



2013
KENTUCKY RIVER MINE RESCUE
CONTEST DAY 2

KENTUCKY RIVER MINE RESCUE CONTEST
SUPERINTENDENT STATEMENT DAY 2
JUNE 20, 2013

Thank you for coming to help us. You are located at the fresh air base of the Hazco #1 mine. This is a very large mine with multiple working section and interconnected fans and air courses.

This is your second day at the same incident. There have been 10 miners located since yesterday bringing the total to 16 still missing.

There are multiple mine rescue teams working different areas of the mine at the same time you will be working. Due to teams working bare face outby, you must inform the Superintendent of any smoke and what gases and their concentrations you will be ventilating down the return before you do so. If you find the miner please inform the Superintendent of their identification. There will be a paper provided for doing both of these tasks. You must write it down and hand to the Superintendent. The area you will be exploring contains a refuge alternative it was be moved by a miner with a scoop when the incident occurred. The area you are exploring is connected to a main return and if the airlocks are not maintained you will ventilate through unexplored areas. You must maintain the airlocks. The fan you are working with is running and cannot be reversed, turned off or stalled because if will adversely affect the ventilation other teams are using while they are exploring. The air is currently going across the fresh air base and the return has been established so you can send smoke, and any gases out and they will not travel over any ignition source or unexplored area.

There is a pump switch located in the fresh air base it is de-energized at this time. We are trying to establish the power back to the switch and we will let you know when this is completed. If you need to pump water you will not be able to until this is completed.

The mine has a history of bad roof, water and methane. The mine maps are up to date but does not have the RA location. We have a competent life line person to give and take life line signals if necessary. There are back up and standby teams ready to assist you.

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

You will be given two maps you are to denote which one is the Team map and which one is the Briefing Officer map.

Please find the missing miner. Thank you and good luck.

PROBLEM

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

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

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

**ADVANCE THE VENTILATION TO THE
LAST OPEN CROSSCUT AND ESTABLISH
THE VENTILATION SO THAT A
CONTAMINANT CAN BE VENTILATED
AND IT WILL NOT GO OVER
UNEXPLORED AREAS OR IGNITION
SOURCES.**

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

PATIENT STATEMENT RA

HELP!! GET ME OUT

**STATEMENT TO BRIEFING
OFFICER DAY 2**

**THE POWER HAS BEEN RESTORED
TO THE PUMP SWITCH IN THE
FRESH AIR BASE. YOU CAN NOW
ENERGIZE PUMPS AND PUMP
WATER IF YOU NEED TO.**

**THERE CURRENTLY IS NO POWER
INBY THE FRESH AIR BASE.**

KENTUCKY RIVER MINE RESCUE CONTEST DAY 2

JUDGES BRIEFING

IF ASTERIK BESIDE ANSWER DENOTES DISCOUNT
FRESH AIR BASE

	YES	NO	RULE
1. Did captain start the clock within 4 minutes	_____	_____*	<u>50</u>
2. Did captain DI check board	_____	_____*	<u>26</u>
3. Were apparatus ready when arrive FAB	_____	_____*	<u>50</u>
4. Did each member have proper boots, hat, etc	_____	_____*	<u>50</u>
5. Did each member have name tag on belt	_____	_____*	<u>50</u>
6. Did team have fire extinguisher and stretcher	_____	_____*	<u>50</u>
7. Did team check communications	_____	_____*	<u>14</u>
8. Did team check gas detecting instruments	_____	_____*	<u>14</u>
9. Did anything fail and not corrected before inby FAB	_____	_____*	<u>15</u>
10. Did team take necessary equipment inby FAB	_____	_____*	<u>13</u>
11. Did team secure extra apparatus to stretcher	_____	_____*	<u>16</u>
12. Did team arrange lifeline signals (N/ A for radio)	_____	_____*	<u>17</u>
13. Did team don apparatus properly	_____	_____*	<u>3</u>
14. Was each apparatus properly assembled inby FAB	_____	_____*	<u>1</u>
15. Was each apparatus properly adjusted inby FAB	_____	_____*	<u>2</u>
16. Was any apparatus dangerously deteriorated	_____	_____*	<u>4</u>
17. Was oxygen bottle over specified limits	_____	_____*	<u>5</u>
18. Did captain properly check each apparatus and their's	_____	_____*	<u>6</u>
19. Team members have numbers on arm #1 for captain	_____	_____*	<u>50</u>

