

**CERTIFIED MAIL  
(Return Receipt Requested)  
Certified Mail No. 7005 2570 0000 6630 2157**

May 16, 2013

Mr. Ron Pauer  
Lawrence Berkeley National Laboratory  
1 Cyclotron Road, MS-75R0123  
Berkeley, California 94720

Dear Mr. Pauer:

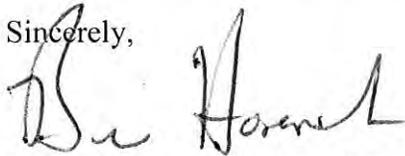
**Re: Revision of Wastewater Discharge Permit No. 0660079 1**

Enclosed is the revised Wastewater Discharge Permit (Permit) for the Lawrence Berkeley National Laboratory located at 1 Cyclotron Road, Berkeley in California. The permit expiration date is July 7, 2017. Please read the Terms and Conditions carefully. As a Permit Holder, you are legally responsible for complying with all Permit conditions and requirements.

Lawrence Berkeley National Laboratory shall report to the EBMUD Environmental Services Division any permanent or temporary changes to the premises or operations that either significantly affects the quality or volume of wastewater discharge, or deviate from the terms and conditions under which this Permit is granted.

If you have any questions regarding this matter, please contact Audrey Comeaux of the Environmental Services Division at (510) 287-1199.

Sincerely,



BENNETT K. HORENSTEIN  
Manager of Environmental Services

BHK:ALC:alc

Enclosures

July 14, 2014

Mr. Robert Fox  
Lawrence Berkeley National Laboratory  
1 Cyclotron Road, 75R0123  
Berkeley, CA 94720

Dear Mr. Robert Fox:

RE: Wastewater Discharge Permit Rate Revisions - Permit No. 06600791

The East Bay Municipal Utility District Board of Directors has approved changes to the wastewater system rates and charges, effective July 1, 2014. Wastewater treatment charges **and** monitoring fees have increased. The table below compares the treatment unit rates effective for the past year, fiscal year 2014 (FY14), with the new unit rates effective July 1, 2014 for the new fiscal year 2015 (FY15).

|                      | Rates Effective |       |          |
|----------------------|-----------------|-------|----------|
|                      | FY15            | FY14  | % Change |
| <b>Flow (\$/Ccf)</b> | 0.787           | 0.735 | + 7.1%   |
| <b>CODF (\$/lb)</b>  | 0.294           | 0.268 | + 9.7%   |
| <b>TSS (\$/lb)</b>   | 0.431           | 0.396 | + 8.8%   |

The billing conditions for your Wastewater Discharge Permit have been revised to reflect the revised rates and charges. New permit pages incorporating the above revisions are enclosed. Please replace the relevant pages in your Permit with the enclosed pages. As a Permit holder, you are legally responsible for complying with all Permit conditions and requirements.

If you have any questions regarding the Permit revisions, please contact your Wastewater Control Representative, Audrey Comeaux at (510) 287-1199.

Sincerely,



JACQUELINE T. KEPKE  
Manager Environmental Services Division

JTK:ALC:jso

Enclosures



# WASTEWATER DISCHARGE PERMIT

Terms and Conditions

Lawrence Berkeley National Laboratory

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## GENERAL CONDITIONS

- I. Lawrence Berkeley National Laboratory (LBNL) shall comply with all items of the *Standard Terms and Conditions* (STC) of this Permit.
- II. Lawrence Berkeley National Laboratory shall practice pollution prevention techniques to reduce or eliminate pollutants released from the facility. Wastes remaining should be recycled whenever possible.

Lawrence Berkeley National Laboratory shall review its waste generating processes and practices to identify pollution prevention opportunities.

Documentation of the identified waste pollution prevention shall be maintained at the facility and updated periodically to reflect any actions implemented to minimize wastes. The documentation must be made available for review upon request. Documentation that has been required by another agency will be acceptable.

- III. This local permit regulates LBNL except for the groundwater discharge and the metal finishing operations at Building 77. The groundwater discharge is regulated under Permit No. 5034789 1. The metal finishing operations at Building 77 are subjected to 40 CFR 433 regulations and are regulated under Permit No. 5023891 1.

## COMPLIANCE REQUIREMENTS

- I. Lawrence Berkeley National Laboratory shall implement a slug control plan and containment plan to eliminate or minimize the potential for an accidental or slug discharge of pollutants into the sanitary sewer system. The slug control plan shall contain a response procedure posted in the work areas where spills are most likely to occur. The updated Slug Control Plan shall be due to the Environmental Services Division by September 30, 2013.
- II. Lawrence Berkeley National Laboratory shall not discharge any recyclable wastes from any vehicle maintenance facility to the sanitary sewer. This includes used oil, used antifreeze, and solvents from solvent sinks.



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### REPORTING REQUIREMENT

Lawrence Berkeley National Laboratory shall certify that the Laboratory is in compliance with the Radioactive Limits of this Permit. The certification shall be prepared in accordance with Section B Part V of STC and is due December 1 of every year during the effective period of this Permit.

