

CERTIFIED MAIL
(Return Receipt Requested)
Certified Mail No. 7004 1160 0007 3362 4064

July 6, 2007

Mr. Robert Fox
Lawrence Berkeley National Laboratory
1 Cyclotron Road
Berkeley, California 94720

Dear Mr. Fox:

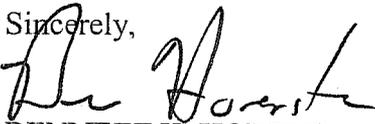
Re: Wastewater Discharge Permit No. 0660079 1

Enclosed is the Wastewater Discharge Permit (Permit) for the Lawrence Berkeley National Laboratory located at 1 Cyclotron Road, Berkeley in California, effective July 8, 2007 through July 7, 2012. 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 affect 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 Cynthia Soohoo of the Environmental Services Division at (510) 287-0290.

Sincerely,

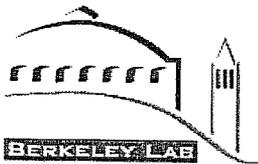


BENNETT K. HORENSTEIN
Manager of Environmental Services

BHK:CLS:cls

Enclosures

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RECEIVED

MAY 04 2007

ENVIRONMENTAL SERVICES DIV.

Environment, Health & Safety Division
Environmental Services Group

CERTIFIED

Ms. Cynthia Soohoo
Wastewater Control Representative
East Bay Municipal Utility District
Source Control Division
P.O. Box 24055
Oakland, CA 94623-1055

April 30, 2007
ES-07-019

Subject: EBMUD Permit #06600791 Renewal Application

Dear Ms. Soohoo:

Enclosed is the renewal application for Berkeley Lab's site-wide EBMUD permit #06600791. For Berkeley Lab's permit renewal, it is requested that EBMUD consider removing 2-chloroethylvinyl ether from Berkeley Lab's Total Identifiable Chlorinated Hydrocarbons list used for monitoring Berkeley Lab's effluent. There is some precedence for this action in the Code of Federal Regulations Title 40, Part 433.12(a) where it states, "If monitoring is necessary to measure compliance with the total toxic organics standard, the industrial discharger need analyze for only those pollutants which would reasonably be expected to be present." The pollutant of concern, 2-chloroethylvinyl ether, is not expected to be present in Berkeley Lab's effluent for the following reasons:

- 2-Chloroethylvinyl ether is not currently listed in Berkeley Lab's Chemical Management System which tracks Berkeley Lab's chemical inventory;
- 2-Chloroethylvinyl ether has not been detected in Berkeley Lab's effluent for the last seven years; and
- 2-Chloroethylvinyl ether has not been processed through the Berkeley Lab's Hazardous Waste Handling Facility for waste disposal in the last seven years.

Thank you for considering the removal of 2-chloroethylvinyl ether as a pollutant of concern from Berkeley Lab's monitoring requirements. Should you require further information or have any questions, please contact me at (510) 486-7327 or via e-mail at "rafox@lbl.gov."

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sincerely,

Robert Fox
Environmental Specialist

Enclosures:

Permit #06600791 Renewal Application

cc. with enclosure:

S. Black

S. Blair

M. Dong

H. Hatayama

R. Pauer

K. Abbott, DOE/BSO

M. Gross, DOE/BSO



WASTEWATER DISCHARGE PERMIT

Terms and Conditions

APPLICANT INFORMATION

APPLICANT BUSINESS NAME Lawrence Berkeley National Laboratory ^{Regents of the University of California}		PERMIT NUMBER 0660079 1	
ADDRESS OF SITE DISCHARGING WASTEWATER 1 Cyclotron Road STREET ADDRESS			
Berkeley, CA CITY		94720 ZIP CODE	
PERSON TO BE CONTACTED REGARDING THIS APPLICATION Robert Fox NAME			
rafox@lbl.gov ELECTRONIC MAIL ADDRESS		(510) 486-7327 (510) 486-6603 TELEPHONE NUMBER FACSIMILE NUMBER	
PERSON(S) TO RECEIVE PERMIT AND CORRESPONDENCE IF DIFFERENT THAN PERSON SIGNING APPLICATION Robert Fox NAME			
1 Cyclotron Road 85B0198, Berkeley, CA 94720 MAILING ADDRESS			
Ron Pauer NAME			
1 Cyclotron Road 85B0198, Berkeley, CA 94720 MAILING ADDRESS			
PERSON TO BE CONTACTED IN THE EVENT OF AN EMERGENCY LBNL Fire Department NAME			
(Alameda County Fire) DAYTIME TELEPHONE NUMBER		(510) 486-7911 (510) 486-7911 NIGHTTIME TELEPHONE NUMBER	
AUTHORIZATION Robert Fox, Environmental Specialist is authorized to sign reports, documents, and other correspondence required by this Permit. NAME & TITLE			
CERTIFICATION			
<p><i>I understand that I am legally responsible for discharge of wastewater from the facility and for complying with the Terms and Conditions of this Wastewater Discharge Permit.</i></p> <p><i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i></p>			
Robert Fox NAME		Environmental Specialist TITLE	
 SIGNATURE (TO BE SIGNED BY CHIEF EXECUTIVE OFFICER OR DULY AUTHORIZED REPRESENTATIVE. SEE CERTIFICATION REQUIREMENTS ON REVERSE)		April 30, 2007 DATE	
1 Cyclotron Road 85B0198 MAILING ADDRESS		(510) 486-7327 PHONE NUMBER	
Berkeley, CA 94720			



An application consists of the following forms and documents in this file. Each of the forms listed below must be completed when applying for a wastewater discharge permit for groundwater. The instructions follow each form where applicable.

- Applicant Information – name of applicant, facility address, mailing address, contact information.
- Process Description – description of wastewater generating processes, pretreatment facilities and type of waste generated.
- Schematic Flow Diagram – flow diagram of major processes and pretreatment facilities listed in Process Description.
- Building Layout – site layout showing building outline, property lines, water lines, sewer lines, sample point, etc.
- Strength Summary – wastewater flow rate, discharge frequency, and wastewater strength determination.
- Water Source and Use - incoming and outgoing water/wastewater flow calculations.

Please send the application to:

EBMUD
Environmental Services Division
P. O. Box 24055, MS#702
Oakland, CA 94623-1055

Questions? Please call the Environmental Services Division information line at (510) 287-1651.



WASTEWATER DISCHARGE PERMIT

Regents of the University of California **Terms and Conditions**

APPLICANT BUSINESS NAME Lawrence Berkeley National Laboratory

PROCESS DESCRIPTION

The information on this form provides a description of wastewater generating processes, characteristics of the wastewater, and waste management activities. Instructions are on the back of this form.

Permit Number
0660079 1

BUSINESS ACTIVITY Non-commercial research and development	Standard Industrial Classification 8733	Business Classification Code 7300
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PROCESSES

Process Description	Wastewater Characteristics	Schematic Process Number
Please see Attachment A for SIC codes indicating Lab activities, site map, and sewer system map.	Metals, chlorinated hydrocarbons, cyanide, phenolic compounds, oil and grease.	

POLLUTION PREVENTION TECHNIQUES / BEST MANAGEMENT PRACTICES (BMPs)

Administrative controls: EH&S training for all employees, safety meetings, Activity Hazard Documents and other emergency plans, self-assessment inspections, equipment calibration and protective maintenance, sinks labeled "No Hazardous Waste," occasional articles in Lab wide media.