#1 ENTRY

1. Captain DI stopping	_____	_____*	<u>27</u>
2. Team conduct gas test at stopping	_____	_____*	<u>24</u>
3. Proper gas test	_____	_____*	<u>25</u>
4. Captain roof and rib for air lock	_____	_____*	<u>23</u>
5. Air lock before entering	_____	_____*	<u>43&51</u>
6. Air lock air tight	_____	_____*	<u>44&51</u>
7. Captain DI team built air lock	_____	_____*	<u>27</u>
8. Captain gas test after breaching stopping	_____	_____*	<u>24D</u>
9. Proper gas test	_____	_____*	<u>25</u>
10. Captain roof and rib at unsafe roof	_____	_____*	<u>23</u>
11. Captain DI at unsafe roof	_____	_____*	<u>27</u>
12. Team conduct gas test at unsafe roof	_____	_____*	<u>24</u>
13. Proper gas test	_____	_____*	<u>25</u>
14. Air lock before exiting	_____	_____*	<u>51</u>
15. Endangered themselves in unsafe roof	_____*	_____	<u>30</u>

#2 ENTRY

16. Captain DI stopping	_____	_____*	<u>27</u>
17. Team conduct gas test at stopping	_____	_____*	<u>24</u>
18. Proper gas test	_____	_____*	<u>25</u>
19. Captain roof and rib for air lock	_____	_____*	<u>23</u>
20. Air lock before entering	_____	_____*	<u>43&51</u>
21. Air lock air tight	_____	_____*	<u>44&51</u>
22. Captain DI team built air lock	_____	_____*	<u>27</u>
23. Captain gas test after breaching stopping	_____	_____*	<u>24D</u>
24. Proper gas test	_____	_____*	<u>25</u>
25. Captain roof and rib at unsafe roof	_____	_____*	<u>23</u>
26. Captain DI at unsafe roof	_____	_____*	<u>27</u>
27. Team conduct gas test at unsafe roof	_____	_____*	<u>24</u>
28. Proper gas test	_____	_____*	<u>25</u>
29. Air lock before exiting	_____	_____*	<u>51</u>
30. Endangered themselves in unsafe roof	_____	_____*	<u>30</u>

#3 ENTRY

31. Captain DI stopping	_____	_____*	<u>27</u>
32. Team conduct gas test at stopping	_____	_____*	<u>24</u>
33. Proper gas test	_____	_____*	<u>25</u>
34. Captain roof and rib for air lock	_____	_____*	<u>23</u>
35. Air lock before entering	_____	_____*	<u>43&51</u>
36. Air lock air tight	_____	_____*	<u>44&51</u>
37. Captain DI team built air lock	_____	_____*	<u>27</u>
38. Captain gas test after breaching stopping	_____	_____*	<u>24D</u>
39. Proper gas test	_____	_____*	<u>25</u>
40. Air lock before exiting	_____	_____*	<u>51</u>

The team will have to perform the 50-foot apparatus check whenever the entire team is in by the FAB in any entry the first time. Also the briefing officer must enter the designated area when team conducts apparatus check.

41. Briefing officer not in designated area after team check	_____	_____*	<u>50</u>
42. Team conducted 50-foot apparatus check	_____	_____*	<u>28</u>

The team will now enter the number 3 entry and travel to team stop #1 in the 1st intersection.

