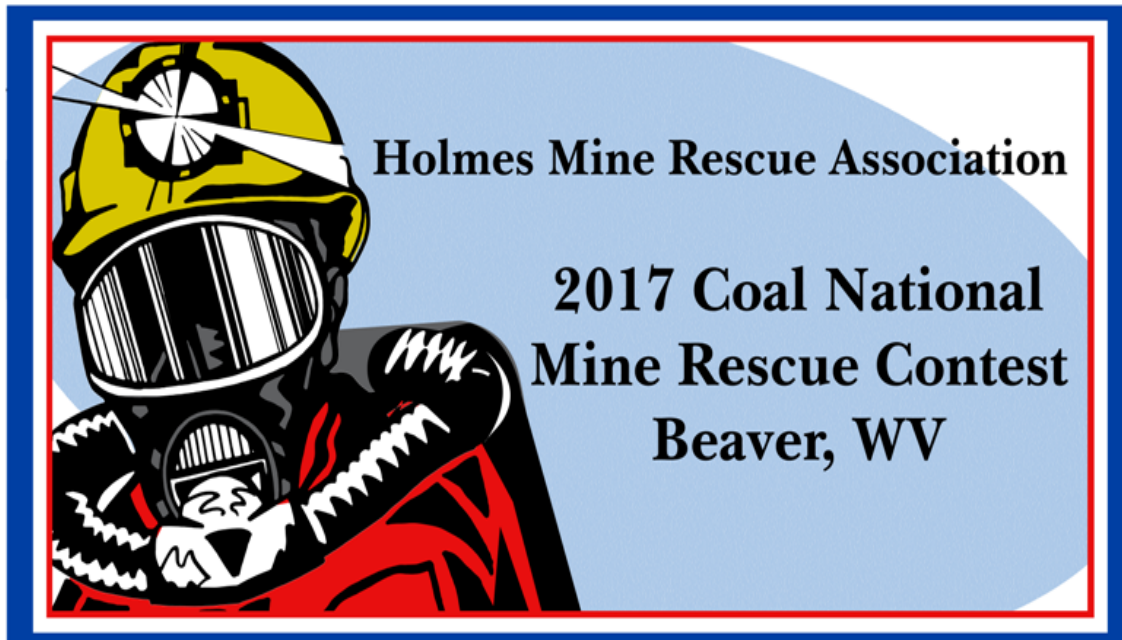


MINE RESCUE

DAY 2



NATIONAL MINE HEALTH & SAFETY ACADEMY

September 13, 2017

2017 National Mine Rescue Contest
Day 2 Superintendent Statement
September 13, 2017

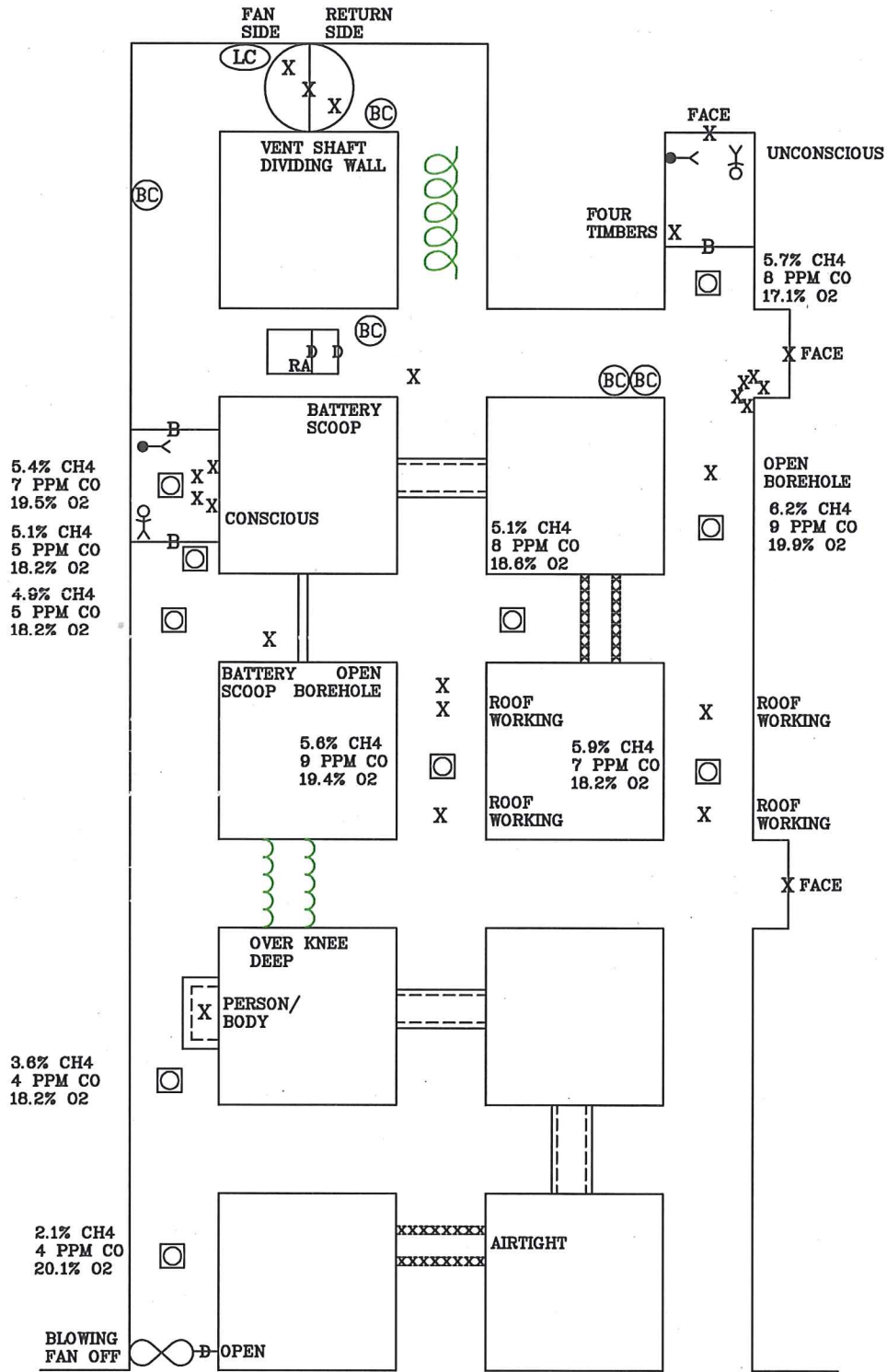
Thank you for answering our call for help. We are a small operation that just started this mine in from the drift mouth a few weeks ago. We operate one production shift and one maintenance shift a day, with no third shift. We had just cut into a split compartment ventilation shaft that will be shown on the up-to-date maps you will be provided. We were working on the 5th crosscut inby the drift mouth.

