

Job Safety Analysis

The Corporation of Offshore Reconnaissance & Polar Submersion is presenting their ROV, The Commander, to complete the numerous tasks at the ports of Long Beach California. The following is the JSA meant for this mission:

Task	Hazard	Recommendations
<p>Task 1</p> <ol style="list-style-type: none"> 1. Insert two rebar reinforcement rods into position in the steel baseplate 2. Install the frame onto the baseplate 3. Remove pin to release the chains holding the frame 4. Transport and position the hose for pouring concrete into the frame 5. Retrieve the three positioning beacons and return them to the surface 	<ol style="list-style-type: none"> 1) Chains falling onto the ROV when pin is released 2) Become entangle in chain once chain is released 	<p>Ensure that all equipment is secured properly and has some form of protection.</p> <p>Constantly monitor subsystems and sensitive sections of the ROV to guarantee safety and efficiency is maintained at the highest levels.</p>
<p>Task 2</p> <ol style="list-style-type: none"> 1. Disconnect the power cable from the platform 2. Turn valve to stop the flow of water to the platform 3. Disengage the locking mechanism at the base of the fountain 4. Remove the old fountain 5. Install the new fountain 6. Re-engage the locking mechanism at the base 	<ol style="list-style-type: none"> 1) Turn valve the wrong direction. 2) Dropping the old fountain. 3) Miss place the fountain when installing it. 	<p>Ensure that rotary manipulator is programmed to turn the right way when turning the valve.</p> <p>Ensure hydraulic gripper has enough pressure to sustain holding the fountain.</p> <p>When placing it make sure fountain positon in sight.</p>

<ol style="list-style-type: none"> 7. Turn the valve to return the flow of water to the platform 8. Reconnect the power cable to the platform 9. Return the old fountain to the surface side of the pool 		
<p>Task 3</p> <ol style="list-style-type: none"> 1. Use the stimulated Raman laser to determine in containments are present in two sediment samples 2. Collect 100mL sediment samples from the contaminated area and return it to the surface. The segments will be stimulated by agar 3. Collect 2 clams from the contaminated area to the surface 4. Place a cap on the contaminated area 	<ol style="list-style-type: none"> 1) Incorrectly identify the contaminated sample. 2) Collect more or less of the needed amount of sediment. 3) Drop the sediment while transporting to the collection basket. 	<p>Use cameras to get a clear sight of the samples.</p> <p>Have a way to indicate the amount of sediment that we've collected</p> <p>Have a secure grip on sediment collection device.</p>
<p>Task 4</p> <ol style="list-style-type: none"> 1. Locate four cargo containers 2. Insert the sensor provided by MATE into the port on the side of each to active the RFID 3. Use the data to determine the containers ID number, content, and if the contents are high risk cargo 	<ol style="list-style-type: none"> 1) Dropping the reed switch 2) Measure the distance incorrectly 3) Incorrectly determine the ID number 	<p>Ensure hydraulic gripper has enough pressure to sustain holding the reed switch.</p> <p>Have a technique to measure the distance between the cargo containers.</p> <p>Make sure the camera has a clear visible sight of the ID number</p>

4. **Attach a buoy marker to the U-bolt on the container with high risk cargo**
5. **Determine the distance from the high-risk container from the other three containers**
6. **Use distance and direction to make a survey map of the incident site.**