TEAM STOP #1

43. Captain roof and rib at unsafe roof	_____	_____*	<u>23</u>
44. Captain DI at unsafe roof	_____	_____*	<u>27</u>
45. Team conduct gas test at unsafe roof	_____	_____*	<u>24</u>
46. Proper gas test	_____	_____*	<u>25</u>
47. Endangered themselves in unsafe roof	_____*	_____	<u>30</u>
48. Team conduct gas test inby intersection	_____	_____*	<u>24</u>
49. Proper gas test	_____	_____*	<u>25</u>

The team will travel up the number 3 entry in the 2nd intersection to team stop #2.

TEAM STOP #2

50. Captain roof and rib at caved	_____	_____*	<u>23</u>
51. Captain DI caved	_____	_____*	<u>27</u>
52. Team conduct gas test at caved	_____	_____*	<u>24</u>
53. Proper gas test	_____	_____*	<u>25</u>
54. Endangered themselves in caved	_____*	_____	<u>30</u>
55. Team conduct gas test inby intersection	_____	_____*	<u>24</u>
56. Proper gas test	_____	_____*	<u>25</u>

The team will travel up the number 3 entry in the 3rd intersection to team stop #3.

TEAM STOP #3

57. Captain roof and rib at unsafe roof	_____	_____*	<u>23</u>
58. Captain DI unsafe roof	_____	_____*	<u>27</u>
59. Team conduct gas test unsafe roof	_____	_____*	<u>24</u>
60. Proper gas test	_____	_____*	<u>25</u>
61. Endangered themselves in unsafe roof	_____*	_____	<u>30</u>
62. Team conduct gas test inby intersection	_____	_____*	<u>24</u>
63. Proper gas test	_____	_____*	<u>25</u>

The team will travel up the number 3 entry in the 4th intersection to team stop #4

TEAM STOP #4

64. Captain roof and rib at caved	_____	_____*	<u>23</u>
65. Captain DI caved	_____	_____*	<u>27</u>
66. Team conduct gas test caved	_____	_____*	<u>24</u>
67. Proper gas test	_____	_____*	<u>25</u>
68. Endangered themselves in caved	_____*	_____	<u>30</u>
69. All teams members on line in smoke	_____	_____*	<u>22</u>
70. Captain DI partially destroyed stopping	_____	_____*	<u>27</u>
71. Team conduct gas test to left	_____	_____*	<u>24</u>
72. Proper gas test	_____	_____*	<u>25</u>

The team will travel across to the number 2 entry in the 4th intersection to team stop #5

TEAM STOP #5

73. Captain DI water roofed inby	_____	_____*	<u>27</u>
74. Team conduct gas test water roofed inby	_____	_____*	<u>24</u>
75. Proper gas test	_____	_____*	<u>25</u>
76. Endangered themselves in water roofed inby	_____*	_____	<u>30</u>
77. Captain DI water roofed left	_____	_____*	<u>27</u>
78. Team conduct gas test water roofed left	_____	_____*	<u>24</u>
79. Proper gas test	_____	_____*	<u>25</u>
80. Endangered themselves in water roofed left	_____*	_____	<u>30</u>
81. Team conduct gas test outby intersection	_____	_____*	<u>24</u>
82. Proper gas test	_____	_____*	<u>25</u>

The team will travel down the number 2 entry in the 3rd intersection to team stop #6 (Patient makes statement as team enter intersection)

TEAM STOP #6

83. Captain roof and rib at caved	_____	_____*	<u>23</u>
84. Captain DI caved	_____	_____*	<u>27</u>
85. Team conduct gas test at caved	_____	_____*	<u>24</u>
86. Proper gas test	_____	_____*	<u>25</u>
87. Endangered themselves in caved	_____*	_____	<u>30</u>
88. Captain roof and rib at unsafe roof	_____	_____*	<u>23</u>
89. Captain DI unsafe roof	_____	_____*	<u>27</u>
90. Team conduct gas test at unsafe roof	_____	_____*	<u>24</u>
91. Proper gas test	_____	_____*	<u>25</u>
92. Endangered themselves in unsafe roof	_____*	_____	<u>30</u>
93. Captain DI door at RA	_____	_____*	<u>27</u>
94. Team conduct gas test outby intersection	_____	_____*	<u>24</u>
95. Proper gas test	_____	_____*	<u>25</u>