This morning, after the Preshift exam, we sent in 9 men to continue production work. About 7:45 am, we heard a loud noise and the blowing fan at the drift mouth went off. Four of the men came back outside and said there was a bad ignition up where the shaft had been cut into. We tried to communicate with the rest of the men, but got no answer. The tracking and communication system stopped working also. We don't have any experience dealing with explosions so we called for help immediately. All the state and federal people are here and you have teams to back you up.

This coal seam has a lot of bad roof conditions, but doesn't have much water problems. It is a gassy seam, too. The underground power is locked and tagged out. The blowing fan in the drift mouth is still off, but the command center can turn it on if you need it. The blowing fan on the ventilation shaft is under construction and is not yet ready for use. We will let you know when and if it can be used.

We have a person to help with your lifeline should you need it.

Please find our missing miners. Thank you and good luck.



PROBLEM

LOCATE ALL MISSING MINERS

BRING SURVIVORS TO THE SURFACE

BLOWING FAN IN #1 PORTAL CANNOT BE
REVERSED

DO NOT STALL THE BLOWING FAN IN #1 PORTAL
VENT SHAFT BLOWING FAN IS STILL UNDER
CONSTRUCTION AT THIS TIME. YOU WILL BE
NOTIFIED WHEN AND IF THE FAN IS
OPERATIONAL

TEAM CAN CARRY ONLY 2 SETS OF BUILDING
MATERIAL AT A TIME WHILE ADVANCING OR
RETREATING

YOU HAVE 75 MINUTES TO WORK BEFORE BEING
REPLACED

BARRICADE
PATIENT STATEMENT

HELP!! GET ME OUT

2017 National Mine Rescue Contest

Judges Briefing

September 13, 2017

Surface/Fresh Air Base

After clock is started, teams will make all three openings up to the imaginary line of the first intersection or until an object/condition blocks their travel. Teams will find a clear entry in the #3 opening, a caved airtight in the #2 opening, and a fan and an open door in the #1 opening. Just inby the fan is a contaminant. Teams must advance in the contaminated or adjacent entry. Since the #2 entry is blocked, teams must advance in the #1 entry. Teams must make a Roof and Rib (RR) test and Gas Test (GT) at the caved airtight, and Gas Tests in the other two openings. Captain must Date and Initial (DI) on an index card and lay at the caved area.

Team Stop #1

Teams will travel to the first crosscut in the #1 entry and conduct their 50 foot apparatus check. Teams will find an irrespirable atmosphere in the entry inby, along with a person under elongated unsafe roof. Teams can't reach the person at this time. Note the irrespirable atmosphere is over the missing person, so it cannot be ventilated until he is reached. Roof and Rib (RR) tests and Gas Tests (GT) must be made at the required locations (see Dates and Initials, Gas Tests page and Roof and Rib page.)

Team Stop #2

Teams will tie across to the #2 entry in the first crosscut. Inby and to the right they will find unsafe roof, and outby they will find the backside of the caved airtight. RR tests and GTs must be conducted at all three areas, and the captain must put his/her DI on an index card and lay at the areas.

Team Stop #3

Teams will most likely travel up the #1 entry to the second crosscut. Teams will find water over knee deep to the right. GTs and DIs must be made at required locations.

Team Stop #4

Teams must travel back out of the mine since they reached their two break limit and travel up the #3 entry to the first intersection. Teams will find the backside of the unsafe roof to the left. GTs and RR must be conducted, and the captain must DI at the unsafe roof.

Team Stop #5

Teams will most likely advance up the #3 entry to the second crosscut. Teams will find a room neck and face to the right, an explosive/irrespirable atmosphere inby, and two areas that say Roof Working. GTs must be made in the left and inby openings, and a RR, GT, and DI must be at the face to the right.

