

## WASTEWATER NEUTRALIZATION VAULT Science Center

*Procedure for Working on Wastewater Tanks and Lines Inside Vault.*

**NOTE:** Air quality testing must be conducted prior to entering the vault.  
All procedures listed below must be followed.  
All lines referenced below are color coded as noted:

Sodium Hydroxide - orange

Sulfuric Acid - blue

### Procedures for Wastewater tanks and lines.

- 1) In Chemical Pump Control Room (in the Science Center), shut off power to control panel and LOTO.
- 2) Lock off caustic pump #1 and acid pump #2 and tag (in Science Center).
- 3) Proceed to Wastewater neutralization/treatment vault outside near loading dock.
- 4) Test Air Quality using the AIM 4 gas monitor. (i.e., follow established confined space entry procedures).
- 5) Turn on light and exhaust fan.
- 6) Contact Science Center building manager (x3000) and request to have all laboratories notified regarding no sink use.
- 7) Shut inlet valve #1 and outlet valve #2 and LOTO.
- 8) Immediately notify Ed Byrne or Don Rivers of any problems encountered with performing the above procedures.

### Safety Rules when working on wastewater lines and tanks

- 1) Wear rubber boots with good traction (or hip boots if kneeling).
- 2) Wear eye protection (splash-proof goggles).
- 3) Face protection (face shield) if splashing is anticipated.
- 4) Plug all power tools into GFCI receptacles.
- 5) Make sure all electric cords and tools are three pronged (or double-insulated) and prongs and cords have been inspected and are in good condition (i.e. no frayed cords or bent/missing/cut prongs).
- 6) Do not work alone in wastewater treatment vault.

7) Protective coveralls should be worn at all times.

**Additional requirements for work involving the chemical lines:**

8) If you need to work on chemical pumps, lines or mixing motors, you must put on protective coveralls suitable for use with Sodium Hydroxide and Sulfuric Acid (i.e., Saranex® Tyvek® /hood/boots/elastic wrist or equivalent as approved by the EH&S Office). Rubber boots or hip boots with good traction can be worn over the suit's booties. In addition, chemical resistant gloves must be worn. Glove types to be used for either chemical include the heavier/thicker style of one of the following: Neoprene, PVC, Butyl or Viton. Natural Rubber (not latex exam gloves) may be used for concentrations less than 50%.

**At the conclusion of the repair, a report is to be made to Ed Byrne documenting the problem and steps taken to correct the problem.**