The team will travel down the number 2 entry in the 2nd intersection to team stop #7

TEAM STOP #7

96. Captain DI partially destroyed stopping	_____	_____*	<u>27</u>
97. Captain roof and rib at caved	_____	_____*	<u>23</u>
98. Captain DI caved	_____	_____*	<u>27</u>
99. Team conduct gas test at caved	_____	_____*	<u>24</u>
100. Proper gas test	_____	_____*	<u>25</u>
101. Endangered themselves in caved	_____*	_____	<u>30</u>
102. Captain roof and rib at caved	_____	_____*	<u>23</u>
103. Captain DI caved	_____	_____*	<u>27</u>
104. Team conduct gas test at caved	_____	_____*	<u>24</u>
105. Proper gas test	_____	_____*	<u>25</u>
106. Endangered themselves in caved	_____*	_____	<u>30</u>

107. Team conduct gas test outby intersection	___	___	*	<u>24</u>
108. Proper gas test	___	___	*	<u>25</u>

The team will travel down the number 2 entry in the 1st intersection to team stop #8.

TEAM STOP #8

109. Captain DI partially destroyed stopping	___	___	*	<u>27</u>
110. Team conduct gas test at partially destroyed stopping	___	___	*	<u>24</u>
111. Proper gas test	___	___	*	<u>25</u>
112. Captain roof and rib at unsafe roof	___	___	*	<u>23</u>
113. Captain DI at unsafe roof	___	___	*	<u>27</u>
114. Team conduct gas test at unsafe roof	___	___	*	<u>24</u>
115. Proper gas test	___	___	*	<u>25</u>
116. Endangered themselves in caved	___	*	___	<u>30</u>
117. Captain roof and rib at unsafe roof	___	___	*	<u>23</u>
118. Captain DI at unsafe roof	___	___	*	<u>27</u>
119. Team conduct gas test at unsafe roof	___	___	*	<u>24</u>
120. Proper gas test	___	___	*	<u>25</u>
121. Endangered themselves in caved	___	*	___	<u>30</u>

The team is now ready to ventilate. They must maintain the airlock

122. Team maintained air lock	___	*	___	<u>51</u>
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They must build across the number 3 entry inby the 4th crosscut.

123. Captain roof and rib number 3 entry	___	___	*	<u>23</u>
124. Captain DI stopping number 3 entry	___	___	*	<u>27</u>

They must build across the number 3 entry inby the 1st crosscut.

125. Captain roof and rib number 3 entry	___	___	*	<u>23</u>
126. Captain DI stopping number 3 entry	___	___	*	<u>27</u>

They must build across the 1st crosscut between number 1 and 2 entries.

127. Captain roof and rib number 1 st crosscut	___	___	*	<u>23</u>
128. Captain DI stopping number 1 st crosscut	___	___	*	<u>27</u>

The team must set timbers in the unsafe roof just inby FAB in number 2 entry and 1st crosscut between number 2 and 3 entries.

129. Captain properly set timbers	___	___	*	<u>30</u>
130. Captain DI partially destroyed stopping in unsafe	___	___	*	<u>27</u>

They must remove stoppings in the number 2 and 3 entries inby the FAB.

They must build across the FAB between number 2 and 3 entries.

131. Captain roof and rib FAB	___	___	*	<u>23</u>
132. Captain DI stopping FAB	___	___	*	<u>27</u>

133. The team informed Superintendent that they were sending 6.5% CH ₄ , 3 PPM CO and 19.7% O ₂ CH ₄ down the return	___	___	*	<u>51</u>
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The team will properly remove stopping in FAB to short circuit the air.

