

Wastewater Slug Discharge Prevention and Emergency Notification

This Fact Sheet is designed to help Principal Investigators (PIs) and supervisors fulfill their responsibilities to train their staff on the Slug Control Plan (formerly Slug Discharge Prevention and Contingency Plan [SDPC Plan]). In 1999, East Bay Municipal Utility District (EBMUD) added a new condition to the UC Berkeley Wastewater Discharge Permit. It requires the campus to maintain and implement a Slug Control Plan to eliminate or minimize the potential for a slug discharge of any pollutant that could interfere with the EBMUD Wastewater Treatment Plant. This is a requirement of all pollutant sources in the EBMUD service area. Potential pollutant sources include laboratories, photo-processing operations, construction sites, physical plant operations and food processing venues.

What is a slug discharge?

A slug discharge is any discharge to the sanitary sewer of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge of:

- any hazardous waste,
- a substance that exceeds EBMUD Wastewater Control Ordinance limitations, or
- a substance that is prohibited by the *Drain Disposal Restrictions* document. (To obtain a copy, print one from the EH&S web site: ehs.berkeley.edu or call EH&S at (510) 642-3073.)

Why are slug discharges a problem?

The EBMUD Wastewater Treatment Plant treats conventional pollutants, such as organic total suspended solids or those that deplete the oxygen content of the water. Campus discharge limits are set to prevent damage to the sewage treatment process and to prevent toxic chemicals from passing through the treatment plant into San Francisco Bay or into the residual sludge.

The treatment plant uses bacteria in an oxygen-rich environment to break down sewage solids and to clean the water before it is discharged to the bay. The bacteria are sensitive to toxic chemicals and pH changes. A slug discharge of toxic material could kill the bacteria, rendering the treatment process ineffective. This could allow sewage-contaminated water to pass through to the bay.

Additionally, campus plumbers may be working on sections of the campus sanitary sewer system at any time. Harmful slug discharges could hurt these workers if they were exposed to a slug discharge without warning.



Slug Control Plan Components

The three components of the Slug Control Plan require hazardous chemical users to:

1. Implement Best Management Practices (BMPs) for slug discharge prevention.
2. Post slug discharge notification procedures in areas of chemical use and implement them in case of a spill to the drain.
3. Receive documented training on slug discharge notification procedures.

Best Management Practices (BMPs)

Following are general BMPs for slug discharge prevention applicable to chemical use, handling, and storage operations. These spill prevention measures should be standard operating procedures for campus hazardous material use operations.

Measures for containing toxic organic and inorganic pollutants:

- Avoid open container use of hazardous chemicals near sinks and floor drains.
- When open container use of chemicals near sinks and floor drains is unavoidable, cap or plug sinks and drains during chemical use.
- Store chemicals in tubs, cabinets, bermed or diked areas, or in other secondary containment.
- Avoid storing excess quantities of chemicals. Order only what you need and dispose of unwanted or expired chemicals through EH&S.
- Secure storage cabinets and shelves to prevent tipping or falling.
- Use proper containers and restraints.
- Maintain spill containment and clean-up materials nearby.
- Follow good housekeeping practices. Never store hazardous chemicals in sinks.

Inspection and maintenance of storage areas:

All chemical use and storage areas should be regularly inspected for proper application of BMPs. In chemical storerooms where floor drains go to the sanitary sewer, the floor drains should be plugged, except when they are in use (for example, when floors are mopped). Chemical storerooms should use removable drain plugs in such cases.

Material handling and transfer:

Chemicals transferred within buildings or between buildings should be placed in secondary containers that can contain more than 100% of the chemical, in case the primary container breaks. Please see EH&S Fact Sheet #17, "Transporting Chemicals Safely on Campus."

Shops, hazardous waste accumulation areas, satellite accumulation areas, or other hazardous material use areas must post the attached Slug Discharge Notification Procedure. This notification must be posted in all areas where there is the potential for a slug discharge to the sanitary sewer. All sinks must display the label below. For laboratories, this spill notification advisory is included in the Chemical Hygiene Plan (CHP) Emergency Procedures Section. Posting the CHP in the laboratory satisfies the EBMUD posting requirement. The CHP is available from your Department Safety Coordinator.

All personnel in operations that could cause a slug discharge must be trained on the contents of this Fact Sheet. For laboratory staff, reading and signing the CHP provides the required documented training. For all other hazardous chemical users, training should be documented on a roster that is kept on file.



EBMUD inspects the campus for indications of Slug Control Plan implementation. Inspectors look for BMP implementation and check to see that slug discharge notification procedures are posted in chemical use areas. EBMUD may also check the CHP or other personnel training records. EBMUD may issue a notice of violation if the spill notification requirements are not posted, if personnel are not trained, or if staff fails to implement the notification procedures. If violations are not corrected, they may impose monetary penalties or restrict the use of the drains. For questions related to Slug Control Plan requirements, contact EH&S at (510) 642-3073.

