|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Safe Job Procedure**  | **Hydrovac Underground Utilities** | **SJP #** | 00-0\_\_  |
| **Hazard Rating:** |[ ]  High |[ ]  Moderate |[ ]  Low |
| **Date Developed:** | Enter Date Here | **Revision Date:** | Enter Date Here |
| **Reviewed by:**(name & title) | Add name of Management representative | **Date:** | Enter Date Here |
| **Reviewed by:** (name & title) | Add name of worker representative.  | **Date:** | Enter Date Here |

**Purpose:** When a crew or unit is dispatched to a location where underground lines are present, the dig supervisor will adhere to the following job procedure. This procedure is designed to help identify the dangers involved in working with underground lines and to understand the precautions needed to minimize or eliminate personal injury and/or property and equipment damage.

**Instructions:**

* Management and Worker representatives must review this safe job procedure (SJP) prior to implementation, annually, or any time the task, equipment, or materials change.
* Do NOT perform this procedure until you have been appropriately trained and authorized to do so by your supervisor.

|  |
| --- |
| **Required Training:**  |
| * Class 3 or Class 1, Ground Disturbance
 |
| * On-the-job including PPE, Safe Hydro Excavating and use of Dig Tubes Procedures
 |

**Required PPE:**

|[x] [x] [ ] [x] [x] [x] [x] [x] [x] [x]
|  |
|  |  |  |  |  |  |  |  |  |  |
| Eye Protection | Half or full face mask | Face-Shield (as needed) | Safety Footwear | Hearing Protection for 100 dB | Type of Gloves | Hard Hat | Hi-visibility Vest | Fall restraint when applicable | No Loose clothing, jewelry  |

|  |
| --- |
| **Potential Hazards:**  |
| **Lines that have been laid in the sand run extra risk of damage. The water stream will pick up sand and act as an abrasive injection. This procedure will minimize this potential hazard.****Boom contact with overhead powerlines or structures*** Site assessment to keep a minimum approach distance of at least 3m/10ft.
* Use a spotter when moving the truck.

**Contact with hazardous substances*** Follow Utility owner dig procedures.
* Perform gas monitoring.

**Flying debris or contact with high-pressure air or water*** Keep the wand pointed down and away from body parts.
* Use proper length wand.
* Be mindful of where debris is going.
* Use the proper nozzle for the job.
* Monitor pressure and temperature gauges.
* Wear PPE.

**Falls into excavation*** Use fall restraint if working over or adjacent to a trench/hole > 4 feet deep.
* Park the truck at a proper distance away from the trench to prevent ground instability.

**Unexpected traffic (pedestrian or vehicular)*** Set up a perimeter with danger signs or flagging and cones to prohibit entry during work.

**Overexertion from lifting or tripping over rocks*** Keep back straight and lift with legs.
* Place rocks in a pile in a designated area.

**Suction injury from reaching in a clogged dig tube*** Disengage the vacuum and use a bar.
* Never dislodge by reaching your arm up the tube.
* Remove the narrower, bottom section of the tube from the vacuum system.
 |
| **Pre-Operational Safety Checks**  |
| * Conduct a site assessment to identify any overhead structures and power lines. Ensure all work will maintain the minimum approach distance of the boom or debris tank from any overhead powerlines.
* Conduct a ground stability assessment to identify any special precautions needed to avoid collapse or compromised trenches.
* Prevent entry into the work area as needed.
* Inspect all hydraulic equipment before use including all pre-trip items and emergency shut-off devices.
* Know beforehand where and how the debris slurry will be disposed of in accordance with site rules and local bylaws.
 |
| **Before Work Begins**1. Verify BC One Call/Locates have been completed. Refer to the Ground Disturbance Procedure.
2. Refer to and adhere to the client’s Safe Work Permit.
3. Identify and test the Emergency Shut Down Switch with all personnel.

**While You are Working**1. Locate utility. Start the excavation with an oval hole. Move the vacuum tube from side to side as you wash one side and then the other.
2. The wand must ALWAYS stay in a circular motion while excavating and NEVER be stationary for any length of time.
3. The maximum allowable pressure to be used is 3000 PSI for any type of line; pressure as low as 1000 PSI might be specified depending on the line being located.
4. Ensure the water temperature is not 38 degrees Celsius (100.4 degrees F).
5. It is recommended the pressure be reduced to a maximum of 1500 PSI when excavating below a depth of 45 cm (.45m) or within 100 cm (1 m) of the line.
6. Ensure the appropriate wand nozzle is used specific to the debris being removed.
7. Always maintain a minimum distance of 30 cm (12 inches) between the wand head and the utility being excavated.
8. Keep the hole dry and/or keep the slurry to a minimum. Ensure that during this entire procedure, your wand is worked in a circular motion.
9. Wash soil from below the line to be located.

**After you Finish**1. Check for overhead obstructions and return boom to cradle.
2. Ensure equipment is off and boom stored safely in the cradle with a load-rated strap as per CVSE.
3. Ensure the work area is clean, and any open excavations are made safe before leaving the site.

*If an emergency occurs while conducting this task, or there is an equipment malfunction, shut the equipment off immediately and follow the incident procedure.***REPORT ANY HAZARDOUS SITUATION TO YOUR SUPERVISOR/MANAGER OR EMPLOYER IMMEDIATELY** |