They have to remove stopping across number 3 entry inby 1st crosscut.

They have to build across the 1st crosscut between number 2 and 3 entries on either side of the unsafe roof.

134. Captain roof and rib for stopping _____ * 23

135. Captain DI stopping _____ * 27

They have to build across the 2nd crosscut between number 2 and 3 entries on either side of the caved.

136. Captain roof and rib for stopping _____ * 23

137. Captain DI stopping _____ * 27

They have to build across the either the number 2 or number 3 entry inby the 3rd crosscut.

138. Captain roof and rib for stopping _____ * 23

139. Captain DI stopping _____ * 27

The team must set timbers in the unsafe roof in 3rd crosscut between number 2 and 3 entries.

140. Captain properly set timbers _____ * 30

141. Captain DI partially destroyed stopping in unsafe _____ * 27

The must move battery telephone to an area where it will not be ventilated over with explosive mixture.

The team reinstalls stopping in FAB.

142. The team informed Superintendent that they were sending 5.4% CH₄, 1 PPM CO and 19.1% O₂ and 2.1% CH₄, 3 PPM CO and 19.1% CH₄ down the return _____ * 51

Now the team is ready to get the patient out of the RA.

143. Team conduct gas test upon reentering area at RA _____ * 24F

144. Captain DI for Patient in RA _____ * 35

145. Team assess if patient is OK _____ * 12

146. Immediately removed patient to FAB _____ * 42

147. Team left patient unattended _____ * 41

148. Team informed Superintendent of finding patient (by name) _____ * 51

Superintendent hands the Briefing Officer statement stating power has been established at the pump switch and they can now pump water if they need to. There is still no power inby FAB.

The team will travel to the number 1 entry in the 1st intersection to team stop #9.

TEAM STOP #9

149. Captain roof and rib at unsafe roof _____ * 23

150. Captain DI at unsafe roof _____ * 27

151. Team conduct gas test at unsafe roof _____ * 24

152. Endangered themselves in unsafe roofed _____ * 30

153. Proper gas test _____ * 25

154. Team conduct gas test inby _____ * 24

155. Proper gas test	—	—*	<u>25</u>
156. Team travels in explosive mixture	—*	—	<u>31</u>

The team must retreat to the fresh air base and stop the clock.