Engineering controls: Holding tanks or sumps and alarm systems on fixed treatment units. Five units are permitted as DTSC FTUs. Two of these units also have a separate permit (metal finishing category) from EBMUD. The Lab also has a separate permit from EBMUD for discharge of treated groundwater.

PRETREATMENT

Pretreatment System	Design Capacity	Loading Rate	Size	Side Sewer Number
<input type="checkbox"/> filtration				
<input checked="" type="checkbox"/> grease trap/oil and water separator	FTU003, B76: 200gpd		Sump: 250 gal	2
<input type="checkbox"/> granular activated carbon				
<input type="checkbox"/> sedimentation				
<input checked="" type="checkbox"/> pH adjustment	FTU004, B70A: 27 gpm	4 gpm	2 mixing tanks with 500 gal	1
<input type="checkbox"/> chlorination	FTU005, B2: 25 gpm	2-3 gpm (est)	2 tanks of 500 gal plus	1
<input type="checkbox"/> chemical precipitation			125-gal sump tank	
<input type="checkbox"/> other (describe)				
<input type="checkbox"/> none				

PROCESS GENERATED WASTE

Waste / Disposal Method	Annual Waste Generation	
	Quantity	Unit
Please see Attachment B for all waste removal data. Manifests are available for inspection.		

INSTRUCTIONS FOR COMPLETING APPLICANT INFORMATION

Please Type or Print the Requested Information

Applicant's Business Name – Enter the name of the business that has legal responsibility for wastewater discharge, including responsibility for any enforcement actions or penalties imposed by the District.

Permit Number – The permit number will be provided by EBMUD.

Address of Site Discharging Wastewater – Enter the street address of the premises discharging the wastewater.

Application Contact – Enter the name, electronic mail address, telephone number, and facsimile number of the person to be contacted regarding the information reported in this application.

Permit and Correspondence Contact(s) - Enter the name and mailing address of the person(s) who should receive a copy of this permit and respective correspondence.

Emergency Contact - Enter the name, daytime and nighttime telephone numbers of the person to be contacted in case of an emergency regarding discharges/spills to the sanitary sewer system.

Authorization – Enter the name and title of the person authorized to sign all correspondence pertaining to this permit.

Certification – Enter the name and title of the person signing the application, and their mailing address and phone number. The person signing the application must meet the signatory criteria of 40 CFR 403.12 (l). Persons meeting these criteria include:

- 1) A responsible corporate officer, such as:
 - a. a president, vice-president, secretary, treasurer, or other person performing similar policy or decision making functions or;
 - b. a manager of one or more manufacturing, production, or operating facilities. The facility must employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars). The person must have authority to sign documents.
- 2) A general partner or sole proprietor.
- 3) A duly authorized representative. The duly authorized representative must be:
 - a. an individual having responsibility for the overall operation of the facility from which the wastewater discharge originates. Examples include plant manager, field superintendent, or environmental manager;
 - b. authorized in writing by a person described in paragraph 1) or 2). The written authorization must be submitted to the District.

Return the Signed Original Application to:

East Bay Municipal Utility District
Environmental Services Division, MS 702
P.O. Box 24055
Oakland, CA 94623-1055

Permit # 06600791

Process Description

Attachment A

Facility SIC Codes

Site Map

Site Sewer System Map

SIC CODES

2741 Miscellaneous publishing

2899 Chemical preparations, nec

Fabricated Metal Products

3444 Sheet metal work

3471 Plating and polishing

3479 Metal coating and allied services

3499 Fabricated metal products, nec

Electronic and Other Electric Equipment

3672 Printed circuit boards

3674 Semiconductors and related devices

Instruments and Related Products

3821 Laboratory apparatus and furniture

3844 X-ray apparatus and tubes

Trucking and Warehousing

4226 Special warehousing and storage, nec

Business Services

7349 Building maintenance services, nec

7375 Information retrieval services

7376 Computer facilities management

7378 Computer maintenance and repair

7379 Computer related services, nec

7384 Photofinishing laboratories

Automotive Repair, Services, and Parking

7538 General automotive repair shops

7539 Automotive repair shops, nec

7549 Automotive services, nec

Miscellaneous Repair Services

7623 Refrigeration service and repair

7629 Electrical repair shops, nec

7692 Welding repair

7699 Repair services, nec

Health Services

8011 Offices and clinics of medical doctors

8042 Offices and clinics of optometrists

8049 Offices of health practitioners, nec
8071 Medical laboratories
8093 Specialty outpatient clinics, nec
8099 Health and allied services, nec

Engineering and Management Services

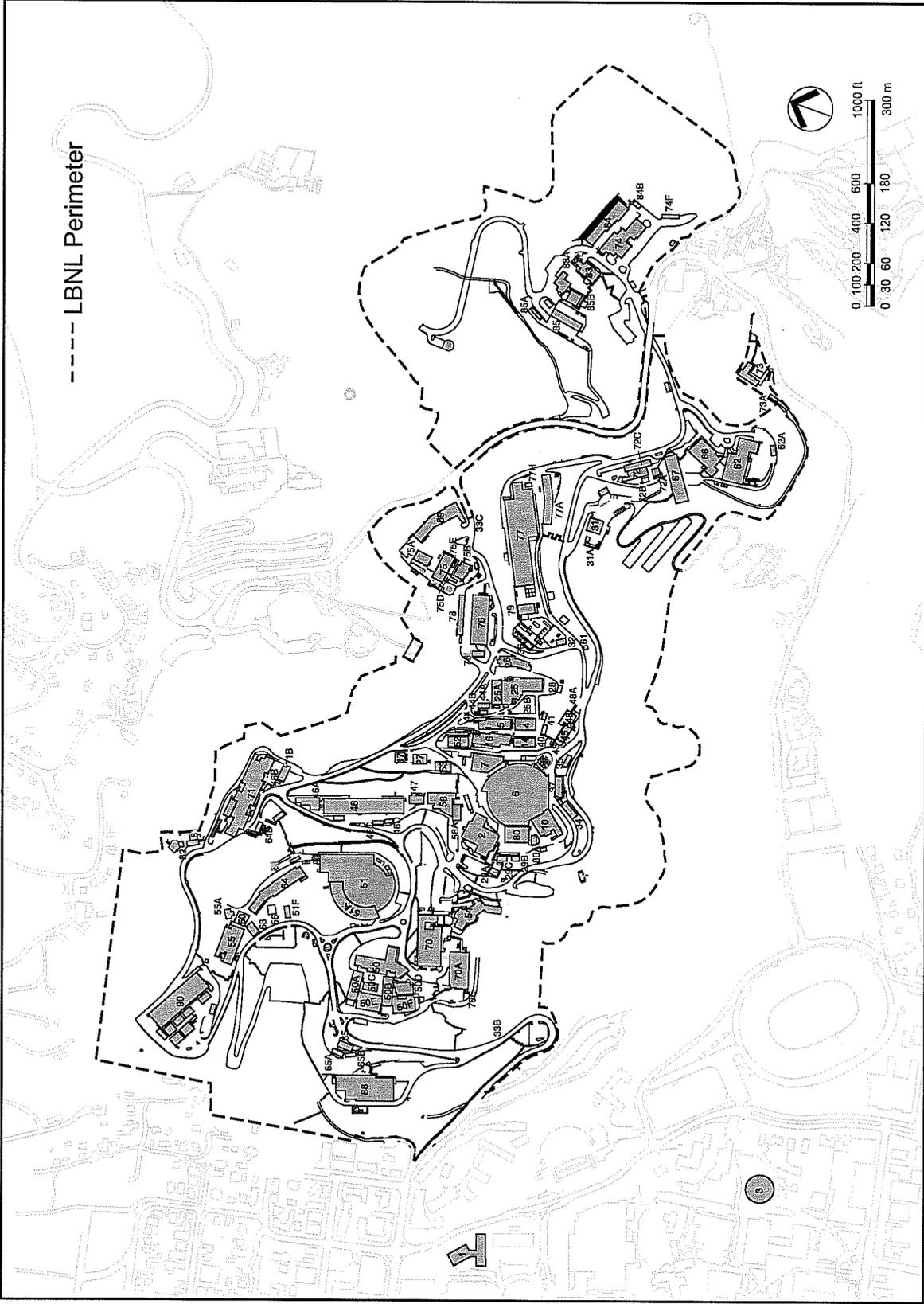
8711 Engineering services
8712 Architectural services
8733 Noncommercial research organizations

