



2013
KENTUCKY RIVER MINE RESCUE
CONTEST DAY 1

**KENTUCKY RIVER MINE RESCUE CONTEST
SUPERINTENDENT STATEMENT DAY 1
JUNE 19, 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 morning 75 miners entered the mine. Around 9:00 am this morning the incident occurred. There was a loud rush of air out the portals and the CO system alarmed. The Responsible Person tried to contact the miners underground but was not able to contact anyone. We reported this to MSHA and contacted mine rescue teams. At 10:30 am forty nine miners were able to escape. The other 26 miners are unaccounted for. 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 and at the time of the incident a miner was shown on the tracking system to be in the area also. 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.**

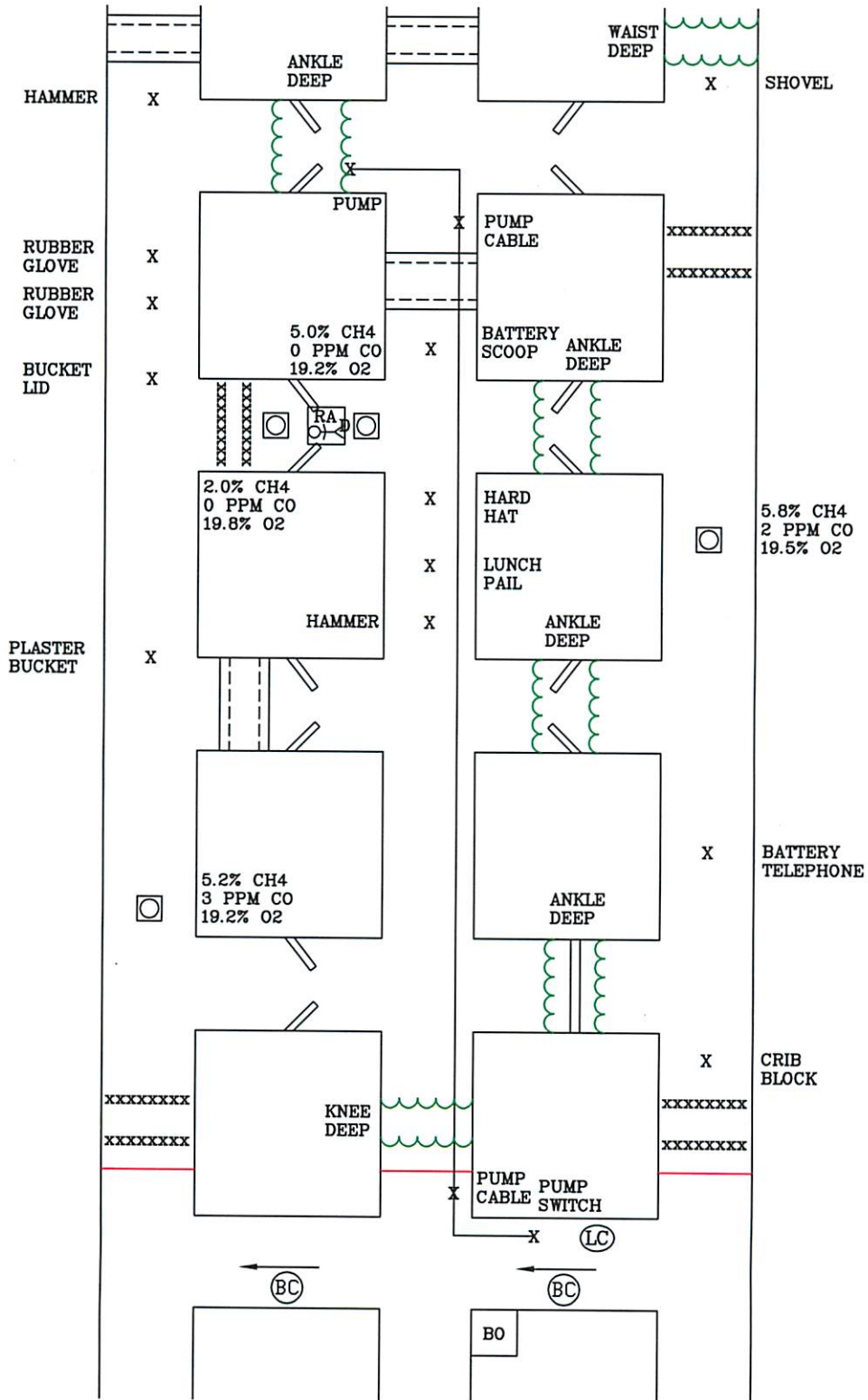
**YOU HAVE 80 MINUTES TO WORK BEFORE
BEING REPLACED BY ANOTHER TEAM**

PATIENT STATEMENT RA

HELP!! GET ME OUT

Hazard Day #1

Scale: 1 inch = 20 feet



KENTUCKY RIVER MINE RESCUE CONTEST DAY 1 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 caved	___	___*	<u>23</u>
11. Captain DI at caved	___	___*	<u>27</u>
12. Team conduct gas test at caved	___	___*	<u>24</u>
13. Proper gas test	___	___*	<u>25</u>
14. Air lock before exiting	___	___*	<u>51</u>
15. Endangered themselves in caved	___	___*	<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. Air lock before exiting	_____	_____*	<u>51</u>

#3 ENTRY

26. Captain DI stopping	_____	_____*	<u>27</u>
27. Team conduct gas test at stopping	_____	_____*	<u>24</u>
28. Proper gas test	_____	_____*	<u>25</u>
29. Captain roof and rib for air lock	_____	_____*	<u>23</u>
30. Air lock before entering	_____	_____*	<u>43&51</u>
31. Air lock air tight	_____	_____*	<u>44&51</u>
32. Captain DI team built air lock	_____	_____*	<u>27</u>
33. Captain gas test after breaching stopping	_____	_____*	<u>24D</u>
34. Proper gas test	_____	_____*	<u>25</u>
35. Captain roof and rib at caved	_____	_____*	<u>23</u>
36. Captain DI at caved	_____	_____*	<u>27</u>
37. Team conduct gas test at caved	_____	_____*	<u>24</u>
38. Proper gas test	_____	_____*	<u>25</u>
39. Air lock before exiting	_____	_____*	<u>51</u>
40. Endangered themselves in caved	_____*	_____	<u>30</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 2 entry and travel to team stop #1 in the 1st intersection.

