### ACTIVITY HAZARDS ANALYSIS

**Risk Assessment Code (RAC):**

| M |

<table>
<thead>
<tr>
<th>Date Prepared: February 9, 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: EC-HMQ</td>
</tr>
<tr>
<td>Prepared By: Karen M. González</td>
</tr>
</tbody>
</table>

---

#### Recommended Protective Clothing & Equipment:

- Ventilators, Oxygen supplies, etc

Unlikely, Catastrophic

---

#### JOB STEPS | HAZARDS | ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS | EM 385-1-1 (PARA REF)

**Confined Spaces**

- Intake Structure
- Outlet Works structures
- Structural drainage galleries
- Interior drainage structures
- Steam Gage house

**Lack of Oxygen**

1. Personnel entering confined spaces will be required to have the 4 hour confined space training class prior to entry.

**Flammable or toxic atmosphere**

2. Contact the appropriate project office to determine structures classified as confined spaces and the appropriate procedures prior to entry. This includes contacting the confined space coordinator and coordinating the confined space entry with him.

**Animals**

3. Where appropriate follow confined space procedures to test the atmosphere for lack of oxygen, flammable or toxic atmosphere.

**Insects**

4. Personnel should be wary of animals and pests lurking in the confined space – particularly outlet works and interior drainage structures. Inspect entrances for signs of animal habitation prior to entry.

**Heights and Ladders**

5. Personnel should note all areas where

---

#### Probability

<table>
<thead>
<tr>
<th>Severity</th>
<th>Frequent</th>
<th>Likely</th>
<th>Occasional</th>
<th>Seldom</th>
<th>Unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catastrophic</td>
<td>E</td>
<td>E</td>
<td>H</td>
<td>H</td>
<td>M</td>
</tr>
<tr>
<td>Critical</td>
<td>E</td>
<td>H</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>Marginal</td>
<td>H</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>Negligible</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
</tr>
</tbody>
</table>

---

**Recommended Protective Clothing & Equipment:**

- Ventilators, Oxygen supplies, etc

---

**Unlikely, Catastrophic**
the potential for falls may occur and ensure the fall protection appears sound before approaching the area.

6. Personnel should inspect ladders prior to their use and use safety equipment when needed.

7. Personnel should inspect areas where debris or slick surfaces are present to prevent tripping and slipping accidents. Appropriate footwear is needed to provide adequate traction.

8. Safety shoes are required for all personnel entering confined spaces to provide both adequate foot wear with traction and to protect the feet.

9. Temperatures in confined spaces may vary dramatically from the outside atmosphere, personnel must dress accordingly for these extremes including both cold.