Executive, Legislative, and General

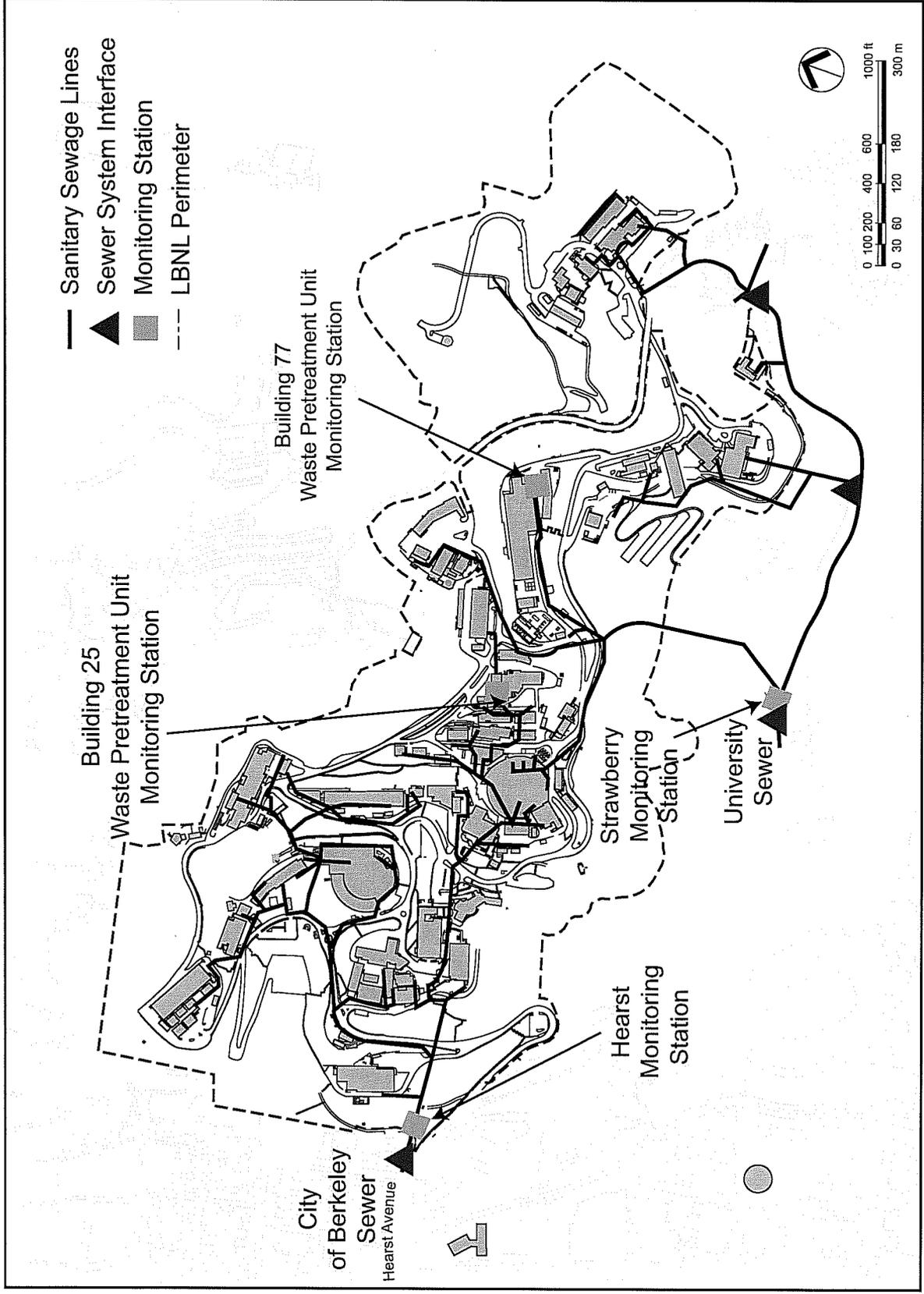
9199 General government, nec

Environmental Quality, and Housing

9511 Air, water, and solid waste management



Lawrence Berkeley National Laboratory



Sanitary Sewer System

Permit # 06600791

Process Description

Attachment B

Waste Transporters

and

Other Wastes Transported Off-site

EPA ID	Transporter	Street	City	State	Zip	Telephone	# of Manifests
CA4890008986	LAWRENCE BERKELEY NATIONAL LABORATORY	One Cyclotron Road	Berkeley	CA	94720	(510)486-5877	5
CAD003963592	ECS REFINING	705 Reed Street	Santa Clara	CA	95050	(408)988-4386	8
CAD004778742	STURGEON AND SON, INC.	3511 Gilmore Ave.	Bakersfield	CA	93308	(661)322-4408	14
CAD066151648	THOMAS GRAY & ASSOCIATES, INC.	205 West Barkley Ave.	Orange	CA	92868	(714)997-8090	1
MOD095038998	TRI-STATE MOTOR TRANSIT COMPANY	8141 E. 7th St. / PO Box 113	Joplin	MO	64802	(800)234-8768	5
NJD080631369	VEOLIA ES TECHNICAL SOLUTIONS, LLC	1125 Hensley Street	Richmond	CA	94801	(973)347-7111	33

Lawrence Berkeley Laboratory
 Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSDF EPA ID	Total Pounds 2006	Average Pounds per month
Spent alkaline cyanide solution from metal stripping and surface treatment destined for incineration	711	D003	CAT080014079	90	8
Spent alkaline solution from metal cleaning destined for neutralization	121, 122	D002	CAT080014079	3470	289
Waste metal polisher slurry destined for incineration	135	D004, D007, D011	CAT080014079	35	3
Non-RCRA rinse water with dilute phosphoric acid from metal cleaning destined for incineration	135	n/a	CAT080014079	90	8
Spent non-RCRA aqueous metal cleaning solution from research support destined for incineration	223	n/a	CAT080014079	7289	607
Waste non-RCRA nickel acetate solution from metal cleaning destined for waterwaer treatment	726	n/a	CAT080014079	1875	156
				1875	156