157. Team failed to complete the problem in time A card rule number 3 (15 or 5 points).

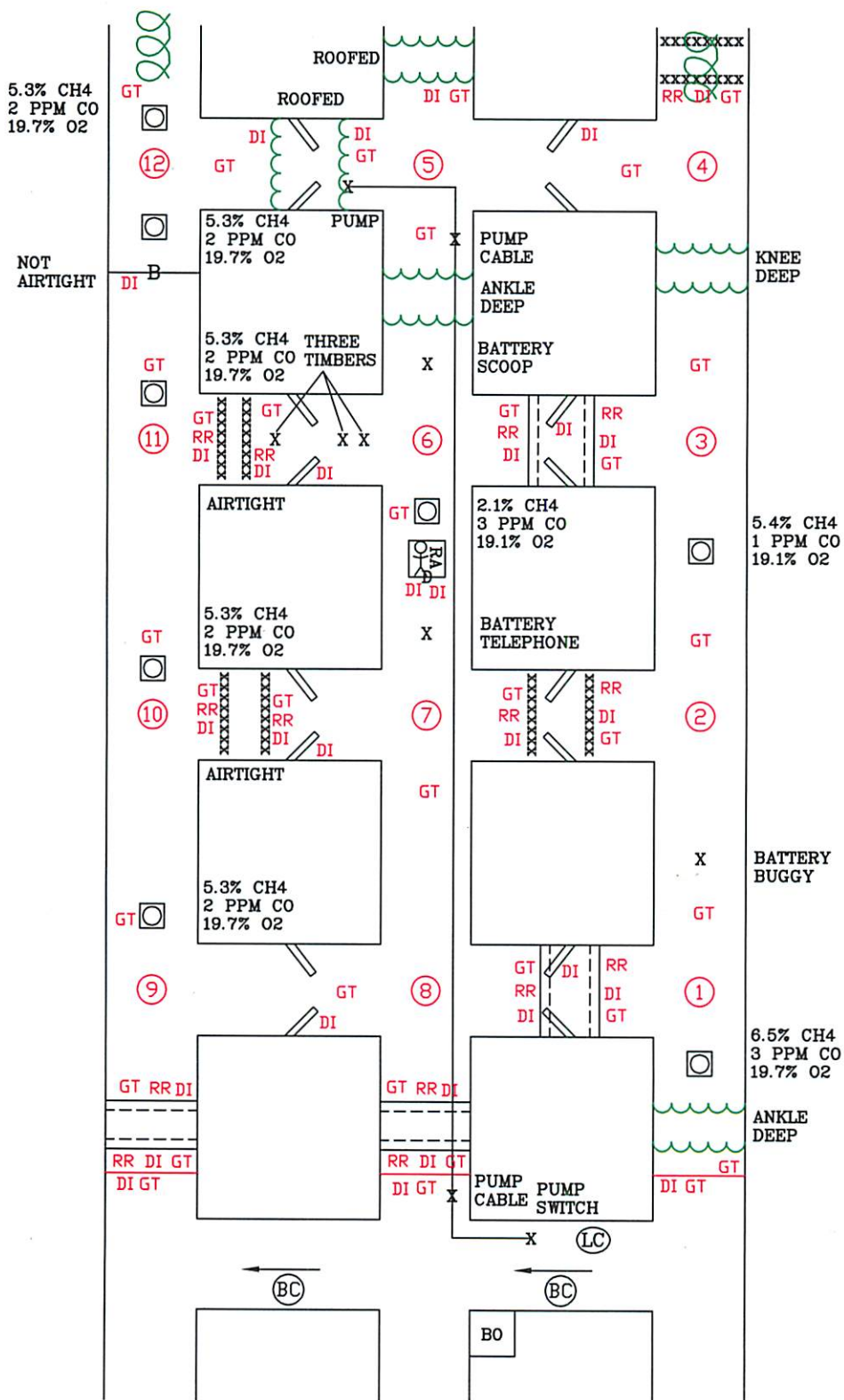
158. Working on map after clock stops A card rule 4.

OTHER RULES THE TEAM MAY NEED DISCOUNTED FOR

159. Captain and other team member properly examining each apparatus during team checks	—	—*	<u>7</u>
160. Team traveling with more than 2 brattice cloths	—*	—	<u>51</u>
161. Team explored systematically	—	—*	<u>45</u>
162. Team member inby captain	—*	—	<u>23</u>
163. Team member breathing external air inby FAB	—*	—	<u>9</u>
164. Followed proper procedure during apparatus failure	—	—*	<u>10</u>
165. Gave proper notification to briefing officer of intent	—	—*	<u>18</u>
166. Notified briefing officer of ventilation change	—	—*	<u>19</u>
167. Took communication inby FAB	—	—*	<u>20</u>
168. All team members on line when traveling	—	—*	<u>21</u>
169. Any member over 25-foot from either stopping point	—	—*	<u>29</u>
170. Team caused explosion 30XmixtureX locations	—*	—	<u>31</u>
171. Team failed to moved irrespirable mixture	—*	—	<u>35</u>
172. Atmosphere of Briefing Officer irrespirable	—*	—	<u>36</u>
173. All 5 team members running	—*	—	<u>37</u>
174. Team receiving unauthorized information	—*	—	<u>38</u>
175. Team violates intent of the problem	—*	—	<u>49</u>