### WASTEWATER DISCHARGE LIMITATIONS

- I. Lawrence Berkeley National Laboratory shall not discharge wastewater from a side sewer into a community sewer if the strength of the wastewater exceeds the following local limits:

| REGULATED PARAMETER                                 | DAILY MAXIMUM (mg/L)   |
|---|------------------------|
| Cadmium   | 1                      |
| Chromium, total                                     | 2                      |
| Copper  | 5                      |
| Lead  | 2                      |
| Nickel  | 5                      |
| Silver  | 1                      |
| Zinc, total   | 5                      |
| pH  | not less than 5.5 S.U. |
| Total Identifiable Chlorinated Hydrocarbons* (TICH) | 0.5                    |

\* As defined in Section E, STC, and includes the following chlorinated hydrocarbons: Bromodichloromethane; Carbon tetrachloride; Chlorobenzene; Chloroethane; 2-Chloroethylvinyl ether; Chloroform; Chloromethane; Dibromochloromethane; 1,2-Dichlorobenzene; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,1-Dichloroethene; trans-1,2-Dichloroethene; 1,2-Dichloropropane; cis-1,3-Dichloropropene; trans-1,3-Dichloropropene; Methylene chloride; 1,1,2,2-Tetrachloroethane; Tetrachloroethene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethene; Trichlorofluoromethane; Vinyl chloride.

- II. Radioactive Limits – Lawrence Berkeley National Laboratory shall not discharge or cause to be discharged any radioactive wastewater into a community sewer except when the Laboratory is authorized to use radioactive material by the Nuclear Regulatory Commission or other governmental agency empowered to regulate the use of radioactive materials and when the wastewater is discharged in strict conformity with current Nuclear Regulatory Commission regulations and recommendations for safe disposal, and in compliance with all rules and regulations of State and local regulatory agencies.



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## SELF-MONITORING REPORTING REQUIREMENTS

- I. Lawrence Berkeley National Laboratory shall monitor and sample the wastewater discharge into the community sewer in accordance with Section C of STC. The sampling shall be performed at the locations and frequency for the parameters specified below.
- II. The sampling locations are described below and are identified in the map entitled *Sanitary Sewer System* of this Permit:
  - Side Sewer No. 1 (SS#1) – Hearst Monitoring Station near Hearst Street and Highland Pl.
  - Side Sewer No. 2 (SS#2) – Strawberry Monitoring Station at a manhole off Centennial Drive, near Swimming Pools.
- III. Lawrence Berkeley National Laboratory shall sample the wastewater discharge on representative operating days during the months of:

| Parameter | Frequency         | Report Due by                                     |
|-----------|-------------------|---|
| pH        | September & March | November 1 <sup>st</sup> & May 1st                |
| TICH      | September & March | November 1 <sup>st</sup> & May 1st                |
| TSS       | September & March | November 1 <sup>st</sup> & May 1st                |
| CODF      | September & March | November 1 <sup>st</sup> & May 1st                |
| PCB's     | September & March | December 15 <sup>th</sup> & June 15 <sup>th</sup> |
| Metals    | September & March | November 1 <sup>st</sup> & May 1st                |

| Parameter                      | Sample Type | Analytical Method     |
|--------------------------------|-------------|-----------------------|
| pH                             | Grab        | SM 4500 H+B           |
| TICH                           | Grab        | EPA 624               |
| Chemical Oxygen Demand, (CODF) | Composite   | EPA 410.4 or SM 5220D |
| Total Suspended Solids (TSS)   | Composite   | SM 2540D              |
| Cadmium                        | Composite   | EPA 200.7             |
| Chromium                       | Composite   | EPA 200.7             |
| Copper                         | Composite   | EPA 200.7             |
| Lead                           | Composite   | EPA 200.7             |
| Nickel                         | Composite   | EPA 200.7             |
| Silver                         | Composite   | EPA 200.7             |
| Zinc                           | Composite   | EPA 200.7             |
| PCB's                          | Grab        | EPA 1668C             |



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## SELF-MONITORING REPORTING REQUIREMENTS (continued)

- IV. A self-monitoring report shall be submitted to the Environmental Services Division by the specified due date. The report shall contain the following information at a minimum:
1. Effluent flow meter readings at the beginning and end of the sampling period and the volume of wastewater discharged in gallons.
  2. Description of each grab and composite sample collected.
  3. List any unusual conditions or changes in operations at the time of sampling.
  4. All laboratory results and the corresponding chain of custody documentation.
  5. Certification and signature prepared in accordance with Section B Part VI of STC, "Signature Requirements".



