**Site-Specific Procedures for Chemical Waste Disposal via Neutralization**

**This SOP (reviewed and updated every 3 years or sooner), developed by:**

Chad Higginbotham, Instruction & Classroom Support Technician II 10/17/13

**Name and Title Date**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SOP Reviewed Date**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Print Name**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SOP Reviewed Date**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Print Name**

**Chemical Waste Disposal via Neutralization** **Procedures**

**Collection of Waste**

|  |  |
| --- | --- |
| **Who** | **Procedure** |
| **Lab Staff** | **All chemical waste should be collected in segregated containers (if necessary) in all laboratories.** It is the responsibility of the lab staff to ensure instructors and students are following waste collection procedures for a given lab period. |

**Disposal of Waste**

|  |  |
| --- | --- |
| **Who** | **Procedure** |
| **Lab Staff** | **Before disposing of chemical waste, ensure that it is non-hazardous and does not require waste pickup.** If the waste is considered hazardous, consult the “Disposal of Hazardous Waste” document for disposal instructions. |
| **Lab Staff** | **If waste is non-hazardous, ensure that it meets all standards of sanitary waste disposal for King County before pouring it down the drain.** Their regulations for chemical disposal can be found on their website: <http://www.kingcounty.gov/environment/wastewater/IndustrialWaste.aspx>. You can also contact the EHS department with questions. |
| **Lab Staff** | **Once certain that the chemical(s) can be poured down the drain, test the pH using a meter or strips.** Be sure to use safety precautions (i.e. goggles, apron, gloves) when performing this and the following steps. |
| **Lab Staff** | **If pH is below 5.5 (acidic), add a base (i.e. NaOH, KOH, NaHCO3) to bring the pH to between 5 and 9.** Depending on the acidity of the solution, different concentrations of base may be required for neutralization. |
| **Lab Staff** | **If pH is above 9 (basic), add an acid (i.e. HCl, HNO3, H2SO4) to bring the pH to between 5 and 9.** Depending on how basic the solution is, different concentrations of acids may be required for neutralization. |
| **Lab Staff** | **Once a pH measuring 5.5 – 9 has been reached, the chemical waste can be poured down the drain.** Flush liberally with cool water to ensure the waste has been discharged. |

**Recording of Waste Disposal**

|  |  |
| --- | --- |
| **Who** | **Procedure** |
| **Lab Staff** | **Once the chemical waste has been disposed of, record the following information in the form titled “Chemical Treatment Log:”**1. Chemical Name
2. pH of Chemical Waste
3. Volume Treated
4. Date
5. Initials of Lab Staff
 |