Lawrence Berkeley Laboratory Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSDF EPA ID	Total Pounds 2006	Average Pounds per month
Waste non-RCRA alkaline solution from facilities support operations destined for incineration	134	n/a	CAT080014079	376	31
<hr/>					
Waste 10-20% chromic acid aqueous solution from metal surface treatment destined for neutralization and chromium reduction	723, 792	D002, D007	CAT080014079	334	28
<hr/>					
Discarded aerosol paints, dyes, sealants from research and support activities destined for incineration	331	D001, D018, D035, D039	CAT080014079	64	5
<hr/>					
Non-RCRA water and oil mixtures from facilities support destined for incineration	223	n/a	CAT080014079	335	28
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Wastewater with metallic mercury from facilities support destined for mercury recovery	725	D009	CAT080014079	280	23
<hr/>					
Soil and grit blast media with lead and cadmium from site support operations destined for macroencapsulation and land disposal	181	D006, D008	CAT080014079	4450	371
<hr/>					
Waste liquid mercury and devices containing mercury from laboratory research destined for mercury recovery	725	D009	CAT080014079	167.7	14
<hr/>					
				167.7	14

Lawrence Berkeley Laboratory
Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSDF EPA ID	Total Pounds 2006	Average Pounds per month
10% methylaluminum in toluene discarded reagent from laboratory research destined for incineration	331	D001, D003	CAT080014079	8	1
Waste non-RCRA oil from laboratory research and support operations destined for fuel blending	221, 331 741	n/a	CAT080014079	8504	484
Lead bricks from facilities clean-up destined for macroencapsulation and land disposal	181	D008	CAT080014079	725	60
Waste non-RCRA latex paint from facilities maintenance destined for incineration	331	n/a	CAT080014079	290	24
Lab packs of PCB-containing material destined for incineration	221, 261 731	n/a	CAT080014079	94.4	8
Spent chemical reaction device containing sodium dispersion in oil from laboratory research destined for incineration	331	D001, D003	CAT080014079	94.4	8
Electropolish acidic rinsewater with metals from metal etching destined for wastewater treatment	792	D002, D006, D007, D008	CAT080014079	9.5	1
				755	63
				755	63

Lawrence Berkeley Laboratory
 Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2006	Average Pounds per month
Mixed flammable solvents from laboratory research destined for fuel blending	212, 343 551	D001, D006, D022, D038, F003 F005, U004, U056, U057, U239	CAT080014079	779.6	65
Mixed ignitable and halogenated solvents from laboratory research destined for incineration	551, 741	D001, D022, F002, F003, F005	CAT080014079	108	9
Spent solvent/water mixtures from laboratory research destined for fuel blending	133, 212 551	D001, D022, D038, D040, F002 F003, F005	CAT080014079	200.8	17
Acid solutions with metals from metal cleaning destined for neutralization and wastewater treatment	792	D002, D006, D007, D008	CAT080014079	994	83
Spent corrosive acids with metals from metal cleaning destined for neutralization	792	D002, D006, D007, D008, D009	CAT080014079	3764	314
Spent non-corrosive rinse waters with metals from metal cleaning destined for wastewater treatment	135	D006, D007, D008, D011	CAT080014079	2409	201
Water with elemental mercury from facility decontamination destined for metals recovery	135, 725	D009	CAT080014079	72	6

Lawrence Berkeley Laboratory
Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSDF EPA ID	Total Pounds 2006	Average Pounds per month
Unused barium chloride salts from inventory cleanup destined for stabilization and land disposal	141	D005	CAT080014079	446	37
Waste diesel fuel/water/solids from discarding out-of-date fuel destined for fuel blending	331	D001	CAT080014079	1593	133
Sediments and solids with mercury from facility cleanup destined for metal recovery	181, 352	D009	CAT080014079	365	30
Broken fluorescent light tubes with mercury from facilities destined for stabilization and land disposal	181	D009	CAT080014079	56.6	5
Lab packs containing RCRA acutely hazardous wastes from laboratory research destined for incineration	141, 331 741	LABP, P105, P030, P106, P098 P115, P022, P041, P003, P014, P023, P075, P194, P101, P028	CAT080014079	557.7	46
Lab packs of inorganic mercury and mercury compounds from laboratory research destined for metal recovery	141, 551 725	D009	CAT080014079	121.7	10
Lab packs of research laboratory wastes destined for incineration	121, 141 331, 551 741, 791, 792	LABP	CAT080014079	19,057	1588
				557.7	46
				121.7	10
				121.7	10
				19,057	1588
				19,057	1588

Lawrence Berkeley Laboratory Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSDF EPA ID	Total Pounds 2006	Average Pounds per month
Spent paint thinner or petroleum distillates from laboratory research and support operations destined for fuel blending	331	D001	CAT080014079	510	43
<hr/>					
Waste corrosive acids from metal etching destined for stabilization	792	D002, D007, D008, D010	CAT080014079	2115	176
<hr/>					
Unused chromium trioxide/silica gel mixture from laboratory research destined for incineration	141	D001, D007	CAT080014079	85	7
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Asbestos-containing waste from demolition and asbestos abatement destined for land disposal	151	n/a	CAT080014079 CAD981382732	3167.5 5000	264 417
<hr/>					
				8167.5	681
<hr/>					
Lead-acid gel-cell batteries from maintenance battery replacement destined for metal recovery	141, 181	D008	CAT080014079	2672.7	223
<hr/>					
				2672.7	223
<hr/>					
Metal debris with traces of mercury contamination from laboratory research destined for mercury recovery	181	D009	CAT080014079	170	14
<hr/>					
				170	14

Lawrence Berkeley Laboratory
Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2006	Average Pounds per month
Empty drums from product use destined for land disposal	512	n/a	CAT080014079	342	29
				342	29
Spent water filters from labora- tory research and support operations destined for land disposal	352	n/a	CAT080014079	110	9
				110	9
Spent non-RCRA aqueous solutions from metal cleaning destined for chemical precipitation	135	n/a	CAT080014079	4447	371
				4447	371
Debris with mercury from broken thermometers and spill cleanup destined for mercury recovery	352, 725	D004, D006, D009, D010	CAT080014079	2279	190
				2279	190
Non-RCRA debris from plant operations destined for incineration	141, 181	n/a	CAT080014079	4220	352
				4220	352
Small PCB-containing capacitors and debris from plant maintenance destined for incineration	731	n/a	TXD0000838896	17.4	1
				17.4	1
Non-PCB small capacitors from facilities renovation destined for metals recovery	221, 223	n/a	CAT080014079	72.5	6
				72.5	6
Waste photodeveloper from lab- oratory research destined for incineration	541	n/a	CAT080014079	555	46
				555	46

Lawrence Berkeley Laboratory
Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2006	Average Pounds per month
Photofixer and developer from laboratory research destined for incineration	541	D011	CAT080014079	1730	144
Spent radiometric scintillation cocktails in vials from laboratory research destined for incineration	343	n/a	CAT080014079	1362	114
Waste aerosol cans of flammable products destined for incineration	331, 343	D001, D007, D035	CAT080014079	72.3	6
Waste corrosive acid solutions from laboratory research destined for neutralization	792	D002, D006, D007, D008, D011	CAT080014079	2441	203
Non-flammable aerosol cans from product use destined for incineration	331	D039	CAT080014079	24.2	2
Spent filters from wire-EDM metal machining destined for land disposal	181, 352	D007	CAT080014079	309	26
Used ethylene glycol antifreeze from equipment maintenance destined for incineration	343	n/a	CAT080014079	410	34
Metal-contaminated debris from voluntary cleanup destined for macroencapsulation and land disposal	181, 352	D004, D006, D008, D010, D011	CAT080014079	706	59

