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C-A OPERATIONS PROCEDURES MANUAL

12.11 Oxygen Deficiency Hazard (ODH) Response

Text Pages 2 through 4

Hand Processed Changes

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Approved: _____ *Signature on File* _____
Collider-Accelerator Department Chairman Date

M. Wiplich

12.11 Oxygen Deficiency Hazard (ODH) Response

1. Purpose

The purpose of this procedure is to define the sequence of activities required to respond to Oxygen Deficiency Hazard (ODH) in an ODH0 area. ODH0 areas are:

- MP-6 Pit
- MP-7 Pit
- Mechanical Equipment (ME) Room
- Electrical Equipment (EE) Room
- Building Equipment (BE) Room

2. Responsibilities

It is the responsibility of the person, or persons, executing this procedure to observe all safety rules.

3. Prerequisites

The person or persons executing this procedure shall have all formal training required of a TVDG Operator including course OSH 151 LO/TO (Authorized).

4. Precautions

The use of portable oxygen monitors and personal alarms is recommended.

5. Procedure

5.1 An ODH hazard is presumed to exist if any siren is heard anywhere in the Building.

5.2 When any siren is heard, proceed to the Control Room immediately.

5.2.1 If in the MP-6 Pit, proceed via the Accelerator Room NOT the Mechanical Equipment Room.

5.2.2 If at either end of the Building Equipment Room, proceed out the exit door and reenter the building at the front.

5.2.3 If anywhere else, proceed to the Control Room via the most direct route.

5.3 Make an announcement over the PA system as follows:

"A possible Oxygen Deficiency Hazard exists in all areas designated as ODH0 areas. Evacuate all ODH0 areas immediately".

- 5.4 Activate BOTH Accelerator Room Purge Fans using the controls located on the panels to the left of the shielding doors in the Control Room and the ME Room.
- 5.5 Call MCR at X4662 or via radio and alert them to the a possible ODH and tell them the following:
 - 5.5.1 That the location is in Building 901A,
 - 5.5.2 The name of the person calling - your name,
 - 5.5.3 Request support if you are alone,
 - 5.5.4 That a potentially dangerous asphyxiating condition may exist and that the probable asphyxiant is Sulfur Hexafluoride (SF6),
 - 5.5.5 That Plant Engineering should be notified of the possible accumulation of asphyxiating gas in the manholes in the area.
- 5.6 Check the Oxygen Monitor readouts located in Rack 34 in the Control Room to determine the area in which the alarm occurred.
- 5.7 Check the remaining Delta F and Lumidor oxygen monitors and listen for an audible leak. If any of the following conditions occur - pull the Evac Alarm located in the lobby.
 - 5.7.1 two or more oxygen monitors show alarms
 - 5.7.2 one or more oxygen monitors show alarms and an audible leak is heard
- 5.8 Equipped with a Portable Oxygen Monitor, Portable Halogen Gas Leak Detector, a 2-way radio, one or more Operators and/or support personnel should enter the affected area as determined in step 5.6.

Caution:

Watch the readings on the Portable Monitors continuously. If the Portable Oxygen Monitor indicates an oxygen level below 19.5%, Evacuate The Area and call 2222 or 911 to request a sweep of the ODH area.

5.9 If Portable Oxygen and Halogen Gas Monitors indicate normal readings (greater than 20% Oxygen and no halogen gas) at the location of the alarming detector, the alarming detector is presumed to be defective and should be replaced as soon as possible.

5.10 Notification and reporting:

5.10.1 When the area is determined to be safe for occupancy, The alarm should be cleared.

5.10.2 The failure should be entered in the operations/maintenance log.

6. Documentation

Log entries as required.

7. References

None

8. Attachments

None