Team Stop #6

Teams must tie across to the #2 entry. Teams will find the backside of the unsafe roof outby, the backside of the water over knee deep to the left, and an explosive/irrespirable atmosphere and two areas that say Roof Working inby. There is an open borehole that stops the extent of the gas inby. RRs, DIs, and GTs must be made where required.

Team Stop #7

Teams will most likely travel up the #2 entry to the third crosscut. Teams will find a permanent stopping to the left, an unsafe roof area inby, and an explosive/irrespirable atmosphere and a cave area to the right. Team must make RRS, DIs, and GTs where required.

Team Stop #8

Since teams must travel contaminated or adjacent entries, teams will have to travel up the #3 entry to the third crosscut. Teams will find the backside of the caved area to the left, and an explosive atmosphere inby. There is an open borehole inby the gas that stops its extent. At the very inby right rib there is a curved caved area. RRs, GTs, and DIs must be made where required.

Team Stop #9

Teams will most likely continue traveling in the #3 entry to the fourth crosscut. Captain must continue the RR for the curved caved area. Teams will find a room neck and a face to the right, and an explosive/irrespirable atmosphere and a barricade inby. There is no response behind the barricade, and currently no way to ventilate it. Teams must continue exploration. Teams must make RRs, DIs, and GTs as required.

Team Stop #10

Teams will most likely tie across to the #2 entry. Teams will find smoke inby, the backside of the unsafe roof outby, and a Refuge Alternative with no response to the left. Entire team must be on lifeline/linkline when in smoke. Team must enter the RA, but no one will be found. Team must make RRs, DIs, and GTs as required.

Team Stop #11

Teams will most likely tie across to the #1 entry. Teams will find a barricade outby with no irrespirable atmosphere in front of it. There will be a response behind the barricade. Teams must airlock to breach the barricade. Teams will find a body, a caved area, an explosive atmosphere, a conscious live person, and a second barricade. Teams must do an initial assessment on the live person. Teams must put the live person under a breathing device/apparatus before taking him/her through an irrespirable atmosphere. DIs must be placed as required, and RRs and GTs must be made. Teams will retreat back to the surface with the patient.

Team Stop #12

Teams will travel back into the mine in the #1 entry to the third crosscut. Teams will find an irrespirable atmosphere in the intersection and an explosive/irrespirable atmosphere in the entry inby, the backside of the barricade, and the backside of the permanent stopping to the right. Teams must do GTs and place DIs as required. Teams cannot breach barricade with the irrespirable in front of it, so teams must retreat back out of the mine in the #1 entry and back into the mine in the #3 entry.

Team Stop #13

Teams must tie off if on linkline to travel through the smoke to the fifth crosscut in the #2 entry. Teams will find the return side of the split ventilation shaft to the left. Team must make GT and DI.

Team Stop #14

Teams will travel over to the #1 entry up to the fifth crosscut. Teams will find a line curtain to the right and the fan side of the ventilation shaft. Teams can now ventilate the barricade in the #3 entry. Teams must make DI and GT.

See Ventilation #1

See Ventilation #2

At this time, teams will be given the Team Statement related to the areas of Roof Working. Teams do not have to go back to the areas and do not have to map, but teams cannot travel through the areas.