Lawrence Berkeley Laboratory Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2006	Average Pounds per month
RCRA organic debris from laboratory research destined for incineration	181, 331	D004, D006, D007, D008, D010	CAT080014079	928	77
Wastewater treatment filter cake from metal plating destined for incineration	171	F006	CAT080014079	122	10
Waste non-RCRA pressure-treated lumber from facilities maintenance destined for land disposal	352	n/a	CAT000646117	5000	417
Concrete blocks and debris contaminated with up to 3200 ppm PCBs from building demolition destined for land disposal	751	n/a	CAT000646117	21120	1760
Lab packs of radioactive wastes from laboratory research destined for incineration	331, 551	D004, D006, D007, D008, D009	TND982109142	11.5	1
Radioactive lead and lead-contaminated debris from Bevatron decommissioning destined for macroencapsulation and land disposal	181	D008, D011	UTD982598898	450	38
Lab packs of radioactive chemicals from laboratory research destined for incineration	141, 331	D002, U103, U138	TND982109142	14.3	1
Radioactive lead-contaminated electrical devices from laboratory research destined for macroencapsulation and land disposal	181	D008	UTD982598898	120	10

Lawrence Berkeley Laboratory
 Liquid/Sludge Hazardous Waste Shipped - 2006

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2006	Average Pounds per month
Radioactive lead and lead-contaminated debris from equipment decommissioning destined for macroencapsulation	181	D008, D009	UTD982598898	1030	86
Radioactive flammable solid lab packs from laboratory research destined for incineration	141, 181 331, 352	D001, D003	TNR000005397	32	3
Radioactive ignitable liquids lab packs from laboratory research destined for incineration	132, 331, 551	D001, D004, D007, D018, D022 F003, U006	TND982109142 TNR000005397	266.8 32 298.8	22 3 25
Waste corrosive acidic radioactive liquids from lab research destined for on-site neutralization	791	D002	n/a	29	2
Waste corrosive basic radioactive liquids from laboratory research destined for on-site neutralization	121	D002	n/a	0.2	0
				0.2	0



WATER BALANCE/STRENGTH SUMMARY

The information on this form describes the volume, source, and strength of wastewater discharged to the community sewer. Instructions are on the back of this form.

Permit Number
06600791

WATER USE AND WASTEWATER DISCHARGE BALANCE

Units expressed in: gallons per calendar day or gallons per working day (Number of working days per year _____)

Water Use	Source			Wastewater Discharge to each Side Sewer					Water Diverted	Code ²
	EBMUD	Other	Code ¹	No. 1	No. 2	No.	No.	No.		
Sanitary Processes	35,899			11,488	24,411					
Product	135			50	85					
Boiler	1,370								1,370	B
Cooling	58,732			7,160	15,218				36,354	B
Washing	158				158					
Irrigation	1,837								1,837	C
UCB	104,152			15,827	33,633				54,692	C
Sub-total	202,283			34,525	73,505				94,253	
Total	All Sources 202,283			All Side Sewers <u>108,030</u>			All Side Sewers + Water Diverted 202,283			
Maximum Daily Discharge (gallons)										

METERED WATER

Water Meter Number	Code ³	Percent Discharge to each Side Sewer					Total % Discharge
70027448 *	E	100					
0004710 *	E						
* Each supply meter supplies the entire system ensuring redundancy in the event of failure. Hence, percent discharge to each side sewer for each supply meter can not be determined.							

¹Other / Code: Compute the average gallon per day water use from non-EBMUD sources and enter the value in the Other "Sub-total" box. Do not include sources that discharge only to the stormdrain. Allocate the subtotal value to each type of water use. Enter the code(s) that identifies the source water:

A= Well Water / Groundwater B= Stormwater C= Reclaimed Water D= Other (describe)

²Water Diverted/Code: Enter the diverted volume for each type of water use. Enter the code(s) that identifies the diversion:

A= Product B= Evaporation C= Irrigation D= Creek/Bay E= Rail, Truck, Vessel F= Other (describe)

³Metered Water Code(s): E= EBMUD Meter P= Private Meter



WATER BALANCE/STRENGTH SUMMARY

WASTEWATER STRENGTH ESTIMATES		Wastewater Discharge to each Side Sewer				
		No.1	No. 2	No.	No.	No.
Total Suspended Solids mg/L (TSS)	Average	190	365			
	Maximum	250	630			
Filtered Chemical Oxygen Demand mg/L (CODF)	Average	105	36			
	Maximum	180	44			

DISCHARGE FREQUENCY

Days of Week	7	7			
Time of Day (Start & Stop Time)	24 hrs.	24 hrs.			
Volume, if Batch Discharge	---	---			

SIDE SEWER LOCATION

No. 1	Hearst Sewer, Blackberry Canyon off Cyclotron Road
No. 2	Strawberry Sewer, Strawberry Canyon off Centennial Drive.
No.	
No.	
No.	

STORMWATER AREA

Total square-foot area exposed to stormwater that drains to the sanitary sewer: _____ sq. ft.

INSTRUCTIONS FOR COMPLETING WATER BALANCE/STRENGTH SUMMARY- PAGE 1 OF 2

(Attach an additional page if more space is required.)

Applicant Business Name: Enter the complete business name, including site-specific identification.

Permit Number: The District provides a permit number to new applicants. Current permit holders, enter existing permit number.

Water Use And Wastewater Discharge Balance: This section shows the facility's water use, wastewater discharge, and water diverted from the community sewer. The Water Use must balance with the Total Wastewater Discharge to all Side Sewers and Water Diverted (All Sources = All Side Sewers + Water Diverted). *The calculations used to arrive at the values submitted in the Water Balance Strength Summary must be included with the application.*

Units

- Check one of the boxes. The selected units must be used to express consumption and discharge rates. If using gallons per working day, provide the number of working days per year.

Source

- Compute the average gallon per day EBMUD water use and enter the value in the EBMUD "Subtotal" box. The "EBMUD Bill History File Inquiry", provided by the District, may be used to calculate the average daily use **if** projected water use is expected to be similar to the prior year. If not, estimate water use using best available data.

Example

		ACCT	1234567	EBMUD BILL HISTORY FILE INQUIRY					
CONS - Consumption in Hundred Cubic Feet (Ccf)		PER END	DAYS	CONS	GPD	WATER	SEWAGE	AGENCY	TOTAL CHGES
		05/23/01	58	500	6448	XXXX	XXXX	XXXX	XXXX
		03/26/01	62	300	3619	XXXX	XXXX	XXXX	XXXX
		01/23/01	63	100	1187	XXXX	XXXX	XXXX	XXXX
		11/21/00	60	400	4987	XXXX	XXXX	XXXX	XXXX
		09/22/00	59	800		XXXX	XXXX	XXXX	XXXX
		07/25/00	63	1000		XXXX	XXXX	XXXX	XXXX
			365	3100					

$3100 \text{ Ccf} \times \frac{748 \text{ gal}}{1 \text{ Ccf}} = \frac{6353 \text{ gal}}{\text{day}}$
 365 days

- Allocate the subtotal value to each type of water use. Sanitary water use may be determined using the following data from the Uniform Plumbing Code, 1997:

Field Service Employees: 5 gallons per employee per day Production Employees: 25 gallons per employee per day
Office Employees: 20 gallons per employee per day Production Employees with showers: 35 gallons per employee per day

Stormwater Discharge Calculation Example (Assume 18 inches of average annual rainfall.)

