Fixed Treatment Units

BRIEF

Policy Summary
Berkeley Lab maintains Fixed Treatment Units (FTUs) to protect the surrounding environment, minimize waste handling, and maintain compliance with East Bay Municipal Utility District (EBMUD) discharge limits. The Laboratory achieves this by:

- Maintaining permits for the FTUs on site
- Maintaining operating records required by the state of California
- Submitting periodic compliance reports to EBMUD
- Ensuring that operators are properly and adequately trained
- Informing EBMUD and the city of Berkeley of new waste streams, new treatment units, or other changes to the process or treatment units

Who Should Read This Policy
All Berkeley Lab employees, visitors, affiliates, and subcontractors who discharge to, or maintain records for, the FTUs located in Buildings 2, 67, 70A, and 77

To Read the Full Policy, Go To:
The POLICY tab on this wiki page

To Read the ES&H Program Details, Go To:
http://www.lbl.gov/ehs/pub3000/CH53.html

Contact Information

Waste: Water Treatment Units Subject Matter Expert
Environmental Services Group
EHSS Division

POLICY

A. Purpose
Lawrence Berkeley National Laboratory (Berkeley Lab) maintains Fixed Treatment Units (FTUs) to protect the surrounding environment, minimize waste handling, and maintain compliance with East Bay Municipal Utility District (EBMUD) discharge limits. The Laboratory achieves this by:

- Maintaining permits for the FTUs on site, and entering permit information into the California Environmental Reporting System (CERS)
- Maintaining operating records required by the state of California
- Submitting periodic compliance reports to EBMUD
- Ensuring that operators are properly and adequately trained
- Informing EBMUD and the city of Berkeley of new waste streams, new treatment units, or other changes to the process or treatment units
### B. Persons Affected

All Berkeley Lab employees, visitors, affiliates, and subcontractors who discharge to, or maintain records for, the FTUs located in Buildings 2, 67, 70A, and 77.

### C. Exceptions

None

### D. Policy Statement

1. Berkeley Lab operates four hazardous-wastewater-treatment units, or Fixed Treatment Units (FTUs).
2. State law requires all facilities treating hazardous waste to obtain authorization from the Department of Toxic Substances Control (DTSC) and the city of Berkeley.
3. The Environmental Services Group (ESG) has prepared and maintains permit documentation, including notifications and plans required by the tiered permitting program.
4. When a new FTU is planned, the city of Berkeley and EBMUD must be notified 60 days before the first treatment of waste begins.
5. When there is a change to an existing treatment unit, a permit amendment must be submitted to the city of Berkeley and EBMUD (Work Process A, General Requirements).

### E. Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
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</table>
| Principal investigators and supervisors | • Ensure that environmental laws, regulations, and policies are followed  
                                        • Request technical advice on environmental requirements and appropriate compliance strategies from ESG  
                                        • Provide employee training in operational requirements for hazardous-waste treatment and maintain records of such training. Training must include the 24-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) with annual eight-hour refresher.  
                                        • Ensure that FTU operation follows acceptable written operating procedures and that any required records are current (FTU daily log and monthly calibration records)  
                                        • Notify EBMUD and the EHSS Division within 30 minutes of any unplanned accidental releases to the sanitary sewer. Take immediate action to stop the release.  
                                        • Prepare budget requests for and manage environmental protection upgrades and corrective actions for institutional projects |
| Employees                      | • Follow applicable environmental laws, regulations, and policies  
                                        • Remain fully aware of the environmental impact of their activities, and comply with all requirements that govern those activities  
                                        • Adhere to all environmental requirements contained in the Laboratory’s city of Berkeley and EBMUD permits for their facility  
                                        • Perform activities within acceptable operating standards, and maintain current records whenever required  
                                        • Participate in energy-conservation, recycling, pollution-prevention, and waste-minimization programs  
                                        • Take immediate action to stop unplanned releases to the sanitary sewer, and report all instances of unplanned wastewater discharges to EBMUD and EHSS within 30 minutes of the release  
                                        • Complete all required training provided by supervisors and EHSS |
| Environmental Services Group   | • Develops Laboratory policies and procedures to assure that operations are conducted in an environmentally safe manner and that they fully comply with all applicable environmental laws and regulations  
                                        • Prepares environmental compliance reports as required by the city of Berkeley and EBMUD; prepares EBMUD permit  
                                        • Assesses current and planned Berkeley Lab programs, and helps to define environmental-protection compliance upgrades and corrective actions  
                                        • Makes presentations and participates in discussions regarding FTU matters with Berkeley Lab employees, the city of Berkeley, DTSC, and EBMUD  
                                        • Manages the preparation of FTU operating permit applications, permit amendments, and permit renewals with the city of Berkeley and EBMUD  
                                        • Curtails or suspends any operations that pose an immediate danger to members of the public or the environment  
                                        • Monitors Laboratory wastewater discharges to the sanitary sewer to verify compliance with applicable regulations and permits  
                                        • Investigates reports of unplanned sanitary sewer discharges and notifies EBMUD in a timely manner, as required  
                                        • Coordinates and represents Berkeley Lab activities during environmental audits and inspections by the city of Berkeley and EBMUD |
| Primary FTU Operator           | • Responsible for the overall operation of the FTU  
                                        • Maintains daily log and monthly calibration records  
                                        • Receives 24-hour OSHA training |
F. Definitions/Acronyms