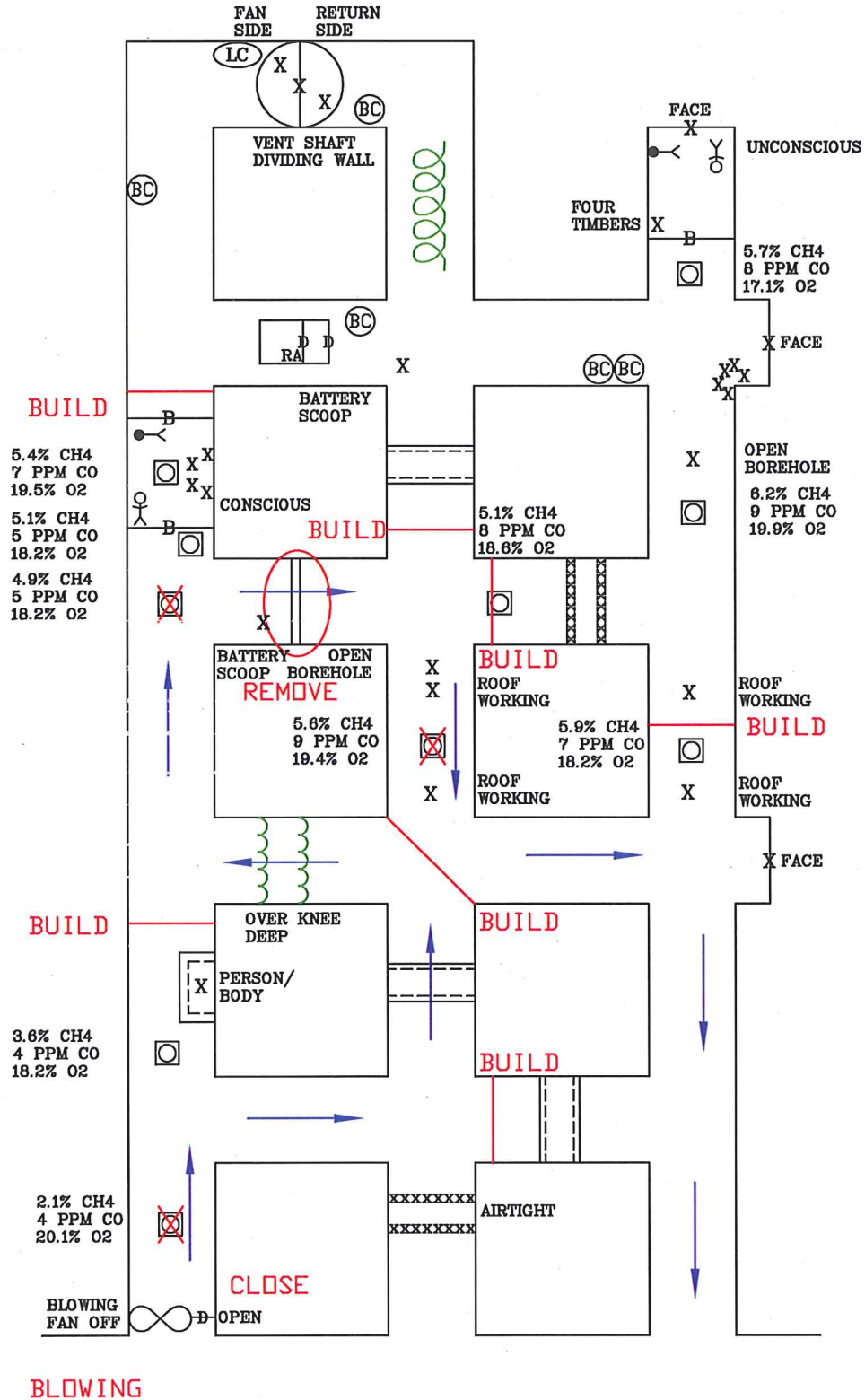
See Ventilation #3

See Ventilation #4

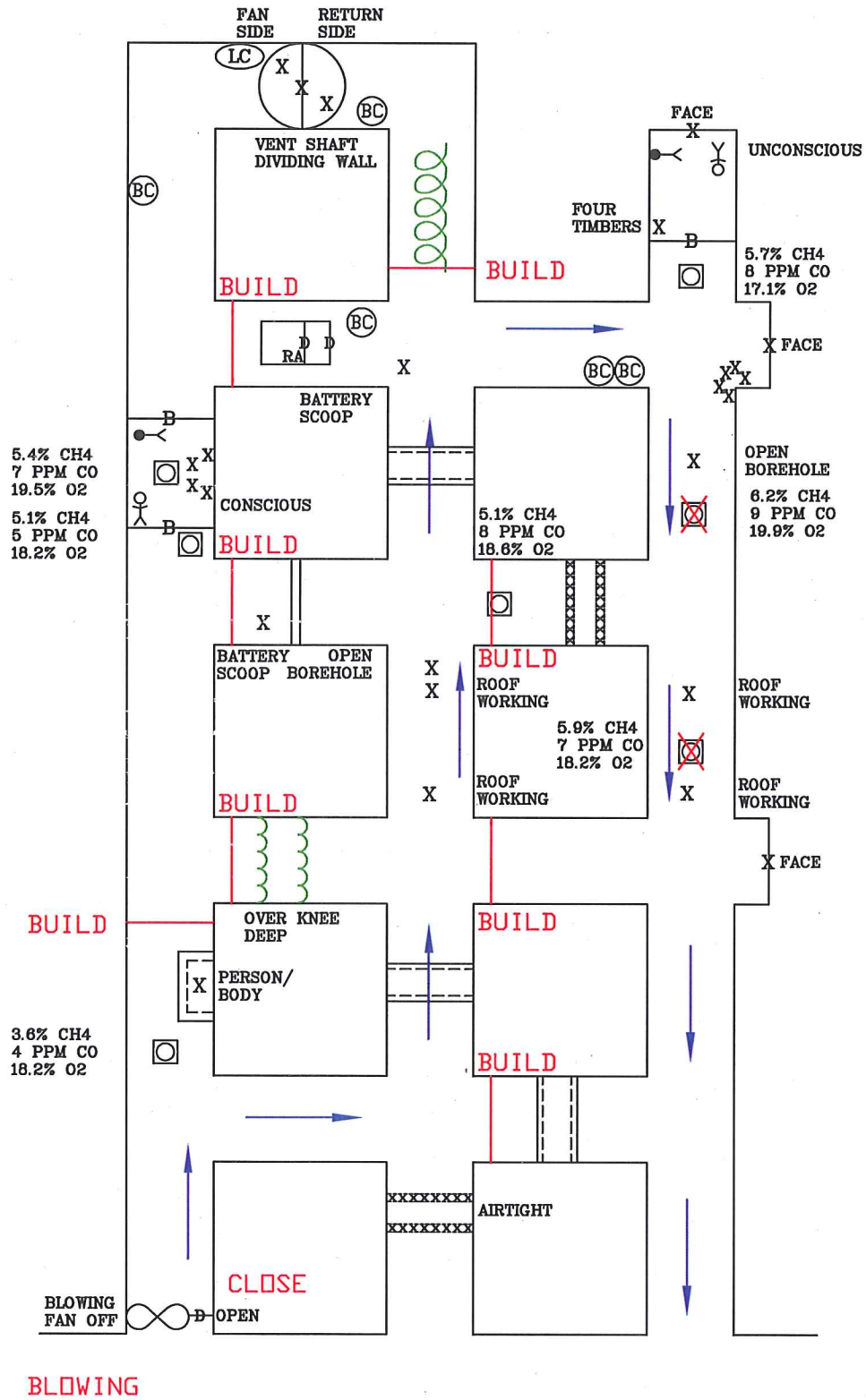
Teams must airlock to enter the barricade. Teams will find four timbers, a body, and an unconscious live person, and a face. Teams must do an initial assessment on the patient and put him/her on a stretcher to bring to the surface. Teams will do GTs, RRs, and DIs as required. Teams will bring patient to the surface. Patient must be under breathing device when going through irrespirable atmospheres.