TEAM STOP #1

43. Captain DI partially destroyed stopping to left	___	___*	<u>27</u>
44. Team conduct gas test to left	___	___*	<u>24</u>
45. Proper gas test	___	___*	<u>25</u>
46. Team conduct gas test inby intersection	___	___*	<u>24</u>
47. Proper gas test	___	___*	<u>25</u>
48. Captain DI stopping to right	___	___*	<u>27</u>
49. Team conduct gas test to right	___	___*	<u>24</u>
50. Proper gas test	___	___*	<u>25</u>

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

TEAM STOP #2

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

The team will travel up the number 1 entry in the 2nd intersection to team stop #3

TEAM STOP #3

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

The team will travel up the number 2 entry in the 2nd intersection to team stop #4

TEAM STOP #4

65. Captain roof and rib at unsafe roof	___	___*	<u>23</u>
66. Captain DI unsafe roof	___	___*	<u>27</u>
67. Team conduct gas test unsafe roof	___	___*	<u>24</u>
68. Proper gas test	___	___*	<u>25</u>
69. Endangered themselves in unsafe roof	___*	___	<u>30</u>
70. Team conduct gas test inby intersection	___	___*	<u>24</u>
71. Proper gas test	___	___*	<u>25</u>
72. Team checked lunch pail	___	___*	<u>48</u>
73. Captain DI partially destroyed stopping	___	___*	<u>27</u>
74. Team conduct gas test to right	___	___*	<u>24</u>
75. Proper gas test	___	___*	<u>25</u>

The team will travel across to the number 3 entry in the 2nd intersection to team stop #5

TEAM STOP #5

76. Team conduct gas test inby intersection	_____	_____*	<u>24</u>
77. Proper gas test	_____	_____*	<u>25</u>
78. Team conduct gas test outby intersection	_____	_____*	<u>24</u>
79. Proper gas test	_____	_____*	<u>25</u>

The team will travel down the number 3 entry in the 1st intersection to team stop #6

TEAM STOP #6

80. Captain roof and rib at caved	_____	_____*	<u>23</u>
81. Captain DI caved	_____	_____*	<u>27</u>
82. Team conduct gas test at caved	_____	_____*	<u>24</u>
83. Proper gas test	_____	_____*	<u>25</u>
84. Endangered themselves in caved	_____*	_____	<u>30</u>
85. Captain DI stopping	_____	_____*	<u>27</u>
86. Team conduct gas test at stopping	_____	_____*	<u>24</u>
87. Proper gas test	_____	_____*	<u>25</u>

