



Safe Operating Procedures

SOPs are designed to help employees identify hazards, limitations, PPE, & safety training for specific equipment/tasks. Environmental Health and Safety, 414 J.M. Smith Hall

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|---|-----------------------------|---|
| No picture | Equipment/ Task Name | Servicing the feed line tube in the Acid Pump Room @ Student Rec |
| | Departments Impacted | <ul style="list-style-type: none"> Physical Plant (Zone Maintenance) |
| | Purpose | The purpose of servicing the feed line tube is to ensure that the swimming pool's Acid Feed System is not leaking Muriatic Acid. |
| Hazards | | |
| <p><u>Ventilation Hazard</u> – Improper storage of chemicals can cause a buildup of dangerous vapors. The storage area must have a functioning mechanical ventilation system to effectively lower/eliminate the concentration of these vapors.</p> <p><u>Pest/Rodent Hazard</u> – Employees should always visually check for pest/rodent haborage in outside storage rooms before entering. If pest/animals are found in these areas and have the potential to put your safety at risk, contact Pest Control before entering the storage room.</p> <p><u>Chemical Hazard</u> – Muriatic Acid can cause severe burns and may be fatal if swallowed or inhaled. Before maintaining or servicing the pump unit, wear PPE that offers eye and skin protection. PPE should always be corrosive resistant and cover exposed skin.</p> <p><u>Shock Hazard</u> – Servicing the pump unit has the potential to cause electric shock. Electrical equipment must be connected to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Always turn off the power before servicing or performing maintenance to the unit.</p> <p><u>Spill Hazard</u> – Employees may be at risk of stepping in spilled Muriatic Acid. Drum containers containing Muriatic Acid should always be stored in an upright position and placed on spill containment pallets. Employees must wear rubber boots whenever entering into the storage room.</p> <p><u>Hazardous Waste Hazard</u> – Disposal and/or removal of empty containers should comply with Resource Conservation and Recovery Act (RCRA), Environment Protection Agency (EPA), and Occupational Safety and Health Administration (OSHA). When removing or disposing empty containers:</p> <ul style="list-style-type: none"> Remove residual HCl(i.e. use oildry to absorb the residual and place solid acid oildry into a consolidation drum following RCRA Standards Obliterate labels | | |
| Limitations | | |
| <ul style="list-style-type: none"> Always power off equipment before servicing or maintaining the equipment. PPE <u>must</u> be worn at all times when entering the storage room. Mechanical ventilation systems and emergency shower/eyewash station should function properly. Do not puncture or pierce tubing. Plastic containers should never block access to the emergency shower and eyewash station. | | |
| Required Personal Protective Equipment | | Required Training |
| <ul style="list-style-type: none"> Uvex Stealth goggles Face Shield Corrosive resistant apron Long rubber gloves Disposable coveralls Rubber boots | | <ul style="list-style-type: none"> OSHA Hazard Communication Hazardous Waste Personal Protective Equipment |
| Proper Setup and Use | | |



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Prior to approaching the Acid Pump Room:

- Gather your Personal Protective Equipment.
- Ensure you have received the required training.

At the Acid Pump Room:

- Don your Personal Protective Equipment. Ensure all other PPE does not interfere with your breathing or vision.
- Visually inspect the room for pest/rodent haborage.
- Visually inspect the acid drums to check for potential leaks.
- Ensure that the power to the pump unit is turned off.

Servicing the Feed Line Tube:

- Checks for leaks before removing the pump unit's face plate.
- Remove the pump unit's face plate and place it on a flat surface to prevent it from falling.
- Remove the damaged feed line tube and dispose of it. Make sure acid is not pumping through the tube.
- Place the new tube into the unit and reattach the unit's face plate. Do not puncture the tube.
- Place the unit back on the wall bracket. Make sure the unit is secured to the bracket before removing your hands.
- Unscrew the feed line hose from the unit. Point hose away from face and body.
- Place feed line hose inside of the acid drum. Make sure the hose is secured and will not move.
- Insert washer into the end of the unit.
- Retrieve feed line hose from the acid drum. Make sure acid is not dripping from the hose.
- Screw the feed line hose to the unit. Hose should be properly secured to the unit before removing your hands.
- Turn on power. Visually check for leaks.

Completion:

- When finished servicing the feed line tub, check for spilled acid.
- Properly dispose of trash.
- Make sure the door is locked.

Diagrams / Illustrations

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| SOP ID | 002 | Related Documents | | Creation/Revision Date | 9/21/2017 |
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Suggestions, questions, or comments? Please contact EH&S