Teams can then take the four timbers and reach the person under unsafe roof in the #1 entry. When the captain touches the person and turns the placard over, it will be a body. Captain must DI at the body. Teams will return to the surface and stop the clock.

VENT 1



VENT 2



TEAM STATEMENT

**(Give after the two gases in the #3 entry
are ventilated)**

**THE ROOF HAS CAVED IN THE #2 ENTRY WHERE
THE ROOF WAS WORKING**

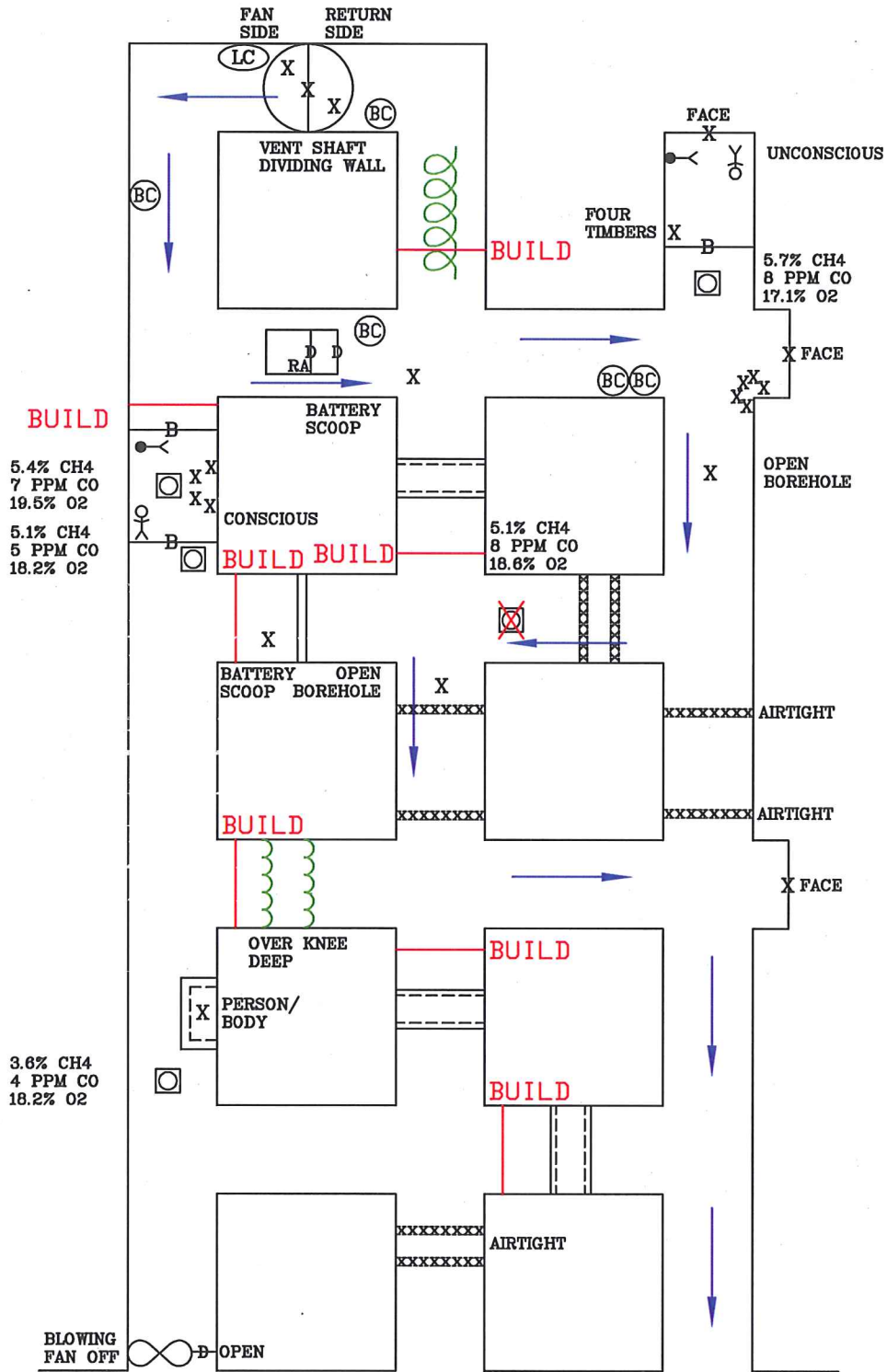
**THE ROOF HAS CAVED AIRTIGHT IN THE #3
ENTRY WHERE THE ROOF WAS WORKING**