The team will travel up the number 3 entry in the 3rd intersection to team stop #7

TEAM STOP #7

88. Captain roof and rib at caved	_____	_____*	<u>23</u>
89. Captain DI caved	_____	_____*	<u>27</u>
90. Team conduct gas test at caved	_____	_____*	<u>24</u>
91. Proper gas test	_____	_____*	<u>25</u>
92. Endangered themselves in caved	_____*	_____	<u>30</u>
93. Captain DI partially destroyed stopping	_____	_____*	<u>27</u>
94. Team conduct gas test at partially destroyed stopping	_____	_____*	<u>24</u>
95. Proper gas test	_____	_____*	<u>25</u>

The team will travel across to the number 2 entry in the 3rd intersection to team stop #8. (Patient makes statement as team enter intersection)

TEAM STOP #8

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

The team will travel up the number 1 entry in the 3rd intersection to team stop #9.

TEAM STOP #9

108. Captain roof and rib at caved	_____	_____*	<u>23</u>
109. Captain DI at caved	_____	_____*	<u>27</u>
110. Team conduct gas test at caved	_____	_____*	<u>24</u>
111. Endangered themselves in caved	_____*	_____	<u>30</u>
112. Proper gas test	_____	_____*	<u>25</u>
113. Team conduct gas test inby	_____	_____*	<u>24</u>
114. Proper gas test	_____	_____*	<u>25</u>

The team will travel up the number 1 entry in the 4th intersection to team stop #10.

TEAM STOP #10

115. Captain roof and rib at unsafe roof	_____	_____*	<u>23</u>
116. Captain DI at unsafe roof	_____	_____*	<u>27</u>
117. Team conduct gas test at unsafe roof	_____	_____*	<u>24</u>
118. Proper gas test	_____	_____*	<u>25</u>
119. Endangered themselves in unsafe roof	_____*	_____	<u>30</u>
120. Captain DI partially destroyed stopping	_____	_____*	<u>27</u>
121. Team conduct gas test to right	_____	_____*	<u>24</u>
122. Proper gas test	_____	_____*	<u>25</u>

The team will travel across to the number 2 entry in the 4th intersection to team stop #11.

TEAM STOP #11

123. Captain roof and rib at unsafe roof inby	_____	_____*	<u>23</u>
124. Captain DI at unsafe roof inby	_____	_____*	<u>27</u>
125. Team conduct gas test at unsafe roof inby	_____	_____*	<u>24</u>
126. Proper gas test	_____	_____*	<u>25</u>
127. Endangered themselves in unsafe roof	_____*	_____	<u>30</u>
128. Captain roof and rib at unsafe roof outby	_____	_____*	<u>23</u>
129. Captain DI at unsafe roof outby	_____	_____*	<u>27</u>
130. Team conduct gas test at unsafe roof outby	_____	_____*	<u>24</u>
131. Proper gas test	_____	_____*	<u>25</u>
132. Endangered themselves in unsafe roof	_____*	_____	<u>30</u>
133. Captain DI partially destroyed stopping	_____	_____*	<u>27</u>
134. Team conduct gas test to right	_____	_____*	<u>24</u>
135. Proper gas test	_____	_____*	<u>25</u>

The team will travel across to the number 3 entry in the 4th intersection to team stop #12.

TEAM STOP #12

136. Captain DI at water waist deep	___	___*	<u>27</u>
137. Team conduct gas test at water waist deep	___	___*	<u>24</u>
138. Proper gas test	___	___*	<u>25</u>
139. Endangered themselves in water waist deep	___*	___	<u>30</u>
140. Captain roof and rib at caved	___	___*	<u>23</u>
141. Captain DI at caved	___	___*	<u>27</u>
142. Team conduct gas test at caved	___	___*	<u>24</u>
143. Proper gas test	___	___*	<u>25</u>
144. Endangered themselves in caved	___*	___	<u>30</u>

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

They must first remove the 5.8% CH₄, 2 PPM CO and 19.5% O₂ in the number 3 entry.

They must build across the number 1, 2 and 3 entries in by the 4th crosscut.