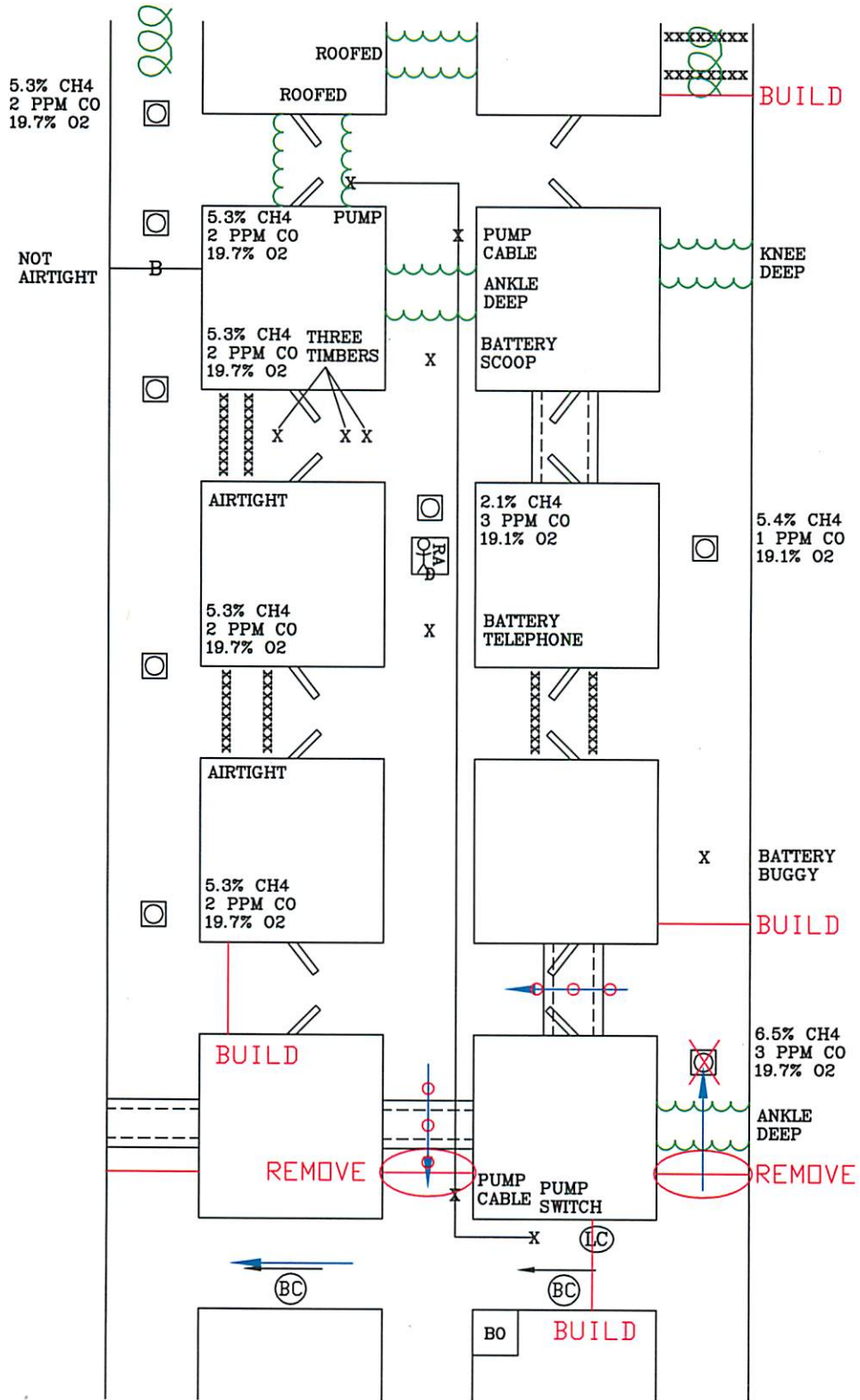
Team Stop

Scale: 1 inch = 20 feet



Ventilation #1

Scale: 1 inch = 20 feet



Ventilation #2

Scale: 1 inch = 20 feet