Sq ft area exposed to rainfall x 1.5 ft average annual rainfall x 7.48 gal/cubic foot = ___ gal ÷ 365 days = ___ gal/day

Note: Some water use may be hard to quantify. In this case, try subtracting the known rates from the "All Sources" total. The difference may be used to estimate the hard to quantify value.

Wastewater Discharge to each Side Sewer

- Enter the side sewer number at the top of each column. The number must correlate with the side sewer number shown on the Facility Layout.
- Enter the wastewater discharge rate for each type of water use. Enter the subtotal for each side sewer.
- Enter the water diverted and the subtotal.
- Enter maximum daily discharge rate for each side sewer.

Metered Water

- Enter meter number(s) for source water.
- Enter the percent of metered water that is discharged to each side sewer.
- For every meter, add the percent discharge for each side sewer and enter the total.

Summary Sheet						
2006 Water Use and Wastewater Discharge Balance Estimate						
				Discharge to Sewer Side:		
		Source		No1	No2	Water
From Table:	Water Use	EBMUD	Other	Hearst	Strawberry	Diverted
2	Sanitary	35,899		11,488	24,411	
3	Processes	135		50	85	
	Product					
4	Boiler	1,370				1,370
5	Cooling	58,732		7,160	15,218	36,354
6	Washing	158			158	
7	Irrigation	1,837			0	1,837
	UCB	104,152		15,827	33,633	54,692
	S/T	202,283		34,525	73,505	94,253
Total All Sources		202,283	All Sewers=	108,030	All Sewers + Diverted=	202,283
Estimate based upon weekly wastewater flows, UC Berkeley water bills (UCB + LBNL), and previous 2002 data prepared by Toni Reeves, LBNL Facilities Division.						

Table 1 EBMUD Accounts 06600801 & 06600791

Note: These two accounts serve both LBNL and UCB Campus Space

Account #	Days	Consumption	Gallons	GPD
6600801				
4/11/2007	29	1,347	1007556	34,743
3/13/2007	33	1,255	938740	28,447
2/8/2007	30	1,059	792132	26,404
1/9/2007	33	1,218	911064	27,608
12/7/2006	31	1,369	1024012	33,033
11/6/2006	28	1,777	1329196	47,471
10/9/2006	28	1,558	1165384	41,621
9/11/2006	33	1,950	1458600	44,200
8/9/2006	29	2,978	2227544	76,812
7/11/2006	32	2,552	1908896	59,653
6/9/2006	30	3,422	2559656	85,322
5/10/2006	27	2,251	1683748	62,361
4/13/2006	30	2,393	1789964	59,665
3/14/2006	63	5,520	4128960	65,539
1/10/2006	33	2,536	1896928	57,483

Account #	Days	Consumption	Gallons	GPD
6600791				
4/11/2007	29	9,425	7049900	243,100
3/13/2007	33	9,537	7133676	216,172
2/8/2007	30	7,204	5388592	179,620
1/9/2007	33	2,101	1571548	47,623
12/7/2006	31	3,448	2579104	83,197
11/6/2006	28	2,811	2102628	75,094
10/9/2006	28	2,472	1849056	66,038
9/11/2006	33	5,538	4142424	125,528
8/9/2006	29	5,447	4074356	140,495
7/11/2006	32	6,257	4680236	146,257
6/9/2006	30	4,299	3215652	107,188
5/10/2006	27	1,770	1323960	49,036
4/13/2006	30	653	488444	16,281
3/14/2006	33	1,178	881144	26,701
2/9/2006	30	516	385968	12,866

Table 2 Sanitary - Building Restroom Water Use						
Bldg		Total Gallons	GPD			
2		308,656	1,342			
4		54,151	235			
5		43,890	191			
6		305,760	1,329			
7		84,118	366			
10		37,577	163			
14		39,428	171			
16		13,860	60			
25		77,393	336			
26		59,633	259			
27		3,576	16			
29		109,259	475			
31		25,948	113			
44		15,205	66			
46		387,987	1,687			
47		64,451	280			
48		37,348	162			
50 COMPLEX		1,610,830	7,004			
51		100,351	436			
52		30,663	133			
53		25,046	109			
54		32,000	139			
55		142,825	621			
55A		10,371	45			
58		35,000	152			
62		163,821	712			
64		86,910	378			
65		80,000	348			
66		186,000	809			
69		161,630	703			
70		359,958	1,565			
70A		364,602	1,585			
71		149,027	648			
71 TRAIL		81,444	354			
72		28,211	123			
72C		1,693	7			
73		11,416	50			
74		425,984	1,852			
75		31,500	137			
75B		28,638	125			
76		334,311	1,454			
77		135,072	587			
77A		22,451	98			
79		5,800	25			
80		127,565	555			
83		64,538	281			
84		21,955	95			
85&85B		53,000	230			
88		476,859	2,073			
90		1,009,214	4,388			
90 TRAIL		189,896	826			
			35,899			

Table 3 Processes

Bldg	Total Gallons	GPD
77	39909	111
25	8819	24
		135

Table 4 Boiler Makeup

Bldg	GPD
2	87
4	16
6	87
10	63
25	16
25A	16
47	16
50	87
50A	87
50B	87
51	63
53	16
54	71
55	16
62	87
64	16
66	87
70	87
71	63
73	16
75	16
76	16
77	16
80	63
83	2
88	87
90	87
	1,370

Table 5 Cooling

A) Cooling Tower Water Makeup

Bldg	Total Gallons	GPD
34	200034	548
37	9115054	24,973
50A	1070643	2,933
50A	97527	267
62	691026	1,893
70A	648227	1,776
71	582962	1,597
74	40925	112
77	2528	7
84	294131	806
88	1536158	4,209
		39,121

B) Low Conductivity and Treated Water Makeup

Bldg	Total Gallons	GPD
25	5,222,012	14,307
37	278,927	764
37	166	0
37	902	2
62	6,012	16
66	14,358	39
70a	76,547	210
74	204	1
83	5,443	15
84	21,834	60
88	17,913	49
		15,464

C) Makeup at Boilers and How Water Heaters

Bldg	Total Gallons	GPD
62	14,794	41
74	1,707	5
		45

D) Cooling Tower Blowdown

Bldg	Total Gallons	GPD
37	352,846	967
50A	109,733	301
50B	3,424	9
62	126,220	346
70A	0	0
88	174,446	478
		2,100

E) Cooling Tower Backwash				
Bldg		Total Gallons	GPD	
34		176,433	483	
37		41,058	112	
50B		59,927	164	
62		1,250	3	
70A		181,447	497	
74		28,230	77	
			1,338	
F) Single Pass Cooling				
Bldg			GPD	
72B		242,013	663	
Subtotal Table 5 Cooling			58,732	