145. Captain roof and rib number 1 entry	___	___*	<u>23</u>
146. Captain DI stopping number 1 entry	___	___*	<u>27</u>
147. Captain roof and rib number 2 entry	___	___*	<u>23</u>
148. Captain DI stopping number 2 entry	___	___*	<u>27</u>
149. Captain roof and rib number 3 entry	___	___*	<u>23</u>
150. Captain DI stopping number 3 entry	___	___*	<u>27</u>

They have to build across the number 3 entry either in by or out by the 2nd caved area.

151. Captain roof and rib number 3 entry caved area	___	___*	<u>23</u>
152. Captain DI stopping number 3 entry caved area	___	___*	<u>27</u>

They have to build across the number 2 entry either in by or out by the unsafe roof.

153. Captain roof and rib number 2 entry unsafe roof	___	___*	<u>23</u>
154. Captain DI stopping number 2 entry unsafe roof	___	___*	<u>27</u>

They must build across the crosscut on either side of the caved at the RA between 1 and 2 entries.

155. Captain roof and rib crosscut caved	___	___*	<u>23</u>
156. Captain DI stopping crosscut caved	___	___*	<u>27</u>

They must build across the crosscut on either side of the unsafe roof between number 1 and 2 entries.

157. Captain roof and rib crosscut unsafe roof	___	___*	<u>23</u>
158. Captain DI stopping crosscut unsafe roof	___	___*	<u>27</u>

They must build across the crosscut between number 2 and 3 entries at the ankle deep water in 2nd crosscut.

159. Captain roof and rib crosscut ankle deep water	___	___*	<u>23</u>
160. Captain DI stopping crosscut ankle deep water	___	___*	<u>27</u>

They must remove the stoppings in the number 2 and 3 entries in by the FAB.
They must build across the FAB between number 2 and 3 entries.

- 161. Captain roof and rib FAB _____ * 23
- 162. Captain DI stopping FAB _____ * 27
- 163. The team informed Superintendent that they were sending 5.8% CH₄,
2 PPM CO and 19.5% O₂ down the return _____ * 51

They must now remove the 2.0% CH₄, 0 PPM CO and 19.2% O₂ at the RA.
First they must remove stopping in FAB.

Next they remove stopping at caved in number 3 entry.

- 164. If team reenters the area of the gas placard they must retest at the placard
5.8% CH₄, 2 PPM CO and 19.5% O₂ _____ * 24F

They must build across the crosscut between number 2 and 3 entries at the ankle
deep water in 3rd crosscut.

- 165. Captain roof and rib 3rd crosscut ankle deep water _____ * 23
- 166. Captain DI stopping 3rd crosscut ankle deep water _____ * 27

Next they remove stopping at caved in crosscut at RA.

They must build across the number 1 entry out by the 3rd crosscut.

- 167. Captain roof and rib out by 3rd crosscut number 1 _____ * 23
- 168. Captain DI stopping out by 3rd crosscut number 1 _____ * 27

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

- 169. The team informed Superintendent that they were sending 5.0% CH₄,
0 PPM CO and 19.2% O₂ also 2.0% CH₄, 0 PPM CO and 19.8% O₂ down
the return _____ * 51

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

- 170. Team conduct gas test upon reentering area at RA _____ * 24F
- 171. Captain DI for Patient in RA _____ * 35
- 172. Team assess if patient is OK _____ * 12
- 173. Immediately removed patient to FAB _____ * 42
- 174. Team left patient unattended _____ * 41
- 175. Team informed Superintendent of finding patient (by name) _____ * 51

Now the team is ready to advance ventilation to the 4th crosscut.

They must remove the stopping across number 1 entry out by the 3rd crosscut and
install in the crosscut at the caved at RA.

