

Chapter 43: [Wastewater](#)

Wet or Chemical Lab Requirements

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URL: <https://www-esh.slac.stanford.edu/eshmanual/references/wastewaterReqLab.pdf>

1 Purpose

The purpose of these requirements is to protect water quality and maintain compliance with SLAC's [wastewater permit](#) by minimizing the potential for accidental release of hazardous chemicals to the sanitary sewer.

These requirements cover floor drains, chemical storage and disposal, secondary containment, and spill control inside wet or chemical laboratories.

They apply to workers (as *laboratory workers*), principal investigators, and laboratory managers.

2 Requirements

2.1 Floor Drain Protection

For detailed information on floor drains, see [Wastewater: Floor Drain Requirements](#).

2.2 Chemical Storage

1. Store chemicals on low shelves or under countertops, on textured rubber mats whenever possible.
2. Store chemicals behind protective barriers at least 1/5 the height of the tallest container.
3. Never store chemicals above a sink.
4. Keep flammable chemicals in an approved fire-proof cabinet.
5. Do not leave chemical cabinet doors unlatched.
6. Never store incompatible chemicals together. Avoid accidental mixing.

For additional, detailed information on how to store hazardous materials properly, see [Chapter 40, "Chemical Lifecycle Management"](#).

2.3 Chemical Disposal

1. Collect and segregate hazardous waste for proper disposal.
2. Use signage and training to inform personnel that hazardous material or hazardous waste must never be discharged directly to the sewer. Signs above sinks have been effective.
3. Contact the [wastewater program manager](#) about discharging of non-hazardous laboratory solutions to lab sinks. Solutions that are within permitted discharge specifications may be disposed of in the sanitary sewer through laboratory sinks. Any solutions that do not meet discharge specifications must be shipped off site for proper disposal through [Chemical and Waste Management](#). The permit discharge specifications require that a solution discharged to the sanitary sewer be non-hazardous, non-toxic to rats, rabbits, and Rainbow trout, and that it has a pH in the range of 6.0–11. (See [Laboratory Safety: Non-hazardous Waste Sink Disposal Procedure](#).)
4. If you are not certain if a material is permitted to be poured down a drain, ask your ESH coordinator or contact the wastewater program manager.
5. Dispose of mop water appropriately. If you expect a hazardous component based on operational knowledge, contact [Environmental Protection](#) for characterization and approval to discharge to the sanitary sewer. If the mop water contains hazardous components, contact [Chemical and Waste Management](#) for proper disposal.

For detailed information on how to properly dispose of hazardous materials, see [Chapter 17, “Hazardous Waste”](#).

2.4 Secondary Containment

1. Provide secondary containment for all hazardous chemicals and hazardous waste, including countertop flasks and squirt bottles.
2. Keep secondary containment clean and dry.
3. Never use a sink as secondary containment.

2.5 Spill Control

1. Clean up spills whenever they occur.
2. Keep a well-stocked, accessible spill kit in the area. Make sure you have spill-control supplies for the type of materials you use and store.
3. Ensure that employees are trained in SLAC emergency response procedures in the event of an accidental discharge or spill.

For additional information on how to handle spills, see [Chapter 16, “Spills”](#).

3 Forms

The following forms and systems are required by these requirements:

- None

4 Recordkeeping

The following recordkeeping requirements apply for these requirements:

- None

5 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [Chapter 43, “Wastewater”](#)
 - [Wastewater: General Requirements](#) (SLAC-I-750-0A16S-015)
 - [Wastewater: Floor Drain Requirements](#) (SLAC-I-750-0A16S-018)
- [Chapter 16, “Spills”](#)
- [Chapter 17, “Hazardous Waste”](#)
- [Chapter 40, “Chemical Lifecycle Management”](#)
- [Chapter 58, “Laboratory Safety”](#)
 - [Laboratory Safety: Non-hazardous Waste Sink Disposal Procedure](#) (SLAC-I-730-0A09C-009)

Other SLAC Documents

- [Environment Resources](#)
- [Chemical and Waste Management](#) (SharePoint)

Other Documents

- Silicon Valley Clean Water and West Bay Sanitary District. Mandatory Wastewater Discharge Permit No. WB 211216 ([WB 211216](#))