**THE INSTALLATION OF THE VENT SHAFT
BLOWING FAN HAS BEEN COMPLETED AND CAN
BE USED**

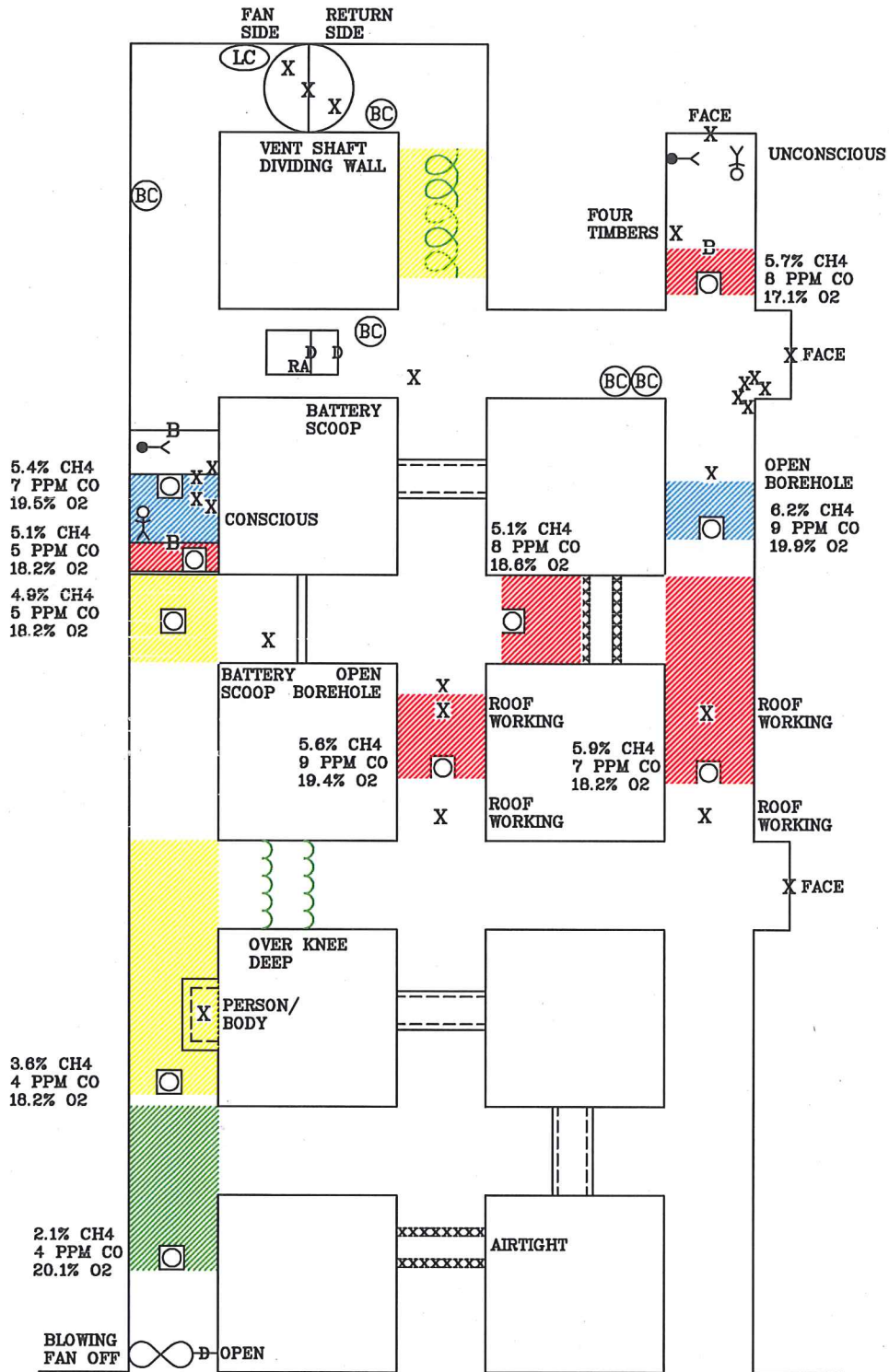
**THE BLOWING FAN AT THE PORTAL HAS
MALFUNCTIONED AND CANNOT BE USED
FURTHER**

VENT 3

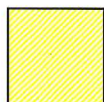
BLOWING