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Rates Effective July 1, 2015, or  
Revised Rates Approved by EBMUD Board of Directors thereafter

### CALCULATION OF WASTEWATER DISPOSAL SERVICE CHARGES

|  |         |
|--|---------|
| Total Suspended Solids (TSS) =           | \$0.447 |
| Chemical Oxygen Demand-Filtered (CODF) = | \$0.306 |
| Volume =                                 | \$1.033 |

Step 1: Convert concentrations of TSS and CODF to \$/Ccf for each side sewer (SS).  
The concentration in mg/L, multiplied by 0.00624 and the rate/pound, equals \$/Ccf.  
The side sewer rate is the sum of TSS + CODF + Volume.

|           | <u>Side sewer #1</u> |              | <u>Side sewer #2</u> |              |  |
|-----------|----------------------|--------------|----------------------|--------------|--|
|           | mg/L                 | \$/Ccf       | mg/L                 | \$/Ccf       |  |
| TSS       | 292                  | 0.814        | 249                  | 0.695        |  |
| CODF      | 116                  | 0.221        | 66                   | 0.126        |  |
| Volume    |                      | <u>1.033</u> |                      | <u>1.033</u> |  |
| SS rate = |                      | \$2.069      |                      | \$1.854      |  |

Step 2: Determine the rate to be applied to each water meter. The meter rate is the sum of the individual side sewer contributions.

|                  | <u>Side sewer #1</u> |        | <u>Side sewer #2</u> |        | Total<br>for meter |
|------------------|----------------------|--------|----------------------|--------|--------------------|
| <u>Meter No.</u> | %                    | \$/Ccf | %                    | \$/Ccf | \$/Ccf             |
| 70027448         | 70%                  | 1.448  | 30%                  | 0.556  | \$2.00             |
| 00004710         | 70%                  | 1.448  | 30%                  | 0.556  | \$2.00             |
|                  |                      |        |                      |        | Total              |

Step 3: Wastewater Charges are determined by multiplying the metered volume by the percent discharged, plus any fixed volume, all multiplied by the meter rate.

| <u>Account Number</u> | <u>Meter Number</u> | <u>Units</u> | <u>Conversion Factor</u> | <u>Percent Discharged</u> | <u>Fixed Volume Ccf/month</u> | <u>Meter Rate \$/Ccf</u> |
|-----------------------|---------------------|--------------|--------------------------|---------------------------|-------------------------------|--------------------------|
| 6600801               | 70027448            | Ccf          | 1.0                      | 56%                       | 0                             | \$2.00                   |
| 6600791               | 00004710            | Ccf          | 1.0                      | 56%                       | 0                             | \$2.00                   |

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Rates Effective July 1, 2015, or  
Revised Rates Approved by EBMUD Board of Directors thereafter

### MONITORING and TESTING CHARGES

EBMUD Inspections Per Year: 2 \$1,180.00 \$2,360.00 /year

Analyses Per Year:

| Parameter                             | Tests per year | Charges per test | Total Charges per year                |
|---------------------------------------|----------------|------------------|---------------------------------------|
| pH                                    | 4              | \$25.00          | \$100.00                              |
| TSS                                   | 4              | \$45.00          | \$180.00                              |
| CODF                                  | 4              | \$60.00          | \$240.00                              |
| EPA 624                               | 4              | \$255.00         | \$1,020.00                            |
| EPA 200.7 Metals                      | 4              | \$115.00         | \$460.00                              |
| Total Monitoring and Testing Charge = |                |                  | \$4,360.00 / year<br>\$363.33 / month |



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### FEES AND WASTEWATER CHARGES

The annual permit fee is due when billed by the District: \$2,450

Monthly Monitoring Charge: \$363.33

### WASTEWATER DISPOSAL SERVICE CHARGE

| Account Number | Meter Number | Units | Conversion Factor | Percent Discharged | Fixed Volume Ccf / month | Meter Rate \$/Ccf |
|----------------|--------------|-------|-------------------|--------------------|--------------------------|-------------------|
| 6600801        | 70027448     | Ccf   | 1.0               | 56%                | 0                        | \$2.00            |
| 6600791        | 00004710     | Ccf   | 1.0               | 56%                | 0                        | \$2.00            |

The District may change the terms and conditions of a Wastewater Discharge Permit, including changing the average limits on the elements of wastewater strength and rates and charges, from time to time as circumstances may require. Treatment rate updates shall be provided by means of a rate revision letter. The District shall allow a discharger reasonable time to comply with any District required changes in the permit except that a change in average limits of wastewater strength shall immediately affect calculation of the wastewater disposal charge.

Charges listed in this Permit will be assessed on EBMUD bills in accordance with the EBMUD Meter Reading Schedule.

#### Authorization

**Permit Holder** shall report to EBMUD, Wastewater Department any changes, permanent or temporary, to the premises or operations that significantly change the quality or volume of the wastewater discharge or deviation from the terms and conditions under which this permit is granted.

**Permit Holder** is hereby authorized to discharge wastewater to the community sewer, subject to said Applicant's compliance with EBMUD Wastewater Control Ordinance as well as permit terms and conditions.

Effective: July 8, 2012

Expiration: July 7, 2017

*Ben Horenstein*

Director, Wastewater Department

July 31, 2015

Date

See Also EBMUD Standard Terms and Conditions at

<http://www.ebmud.com/wastewater/commercial-waste/permits-and-wastewater-discharges/>