See the ES&H Manual *Fixed Treatment Units program* for technical terms related to the details of this policy and its implementation.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Department of Toxic Substances Control (DTSC)</td>
<td>The department within the California Environmental Protection Agency that regulates hazardous-waste management and remedial actions</td>
</tr>
<tr>
<td>East Bay Municipal Utility District (EBMUD)</td>
<td>The local municipal wastewater treatment facility that accepts and regulates sanitary sewer discharges from Berkeley Lab</td>
</tr>
<tr>
<td>Fixed Treatment Unit (FTU)</td>
<td>A treatment unit that treats hazardous waste and discharges treated wastewater to the sanitary sewer under a permit with the city of Berkeley and possibly EBMUD</td>
</tr>
<tr>
<td>Hazardous wastes</td>
<td>Wastes exhibiting any of the following characteristics: ignitability, corrosivity, reactivity, or toxicity. In addition, the EPA has listed specific wastes as hazardous that do not necessarily exhibit these characteristics.</td>
</tr>
<tr>
<td>Pollution prevention</td>
<td>Reducing or eliminating waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream</td>
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G. Recordkeeping Requirements

- Discharge permits are maintained by the Environmental Services Group of EHSS.
- Daily logs and monthly calibration records are maintained by the Primary FTU Operator.

H. Implementing Documents

<table>
<thead>
<tr>
<th>Document number</th>
<th>Title</th>
<th>Type</th>
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<tbody>
<tr>
<td>07.09.004.001</td>
<td>Fixed Treatment Units</td>
<td>Program</td>
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<tr>
<td>07.09.004.002</td>
<td>Work Process A, General Requirements</td>
<td>Process</td>
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<tr>
<td>N/A</td>
<td>City of Berkeley permit</td>
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I. Contact Information

**Waste: Water Treatment Units Subject Matter Expert**  
Environmental Services Group  
EHSS Division

J. Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>By whom</th>
<th>Revision Description</th>
<th>Section(s) affected</th>
<th>Change Type</th>
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<td>1/2/2012</td>
<td>0</td>
<td>R. Fox</td>
<td>Rewrite for wiki (brief)</td>
<td>All</td>
<td>Minor</td>
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<tr>
<td>3/28/2013</td>
<td>1</td>
<td>R. Fox</td>
<td>Rewrite for wiki (policy)</td>
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Document Information

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<td>Effective date:</td>
<td>3/27/2013</td>
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<td>Next review date:</td>
<td>3/27/2016</td>
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Source Requirements Documents

- H&SC 25200.3, Permitting of Facilities
- 22 CCR 67450, Requirements for Units and Facilities Deemed to Have a Permit by Rule
- 22 CCR 66260.10 et. seq., Hazardous Waste Management System: General — Definitions
- EBMUD Permit #6600791 (Berkeley Lab main site), #50238911 (B77 FTU)
- EBMUD Ordinance 311
- 22 CCR 66265.190 et. seq., Interim Status Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities — Tank Systems

Implementing Documents

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