EXTENT OF GASES



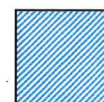
CONTAMINANT



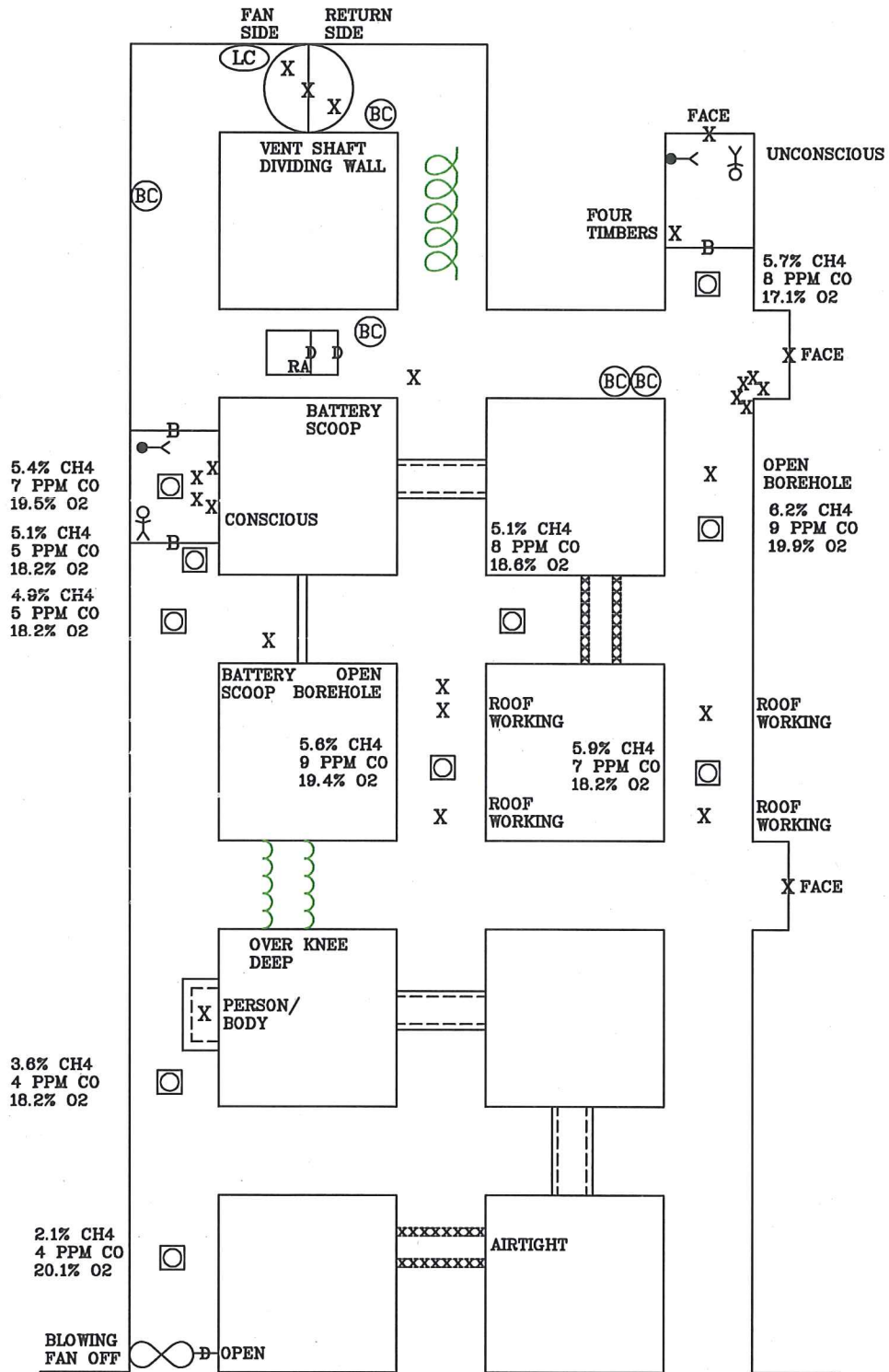
IRRESPIRABLE

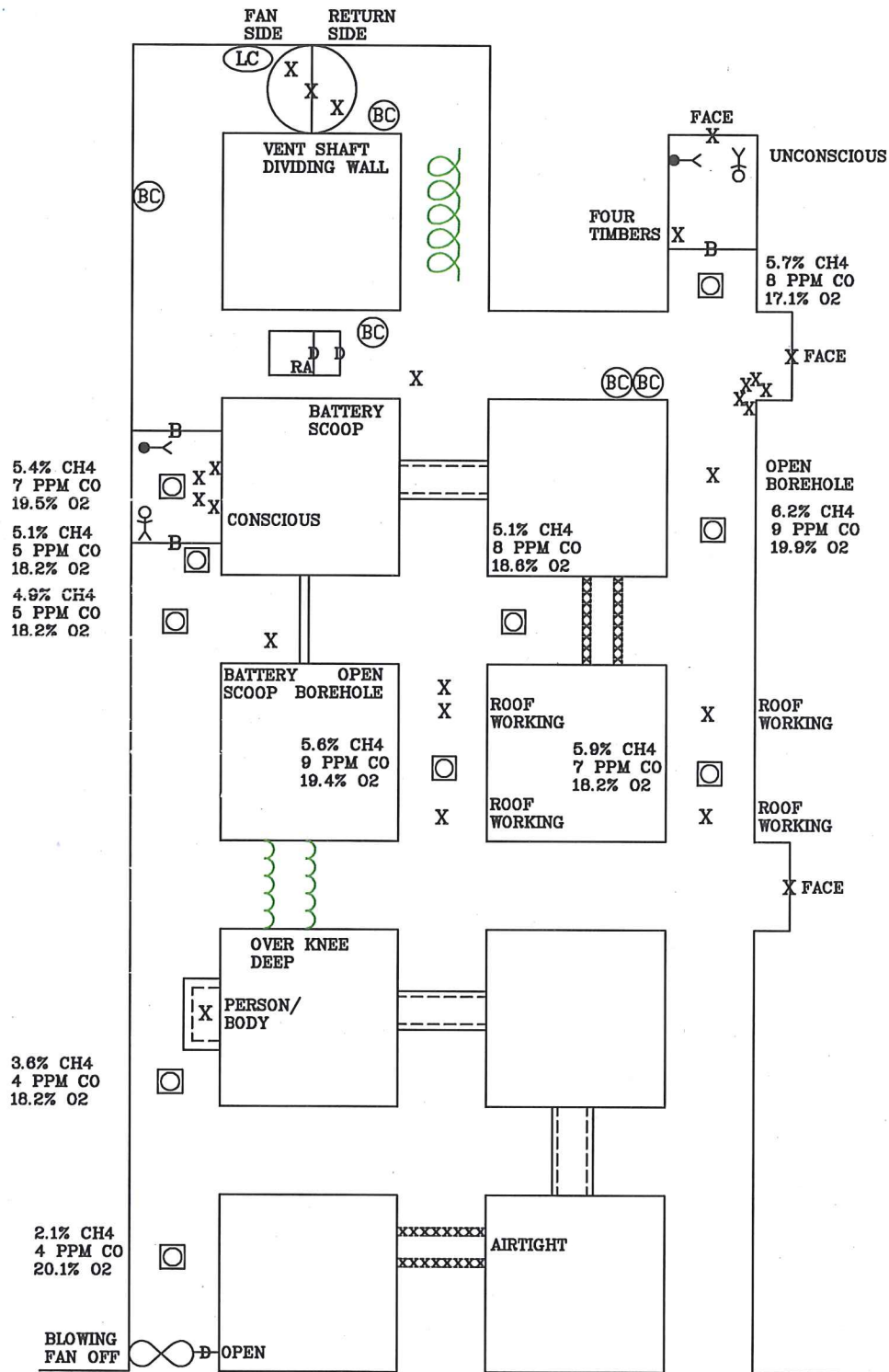


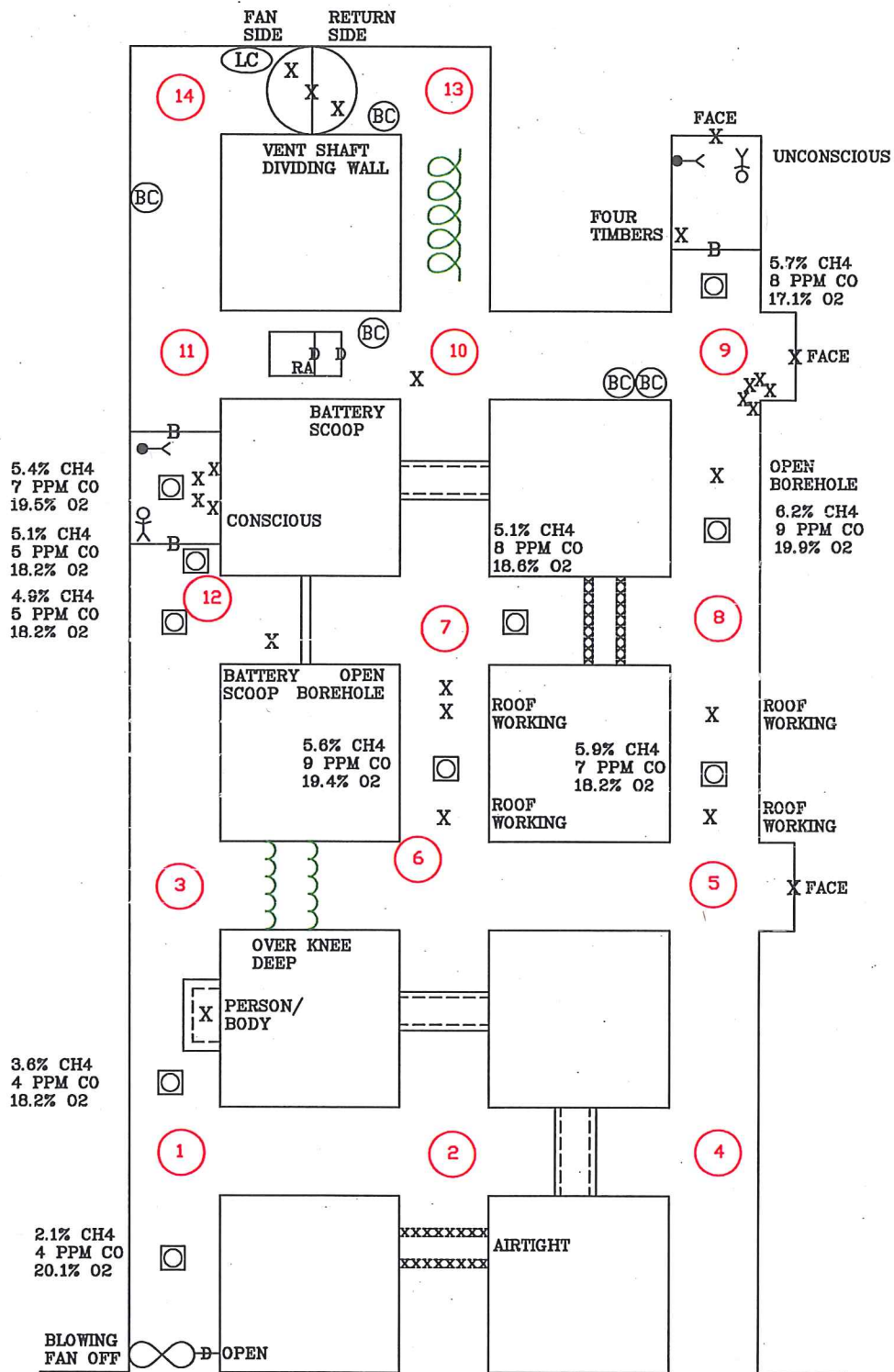
EXPLOSIVE &
IRRESPIRABLE



EXPLOSIVE







FINAL VENTILATION

