Standard Operating Procedure: OXYGEN DEPLETION MONITOR

ALARM RESPONSE

**Purpose:** to provide step by step guidance on how to respond if the oxygen depletion monitor alarm sounds.

**Procedure:**

1) **Treat all alarms as real**
2) **NEVER unplug or disable oxygen sensor alarm**
3) O2 alarm will sound if oxygen levels drop below 19.5%.
4) **If alarm sounds, evacuate the room IMMEDIATELY and close the door.** Post the sign (refer to appendix 1, page 3 of this SOP) outside the door of the laboratory to ensure nobody enters the room.
5) During business hours, immediately contact the DOTS, Grace Flock @ 647-444-3596.
6) If you are unable to reach the DOTS, or the emergency is after hours call F&S hotline @8-3000 (416-978-3000) after you have evacuated the room and are in a different location.
7) **Qualified personnel will respond and test the environmental Oxygen levels.**
8) **DO NOT enter until oxygen levels have been tested.**
9) Ensure nobody enters the room until after the alarm has stopped, and oxygen levels have been tested and are safe.
10) **If a rescue is necessary, it is mandatory to call 911.**
11) **Nobody should attempt to rescue without a self-contained breathing apparatus.**
12) If no apparent reason triggered the alarm, it is possible that the sensor may need to be replaced. Email the DOTS (grace.flock@utoronto.ca) indicating room # and a brief description of the issue after you have taken appropriate safety
precautions (refer to bullet 4). In addition, inform your supervisor.

The table below illustrates the symptoms an individual will feel when exposed to an area with reduced oxygen levels. Effects may vary due to age.

<table>
<thead>
<tr>
<th>Oxygen Percentage Available</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Normal conditions, no effect.</td>
</tr>
<tr>
<td>19.5</td>
<td>OSHA oxygen-deficient atmosphere.</td>
</tr>
<tr>
<td>17</td>
<td>Muscular impairment, rapid breaths.</td>
</tr>
<tr>
<td>12</td>
<td>Dizziness, headache, rapid fatigue.</td>
</tr>
<tr>
<td>9</td>
<td>Unconsciousness.</td>
</tr>
<tr>
<td>7 to 6</td>
<td>Difficulty breathing, death in minutes</td>
</tr>
</tbody>
</table>
Appendix 1

DANGER

BEYOND THIS POINT THERE IS A POTENTIAL FOR OXYGEN DEFICIENCY

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