



August 9, 2024

Brendan J. Mulholland
Lawrence Berkeley National Laboratory
One Cyclotron Road, MS75B 0101
Berkeley, CA 94720

RE: Issuance of Zero Discharge Permit to **Lawrence Berkeley National Laboratory Building 77 - Permit no. 50238911**

Dear Brendan J. Mulholland:

The enclosed Zero Discharge Permit No. 50238911 prohibits the discharge of wastewater to the community sewer from the federally regulated process 40 CFR 433 Metal Finishing Point Source Category at **Lawrence Berkeley National Laboratory Building 77**, located at **One Cyclotron Road, Berkeley**.

All wastewater discharges from **Lawrence Berkeley National Laboratory Building 77**, actions and reports, shall be in accordance with the terms and conditions of this permit. Enclosed with this wastewater discharge permit is a copy of the East Bay Municipal Utility District's (EBMUD's) Standard Terms and Conditions. Please note that EBMUD's Wastewater Control Ordinance (Ordinance) is available online at <https://www.ebmud.com/wastewater/collection-treatment/wastewater-control-ordinance-discharge-limits/>. As a permit holder you are legally responsible for complying with all requirements set forth in these documents.

Lawrence Berkeley National Laboratory Building 77 shall report to the EBMUD Wastewater Environmental Services Division any changes, permanent or temporary, to the premises or operations that significantly affect the quality or volume of wastewater discharge from the facility or deviate from the terms and conditions under which the Permit was granted.

If you have any questions regarding this permit, please contact John Roberts of the Wastewater Environmental Services Division at (510) 287-1651 or cleanbay@ebmud.com.

Sincerely,

A handwritten signature in blue ink that reads 'Adam Kern'.

Adam Kern
Supervisor of Pretreatment and Pollution Prevention Programs

Enclosures:
Zero Discharge Permit
Permit Standard Terms and Conditions
Discharge Prevention Compliance Report Form

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**East Bay Municipal Utility District
Special Discharge Permit Number 50238911**

Discharger:	Lawrence Berkeley National Laboratory Building 77
Discharge Location:	One Cyclotron Road, Berkeley
Discharger Mailing Address:	One Cyclotron Road, MS75B 0101 Berkeley, CA 94720
Discharger Contact:	Brendan J. Mulholland, (510) 644-2735

In accordance with the provisions of East Bay Municipal Utility District's (EBMUD) Wastewater Control Ordinance (Ordinance) No. 358-13, **Lawrence Berkeley National Laboratory Building 77** shall not discharge to the sanitary sewer any wastewater generated from processes regulated by 40 CFR 433 Metal Finishing Point Source Category. Compliance with this permit does not relieve the **Lawrence Berkeley National Laboratory Building 77** of its obligations to comply with all applicable pretreatment regulations, standards, or requirements under local, state, and federal laws, including any such regulations, standards, requirements, or laws that come into effect during the term of this permit. Noncompliance with any term or condition of this permit shall constitute a violation of the Ordinance and this permit and could subject the **Lawrence Berkeley National Laboratory Building 77** to enforcement action.

All reports and notifications required by this permit shall be submitted in accordance with the Terms and Conditions below. Contact information for EBMUD is as follows:

East Bay Municipal Utility District
Wastewater Environmental Services Division
Attn: John Roberts
375 11th Street, MS 702
Oakland, CA 94607-4240

(510) 287-1651
(866) 403-2683 (Non-Business Hours)
cleanbay@ebmud.com

Electronic submittals are acceptable to meet a deadline, but a hardcopy with wet signature for all reports shall be mailed to the address above. This permit will become effective on the date issued and will expire five years from the effective date.

Sincerely,



Amit Mutsuddy, P.E.
Director of Wastewater

Effective Date: 8/8/2024



ZERO DISCHARGE PERMIT # 50238911

TERMS AND CONDITIONS

I. GENERAL CONDITIONS

1. **Lawrence Berkeley National Laboratory Building 77** shall comply with EBMUD Wastewater Control Ordinance, available at www.ebmud.com.
2. **Lawrence Berkeley National Laboratory Building 77** shall comply with all items of the current *Standard Terms and Conditions* (STC) or most updated STC available at <https://www.ebmud.com/wastewater/commercial-waste/permits-and-wastewater-discharges/>.