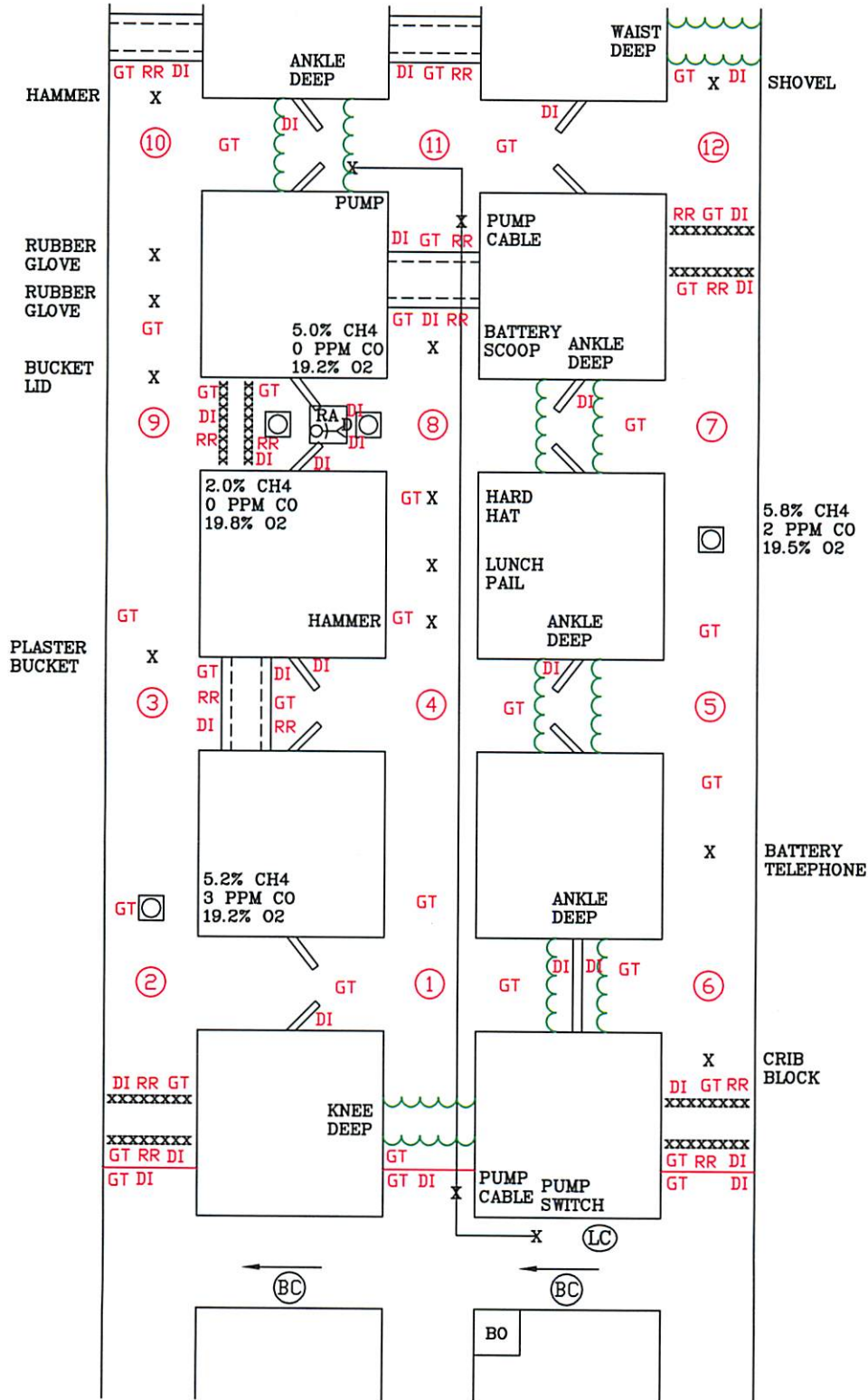
- 176. Team informed Superintendent of sending 5.2% CH₄, 3 PPM CO and
19.2% O₂ down the return _____ * 51
- 177. The team properly advanced air to 4th crosscut _____ * 51
- 178. Team failed to complete the problem in time A card rule number 3 (15 or 5
points).
- 179. Working on map after clock stops A card rule 4.

OTHER RULES THE TEAM MAY NEED DISCOUNTED FOR

180. Captain and other team member properly examining each apparatus during team checks	_____	* _____	<u>7</u>
181. Team traveling with more than 2 brattice cloths	_____	* _____	<u>51</u>
182. Team explored systematically	_____	* _____	<u>45</u>
183. Team member inby captain	_____	* _____	<u>23</u>
184. Team member breathing external air inby FAB	_____	* _____	<u>9</u>
185. Followed proper procedure during apparatus failure	_____	* _____	<u>10</u>
186. Gave proper notification to briefing officer of intent	_____	* _____	<u>18</u>
187. Notified briefing officer of ventilation change	_____	* _____	<u>19</u>
188. Took communication inby FAB	_____	* _____	<u>20</u>
189. All team members on line when traveling	_____	* _____	<u>21</u>
190. Any member over 25-foot from either stopping point	_____	* _____	<u>29</u>
191. Team caused explosion 30XmixtureX locations	_____	* _____	<u>31</u>
192. Team failed to moved irrespirable mixture	_____	* _____	<u>35</u>
193. Atmosphere of Briefing Officer irrespirable	_____	* _____	<u>36</u>
194. All 5 team members running	_____	* _____	<u>37</u>
195. Team receiving unauthorized information	_____	* _____	<u>38</u>
196. Team violates intent of the problem	_____	* _____	<u>49</u>

