



UNC
ENVIRONMENT,
HEALTH & SAFETY

Job Safety Analysis

Safety Information for The University of North Carolina at Chapel Hill

JOB SAFETY ANALYSIS TOPIC:

Dental School Vacuum Receiver Tank
Unclogging

Title	Work Task	Hazards	Controls
Preplan the work	<p>Gather proper tools (pipe wrenches, pump, collection barrel, hose)</p> <p>Gather Proper PPE for the job and inspect it (safety glasses, gloves, Tyvek suit in certain situations)</p> <p>Contact UNC EHS to get an approved, prelabelled hazardous waste drum or other container depending on the volume of material and schedule the work so UNC EHS can monitor the process</p>	<p>Improper tools</p> <p>Improper PPE inspection/selection</p> <p>Improper or no hazardous waste collection container</p>	<p>Using improper tools or parts can lead to ergonomic issues that can lead to injury</p> <p>Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE</p> <p>Check with UNC EHS to ensure the container is correct for the task about to be completed</p>
Before the job	Don necessary PPE	Improper Donning	Improperly donning or not donning PPE can lead to an unnecessary exposure. Ensure all PPE is on correctly and passed inspection

Title	Work Task	Hazards	Controls
Opening Tank and Cleaning	<p>Lock out tag out system and close any valves</p> <p>Open the small porthole at the top of the tank</p> <p>Insert hose connected to pump and ensure hose is going into an approved hazardous waste collection drum</p> <p>Turn on pump and ensure pump is working properly</p> <p>Watch pump and hoses to throughout process</p>	<p>Hose not inserted properly into tank of drum</p> <p>Not watching pump and hoses during the whole process</p> <p>Potential Mercury Exposure</p> <p>Improper LOTO or valve closing</p>	<p>Visual check for LOTO and closed valves to prevent any spillage or exposure from a running system</p> <p>Visual checks of hose and pumps from beginning to end of process mitigates the potential for spills during the pumping process</p> <p>PPE and EHS monitoring will help mitigate and potential mercury exposure hazards</p>
Troubleshooting	<p>If pump is not picking up liquid but sight glass shows tank is holding check the end of the hose</p> <p>Move the hose as deep as it can go into the tank and around inside of tank</p> <p>If hose is not wet the site glass may be clogged</p> <p>Open up the large port slowly to visually check that tank is dry</p> <p>Take off sight glass if tank is dry and use small object to unclog sight glass and dump water into approved hazardous waste container</p>	<p>Potential Mercury Exposure</p> <p>Spill of Potential Hazardous Waste</p>	<p>Proper PPE and monitoring from EHS will mitigate exposure hazards</p> <p>Proper hazardous waste containers to collect the volume of liquid from sight glass will prevent spill from container or glass during unclogging process</p>

<p>Clean Up</p>	<p>Close both the large port opening and small port opening used during this process to ensure tank is sealed</p> <p>Seal collection drum and contact UNC EHS for pick up of barrel</p> <p>Clean the site to ensure ME rooms stay clean (bring out PPE and tools)</p> <p>Clean and store PPE properly</p>	<p>Improper closing of ports and collection drum</p> <p>Improper or lack of clean up from work</p> <p>Improper PPE storage</p>	<p>Double check both entries before leaving the area to avoid unnecessary spills</p> <p>Double check the seal on the collection drum, this will avoid unnecessary spills</p> <p>Have a known and regular place to store PPE that is climate controlled</p>
<p>Training</p>	<p>Employees must have hands on training in the proper use of this piece of equipment.</p>	<p>Supervisor is to fill out the turn in the form to UNC-CH ‘Supervisor Led Training Form’ and Environment, Health and Safety for documentation of proper training</p>	
<p>Created By</p>	<p>Cory Kirkland, Facilities Safety Officer Kevin Sloan, HVAC Auxiliaries Updated David Catalano 2020</p>		
<p>Referenced Material</p>	<p>Work done by employees and manufacturer recommendations</p>		
<p>Contact Info</p>	<p>For more information about this JSA and other JSAs, contact: <i>UNC-CH Department of Environment, Health and Safety</i> 1120 Estes Drive Extension, Chapel Hill NC 27599 CB# 1650 (919) 962-5507 ☎ https://ehs.unc.edu/</p>		 <p>The logo for UNC Environment, Health & Safety, featuring a blue icon of a classical building with columns and a dome on the left, and the text 'UNC ENVIRONMENT, HEALTH & SAFETY' in blue on the right.</p>