II. OPERATING REQUIREMENTS

1. **Lawrence Berkeley National Laboratory Building 77** shall not discharge to the sanitary sewer any wastewater generated from processes regulated by 40 CFR 433 Metal Finishing Point Source Category.
2. **Lawrence Berkeley National Laboratory Building 77** shall not discharge to the sanitary sewer any hazardous waste, as defined in Section 25117 of the California Health and Safety Code.
3. **Lawrence Berkeley National Laboratory Building 77** shall post a "Discharge Prohibition Sign" in the work area which states the discharge of process or industrial wastes to the sewer is prohibited.
4. **Lawrence Berkeley National Laboratory Building 77** shall comply with the recordkeeping, reporting, labeling, exporting, and container requirements set forth in 40 CFR Part 262 for generators of hazardous waste.

III. EFFLUENT LIMITATIONS

1. Specific Effluent Limitation Requirements

The discharge limits for your **Lawrence Berkeley National Laboratory Building 77** are listed below. However, discharge of process wastewater to the sanitary sewer is prohibited by this Permit.

EFFLUENT LIMITATIONS

REGULATED PARAMETER	(LOCAL LIMITS) INSTANTANEOUS MAXIMUM (mg/L, unless noted)	(LOCAL LIMITS) DAILY MAXIMUM (mg/L)	40 CFR 433.17	
			Daily Maximum (mg/L)	Maximum Monthly Average (mg/L)
Arsenic	-	2	-	-
Cadmium, total	-	1	0.11	0.07
Chlorinated Hydrocarbons (total identifiable) ¹	0.5	-	-	-
Chromium, total	-	2	2.77	1.71



ZERO DISCHARGE PERMIT # 50238911

TERMS AND CONDITIONS

REGULATED PARAMETER	(LOCAL LIMITS) INSTANTANEOUS MAXIMUM (mg/L, unless noted)	(LOCAL LIMITS) DAILY MAXIMUM (mg/L)	40 CFR 433.17	
			Daily Maximum (mg/L)	Maximum Monthly Average (mg/L)
Copper, total	-	5	3.38	2.07
Cyanide	5	-	1.20	0.65
Iron, total	-	100	-	-
Lead, total	-	2	0.69	0.43
Mercury	-	0.05	-	-
Nickel, total	-	5	3.98	2.38
Oil and Grease	100	-	-	-
pH (in S.U.) ²	not less than 5.5 ³	-	-	-
Phenolic compounds	100	-	-	-
Silver, total	-	1	0.43	0.24
Temperature ⁴	150F	-	-	-
Total Toxic Organics (TTO) ⁵	-	-	2.13	-
Zinc, total	-	5	2.61	1.48

¹ Total Identifiable Chlorinated Hydrocarbons (TICH) - The sum of the concentrations of all quantifiable values equal to or greater than the detection limit for all chlorinated hydrocarbons identified by EPA Method 624.

² S.U. – Standard Units

³ pH is treated as instantaneous maximum limit. **Lawrence Berkeley National Laboratory Building 77** shall not discharge wastewaters with pH greater than or equal to 12.5 s.u. (40 CFR 261.22(a)(1)).

⁴ 150F (65.5C), or any thermal discharge which as a result of temperature and/or volume causes the influent of the wastewater treatment plant to exceed 104F (40C).

⁵ The abbreviation TTO means total toxic organics, which is the summation of all quantifiable values greater than 0.01 milligram per liter (mg/L) for the following toxic organics:

Acenaphthene, Acrolein, Acrylonitrile, Benzene, Benzidine, Carbon tetrachloride (tetrachloromethane), Chlorobenzene, 1,2,4-Trichlorobenzene, Hexachlorobenzene, 1,2-Dichloroethane, 1,1,1-Trichloroethane, Hexachloroethane, 1,1-Dichloroethane, 1,1,2-Trichloroethane, 1,1,2,2-Tetrachloroethane, Chloroethane, Bis (2-chloroethyl) ether, 2-Chloroethyl vinyl ether (mixed), 2-Chloronaphthalene, 2,4,6-Trichlorophenol, Parachlorometa cresol, Chloroform (trichloromethane), 2-Chlorophenol, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 3,3-Dichlorobenzidine, 1,1-Dichloroethylene, 1,2-Trans-dichloroethylene, 2,4-Dichlorophenol, 1,2-Dichloropropane, 1,3-Dichloropropylene (1,3-dichloropropene), 2,4-Dimethylphenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 1,2-Diphenylhydrazine, Ethylbenzene, Fluoranthene, 4-Chlorophenyl phenyl ether, 4-Bromophenyl phenyl ether, Bis (2-chloroisopropyl) ether, Bis (2-chloroethoxy) methane, Methylene chloride (dichloromethane), Methyl chloride (chloromethane), Methyl bromide (bromomethane), Bromoform (tribromomethane), Dichlorobromomethane, Chlorodibromomethane, Hexachlorobutadiene, Hexachlorocyclopentadiene, Isophorone, Naphthalene, Nitrobenzene, 2-Nitrophenol, 4-Nitrophenol, 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, N-nitrosodimethylamine, N-nitrosodiphenylamine, N-nitrosodi-n-propylamine, Pentachlorophenol, Phenol, Bis (2-ethylhexyl) phthalate, Butyl benzyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Diethyl phthalate, Dimethyl phthalate, 1,2-Benzanthracene (benzo(a)anthracene), Benzo(a)pyrene (3,4-benzopyrene), 3,4-Benzofluoranthene (benzo(b)fluoranthene), 11,12-Benzofluoranthene (benzo(k)fluoranthene), Chrysene, Acenaphthylene, Anthracene, 1,12-Benzoperylene (benzo(ghi)perylene), Fluorene, Phenanthrene, 1,2,5,6-Dibenzanthracene (dibenzo(a,h)anthracene), Indeno(1,2,3-cd) pyrene (2,3-o-phenylene pyrene), Pyrene, Tetrachloroethylene, Toluene, Trichloroethylene, Vinyl chloride (chloroethylene), Aldrin, Dieldrin, Chlordane (technical mixture and metabolites), 4,4-DDT, 4,4-DDE (p,p-DDX), 4,4-DDD (p,p-TDE), Alpha-endosulfan, Beta-endosulfan, Endosulfan sulfate, Endrin, Endrin aldehyde, Heptachlor, Heptachlor epoxide, (BHC-hexachloro-cyclohexane), Alpha-BHC, Beta-BHC, Gamma-BHC, Delta-BHC, (PCB-polychlorinated biphenyls), PCB-1242 (Arochlor 1242), PCB-1254 (Arochlor 1254), PCB-1221 (Arochlor 1221), PCB-1232 (Arochlor 1232), PCB-1248 (Arochlor 1248), PCB-1260 (Arochlor 1260), PCB-1016 (Arochlor 1016), Toxaphene, 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)

IV. REPORTING REQUIREMENTS

1. Annual Certification



ZERO DISCHARGE PERMIT # 50238911 TERMS AND CONDITIONS

Lawrence Berkeley National Laboratory Building 77 shall submit a Discharge Prevention Compliance Report annually, certifying that there had been no discharge of regulated process wastewater to the sanitary sewer. A blank copy of the reporting form is enclosed with this permit. The Discharge Prevention Compliance Report shall meet signatory requirements per 40 CFR 403.12(l). As part of the Discharge Prevention Compliance Report, **Lawrence Berkeley National Laboratory Building 77** shall submit all waste off-haul records (manifests) for the twelve-month reporting period. If waste off-hauling did not occur during the reporting period, a written explanation as to the reason is required. This report is due every year on the date that the permit was signed.

2. Planned Changes

Lawrence Berkeley National Laboratory Building 77 must give notice to EBMUD 90 days before any facility expansion, production increase, or process modifications that result in new wastewater discharges or a change in the nature of the current wastewater discharges. **Lawrence Berkeley National Laboratory Building 77** shall report to EBMUD Wastewater Environmental Services Division any permanent or temporary changes to the premises or operations that result in:

- a. Discharge of wastewater from current processes regulated under 40 CFR 433 Metal Finishing Point Source Category.
- b. Addition of any new processes regulated under 40 Code of Federal Regulations, Part 405 through Part 471.
- c. Discharge of any wastewater other than sanitary wastewater.
- d. Deviation from the Terms and Conditions under which this Permit is granted.

3. Self-Reporting Violations

- a. **Lawrence Berkeley National Laboratory Building 77** shall notify EBMUD via phone or email within 24 hours of becoming aware of any of the following violations:
 - i. any discharge of wastewater from a categorical process to the community sewer
 - ii. discharges prohibited by EBMUD Wastewater Control Ordinance, Title II
- b. **Lawrence Berkeley National Laboratory Building 77** shall submit a written report to EBMUD within five days of becoming aware of a violation. The report shall include the following information:
 - i. the date and time of the violations
 - ii. the cause of the violation
 - iii. a description of the violation, including what was discharged
 - iv. the volume of the discharge
 - v. the duration of the discharge violation including start and end times and dates
 - vi. analytical result, if available, with chain of custody and other pertinent documentation
 - vii. measures taken to correct the violation
 - viii. measures taken to prevent reoccurrence

V. EBMUD INSPECTION

1. EBMUD may inspect the facilities of **Lawrence Berkeley National Laboratory Building 77** to ascertain whether the provisions of this permit are being met and the wastewater discharge limits are being complied with. **Lawrence Berkeley National Laboratory Building 77** shall allow EBMUD or its representatives ready access at all reasonable times to all parts of the premises for the purposes of inspection or sampling or in the performance of any of their duties.