Table 6 Washing

	Total Gallons	GPD
Bldg 76	57670	158

Table 7 LBNL Irrigation Water

Bldg/Area	Total Gallons	GPD
25 Shrubs	25632	70
25 Lawn	91135	250
54/70 lawn	34176	94
65 Shrubs	17088	47
70 Shrubs	21360	59
74 Shrubs	8544	23
75 Shrubs	8544	23
83 Grass	76895	211
Main Gate	8544	23
84 Shrubs	42719	117
85 Lawn	61516	169
85 Shrubs	76895	211
29 Grass	197459	541
Total	670505	1837

Table 8 2006 Weekly Wastewater Flow Totals

Date	Hearst Gallons	Strawberry Gallons
1/2/2006	605560	0
1/9/2006	287780	1301294
collection total	1139870	1801493
1/17/2006	241760	518738
1/23/2006	223120	381682
2/1/2006	334190	515137
2/6/2006	163220	305379
collection total	962290	1720936
2/13/2006	261520	413054
2/21/2006	213720	407967
2/27/2006	149850	321912
3/6/2006	276610	497443
collection total	901700	1640376
3/14/2006	325258	623260
3/20/2006	355100	363620
3/28/2006	319760	521260
4/4/2006	312810	473540
collection total	1312928	1981680
4/10/2006	228820	496246
4/17/2006	285390	539499
4/24/2006	247010	354452
collection total	761220	1390197
5/1/2006	250625	377943
5/8/2006	267264	387573
5/24/2006	372590	755886
collection total	890479	1521402

Table 8 2006 Weekly Wastewater Flow Totals (continued)

Date	Hearst Gallons	Strawberry Gallons
5/29/2006	156707	339953
6/5/2006	268960	638580
6/12/2006	157770	427131
6/19/2009	194550	607501
collection total	777987	2013165
6/27/2006	476710	432807
7/11/2006	425820	704025
7/17/2006	220590	342413
collection total	1123120	1479245
7/25/2006	370170	651716
8/3/2006	278620	450472
8/7/2006	110580	225928
8/14/2006	348410	529603
collection total	1107780	1857719
8/23/2006	344580	650473
8/28/2006	153860	354174
9/6/2006	277090	580562
9/11/2006	161590	248381
collection total	937120	1833590
9/18/2006	208500	561463
9/25/2006	195650	761552
10/2/2006	194700	577200
10/9/2006	206640	623450
collection total	805490	2523665
10/19/2006	300790	981881
10/25/2006	148920	539498
11/2/2006	206270	729567
11/6/2006	95000	337609
collection total	750980	2588555
11/13/2006	159610	524517
11/20/2006	180980	542264
11/27/2006	139750	530948
12/4/2006	167150	509774
collection total	647490	2107503
12/14/2006	309150	1052010
12/19/2006	125340	519750
1/3/2007	505060	1205750
collection total	939550	2777510
2006 Totals	12,811,474	26,736,837
Combine	39,548,311	GALLONS
2006	108,030	GPD

**Tables prepared by Steve Blair
Facilities Division, Engineering & Inspection Group**



WASTEWATER DISCHARGE PERMIT

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GENERAL CONDITIONS

- I. Lawrence Berkeley National Laboratory 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 such as:

- Improved operating practices,
- Material substitution,
- Product substitution, and
- Technology and process modification.

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 Buildings 25 and 77. The groundwater discharge is regulated under Permit No. 5034789 1. The metal finishing operations at Buildings 25 and 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 July 31, 2007.
- 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.



WASTEWATER DISCHARGE PERMIT

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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; Trichloroflouromethane; 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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WASTEWATER DISCHARGE PERMIT

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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 one representative operating day during the week of:

Hearst SS#1 & Strawberry SS#2			
Self Monitoring Schedule 2007 - 2012			
	pH, TICH, TSS, CODF	Metals	Report Due Date
Year 1	9/24/2007		11/2/2007
	3/17/2008	3/17/2008	4/25/2008
Year 2	9/15/2008		10/24/2008
	3/23/2009	3/23/2009	5/1/2009
Year 3	9/21/2009		10/30/2009
	3/22/2010	3/22/2010	4/30/2010
Year 4	9/13/2010		10/22/2010
	3/21/2011	3/21/2011	4/29/2011
Year 5	9/19/2011		10/28/2011
	3/12/2012	3/12/2012	4/20/2012
Total # sampling events	20	10	

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Parameter	Sample Type ¹	Analytical Method
pH	Grab	SM4500 H+B
TICH	Grab	EPA 624
Chemical Oxygen Demand, Filtered ² (CODF)	Composite	EPA 410.4 ³
Total Suspended Solids (TSS)	Composite	SM 2540D
Cadmium	Composite	EPA 200.7 ⁴
Chromium	Composite	EPA 200.7 ⁴
Copper	Composite	EPA 200.7 ⁴
Lead	Composite	EPA 200.7 ⁴
Nickel	Composite	EPA 200.7 ⁴
Silver	Composite	EPA 200.7 ⁴
Zinc	Composite	EPA 200.7 ⁴

¹Time composite samples shall cover a 24-hour period. Grab samples shall be taken during the 24-hour period.

²The sample shall be stored in either a polyethylene or glass container. Each aliquot in an automated sampler shall be maintained at 4°C until compositing and preserved with H₂SO₄ to pH<2. The maximum holding time is 28 days.

³Filter sample using a glass fiber filter (Whatman grade 934 AH or other filters that give demonstrably equivalent results) prior to analysis.

⁴The sample shall not be filtered before processing. The analysis shall be preceded by a digestion procedure as described in "Methods for Chemical Analysis of Water and Wastes, 1979 and 1983.

IV. A self-monitoring report shall be submitted to the Environmental Services Division within 30 days of sampling. 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. Descriptions should include qualitative and quantitative statements of color, clarity, as well as amount of settleable and/or floatable solids.
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 V of STC, "Signature Requirements".



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CALCULATION OF WASTEWATER DISPOSAL SERVICE CHARGES

Total Suspended Solids (TSS) = \$0.258
 Chemical Oxygen Demand-Filtered (CODF) = \$0.162
 Volume = \$0.467

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	277	0.446	203	0.327
CODF	120	0.121	65	0.066
Volume		<u>0.467</u>		<u>0.467</u>
SS rate =		\$1.034		\$0.860

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>Meter No.</u>	<u>Side sewer #1</u>		<u>Side sewer #2</u>		Total
	%	\$/Ccf	%	\$/Ccf	for meter
70027448	70%	0.724	30%	0.258	0.982
00004710	70%	0.724	30%	0.258	0.982

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</u>	<u>Meter</u>	<u>Conversion</u>		<u>Percent</u>	<u>Fixed Volume</u>	<u>Meter Rate</u>
<u>Number</u>	<u>Number</u>	<u>Units</u>	<u>Factor</u>	<u>Discharged</u>	<u>Ccf/month</u>	<u>\$/Ccf</u>
6600801	70027448	Ccf	1.0	48%	0	0.982
6600791	00004710	Ccf	1.0	48%	0	0.982



WASTEWATER DISCHARGE PERMIT

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MONITORING and TESTING CHARGES

EBMUD Inspections Per Year: 2 @ \$715.00 each \$1,430.00 /year

Analyses Per Year:

Parameter	Tests per year	Charge per test	Total Charge per year
pH	4	\$17.00	\$68.00
TSS	4	\$37.00	\$148.00
CODF	4	\$53.00	\$212.00
EPA 624	4	\$193.00	\$772.00
EPA 200.7 Metals	4	\$82.00	\$328.00