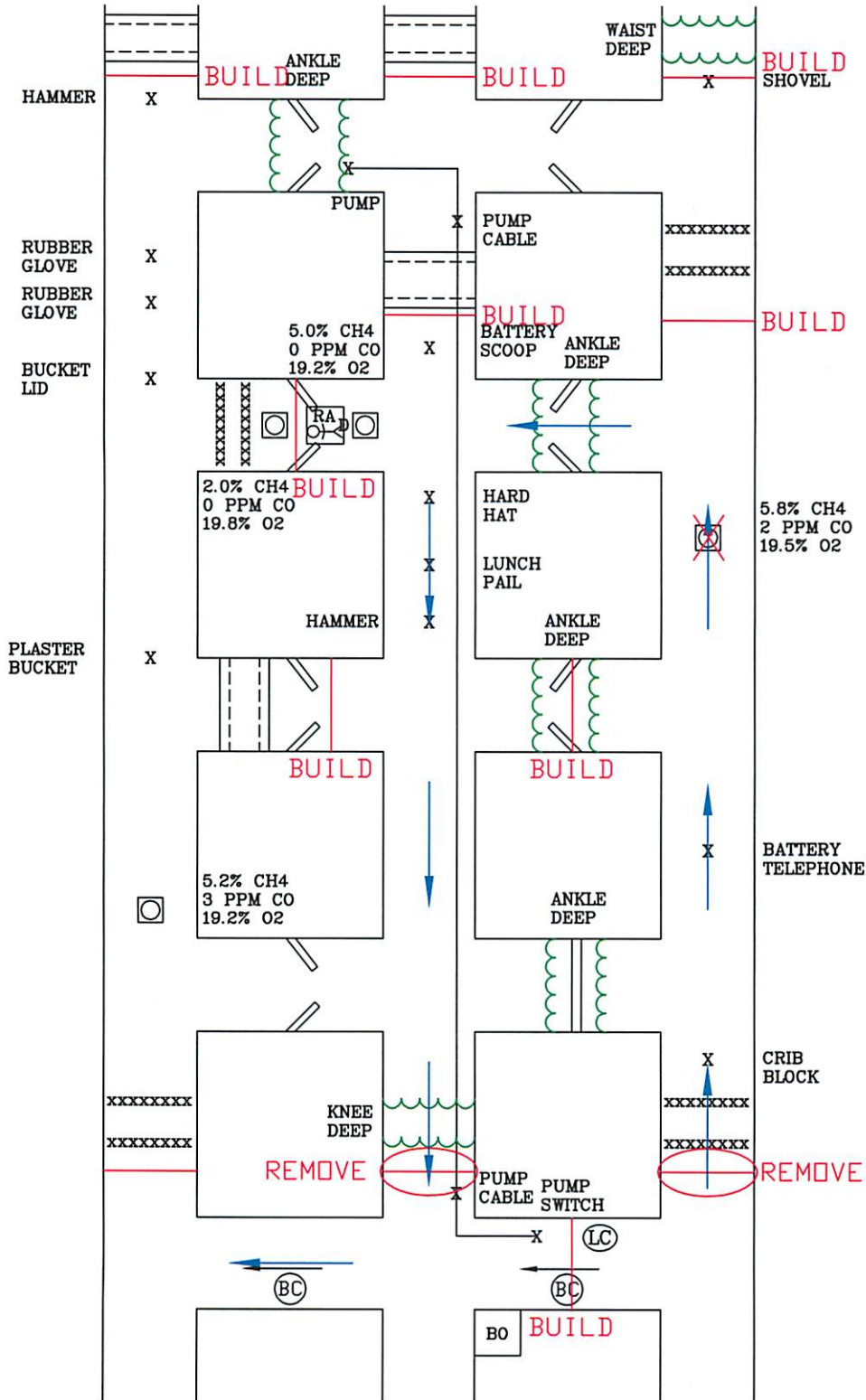
Team Stop

Scale: 1 inch = 20 feet



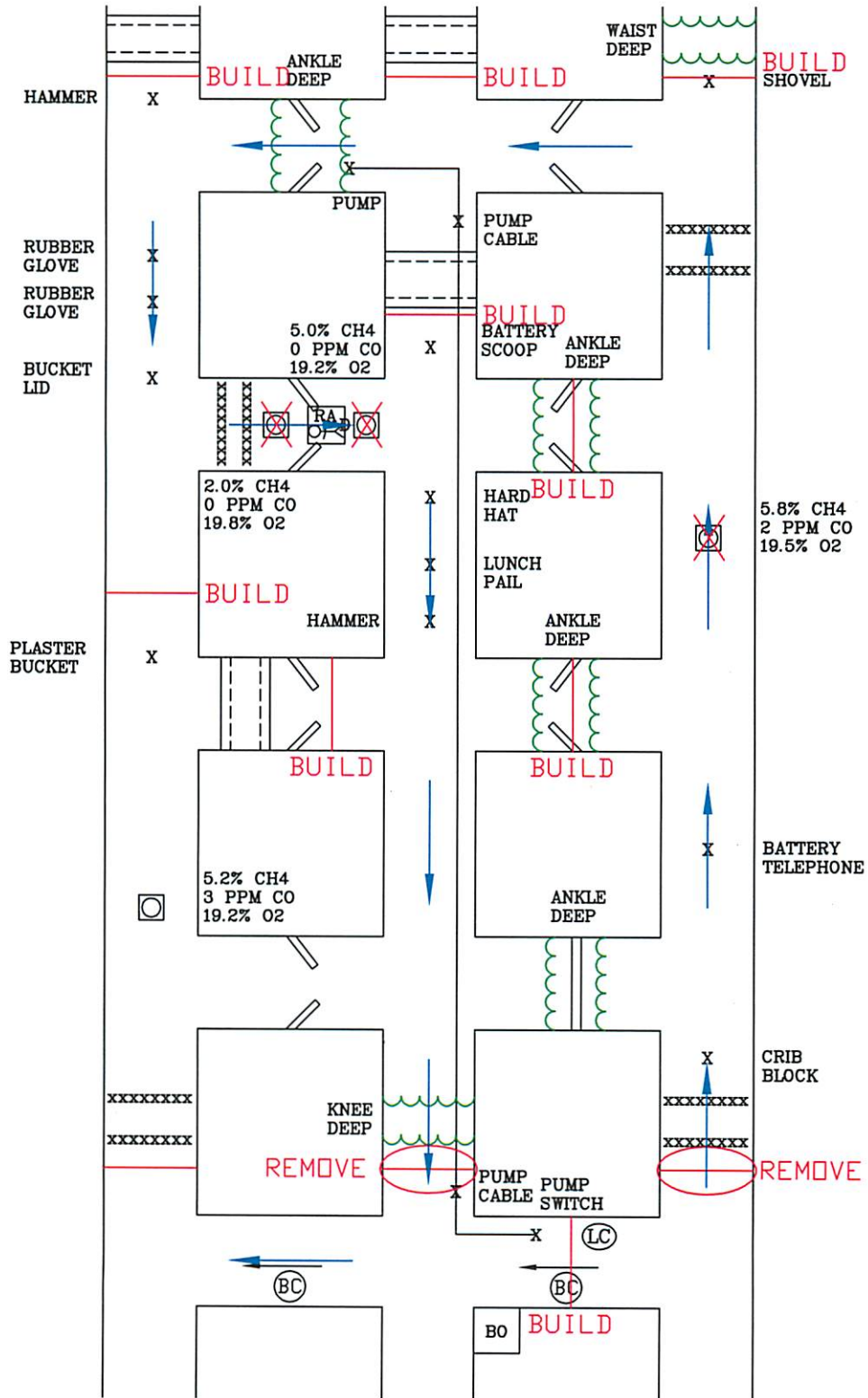
Ventilation #1

Scale: 1 inch = 20 feet



Ventilation #2

Scale: 1 inch = 20 feet



Ventilation #3

Scale: 1 inch = 20 feet