Total Monitoring and Testing Charge = \$2,958.00 / year
\$246.50 / month



WASTEWATER DISCHARGE PERMIT

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FEEES AND WASTEWATER CHARGES

The following fees and charges are due when billed by the District:

Annual Permit Fee 2007-2008:	\$2,145.00 (To be billed)
Annual Permit Fee 2008-2009:	\$2,145.00
Annual Permit Fee 2009-2010:	\$2,145.00
Annual Permit Fee 2010-2011:	\$2,145.00
Annual Permit Fee 2011-2012:	\$2,145.00
Monthly Monitoring Charge:	\$246.50

WASTEWATER DISPOSAL SERVICE CHARGE

Account Number	Meter Number	Conversion Units	Percent Discharged	Fixed Volume Ccf / month	Meter Rate \$/Ccf
6600801	70027448	Ccf 1.0	48%	0	\$0.982
6600791	00004710	Ccf 1.0	48%	0	\$0.982

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, 2007
Expiration: July 7, 2012

David R Williams 7/12/07
Director, Wastewater Department Date

**EBMUD WASTEWATER DISCHARGE PERMIT
STANDARD TERMS AND CONDITIONS**

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SECTION A. GENERAL PROVISIONS

I. Duty to Comply

The Permit Holder shall comply with all terms and conditions of the Wastewater Discharge Permit (Permit).

II. Discharge Location and Process

The Permit Holder shall discharge wastewater only from the location(s) and process(es) described in the Permit.

III. Permit Renewal

The Permit Holder shall submit an application for Permit renewal at least 60 days prior to expiration of the existing Permit.

IV. Prohibited Discharges

a. General Prohibition: No Permit Holder shall discharge wastewater into a community sewer which will result in contamination, pollution, or a nuisance.

b. Prohibited Effects: No Permit Holder shall discharge wastewater into a community sewer if it contains substances or has characteristics which, either alone or by interaction with other wastewaters, cause or threaten to cause:

- (1) Damage to District facilities.
- (2) Interference with or impairment of the operation or maintenance of District facilities.
- (3) Obstruction of flow in sewers or interceptors.
- (4) Danger to life or safety of any person.
- (5) Interference with, or overloading of, treatment or disposal processes.
- (6) Flammable or explosive conditions at or near District facilities.
- (7) Wastewater or any other by-products of the treatment process to be unsuitable for reclamation and reuse, or interfere with any processes for reclamation.
- (8) Noxious or malodorous gases or odors at or near District facilities.
- (9) Discoloration or any other condition in the quality of the District's treatment plant effluent in such a manner that receiving water quality requirements established by law cannot be met by the District.

(10) Conditions at or near District facilities which violate any statute or any rule, regulation, or ordinance of any public agency or State or Federal regulatory body, including the general prohibitions contained in Federal General Pretreatment Regulations.

(11) The presence of toxic gases, fumes, or vapors in quantities injurious to the health and safety of District personnel.

(12) Pass-through of the District's treatment plant, causing a violation of any requirement of the District's NPDES permit.

c. Prohibited Substances: No Permit Holder shall discharge the following to a community sewer:

(1) Wastewater which is not polluted and meets requirements for and is acceptable for discharge to storm sewers or to receiving waters of the State; provided that the Director may grant permission for the discharge of unpolluted wastewaters which comply with regulations of the public agency owning the community sewer.

(2) Wastewater which creates a fire or explosion hazard including, but not limited to, discharges with a closed cup flashpoint of less than 140° F (60° C) using the test methods specified in 40 CFR 261.21.

(3) Garbage, except ground garbage from residential and commercial premises where food is prepared and consumed.

d. Prohibited Locations: Except for sewer construction and maintenance by public agencies and contractors, no Permit Holder shall discharge any wastewater directly into a manhole or other opening in a community sewer system other than through side sewers approved by the public agency owning the system; provided that the Director may grant permission for such direct discharges, upon written application, at locations approved by the public agency and upon payment of applicable sewage disposal charges to the District.

e. Prohibition on Use of Dilution: Except where expressly authorized to do so by an applicable pretreatment standard or requirement, no Permit Holder shall increase the use of process water, or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate pretreatment to achieve compliance with a pretreatment standard, requirement or discharge limitation. The District may impose mass limitations on Permit Holders which are using dilution to meet applicable Pretreatment Standards or requirements, or in other cases where the imposition of mass limitations is appropriate.

f. Prohibition on Slug Discharges: No Permit Holder shall discharge any pollutant, including oxygen-demanding pollutants, at a flow rate and/or pollutant concentration which causes or threatens to cause interference with the wastewater treatment process. For the purposes of this section, any discharge at a flow rate or concentration which could

cause a violation of the prohibited discharge standards or limitations in Sections A.IV and A.V. of this document shall be deemed a slug discharge.

g. Bypass Prohibited

(1) Bypass of pretreatment equipment and/or discharge points is prohibited and the District may take enforcement action against any Permit Holder for bypass unless:

(i) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) there were no feasible alternatives to the bypass, as described in 40 CFR 403.17(d) and the Permit Holder submits the notifications required in 40 CFR 403.17(c).

(2) The District may approve an anticipated bypass, after considering its adverse effects, if the District determines that it will meet the conditions specified in part g(i) of this prohibition.

h. Discharge of Petroleum or Mineral Oil Causing Pass-through or Interference Prohibited:

Notwithstanding the provisions of Section A.V.a., no Permit Holder may discharge petroleum oil, non-biodegradable cutting oil or other products of mineral origin in any amount that causes interference or pass-through.

i. Discharge of Trucked or Hauled Wastes Prohibited: No Permit Holder shall discharge any trucked or otherwise hauled wastes to the community sewer or to any District facilities unless a permit has been issued by the District.

V. Limitations on Discharges

a. Wastewater Strength Limits: No Permit Holder shall discharge wastewater from a side sewer into a community sewer if the strength of the wastewater exceeds the following:

Arsenic	2	mg/L
Cadmium	1	mg/L
Chlorinated Hydrocarbons (total identifiable)	0.5	mg/L
Chromium (total)	2	mg/L
Copper	5	mg/L
Cyanide	5	mg/L
Iron	100	mg/L
Lead	2	mg/L
Mercury	0.05	mg/L
Nickel	5	mg/L
Oil and Grease	100	mg/L
pH	not less than 5.5	S.U.
Phenolic compounds	100	mg/L
Silver	1	mg/L
Temperature	150 ⁽¹⁾	°F
Zinc	5	mg/L

⁽¹⁾ 150°F (65.5°C), or any thermal discharge which as a result of temperature and/or volume causes the influent of the wastewater treatment plant to exceed 104°F (40°C)

b. Additional Wastewater Strength Limits: Wastewater strength limits for constituents not listed in Section A.V.a. may be established in a wastewater discharge permit based on available treatment technology, existing wastewater conditions in the District's facilities or other factors as determined by the Director. The Director may also establish wastewater strength limits on the wastewater discharge permits at locations within a premises whenever non-process water may dilute the wastewater discharging from side sewers.

c. Quantity and Rate of Flow Limits: No Permit Holder shall discharge wastewater into a community sewer in quantities or at rates of flow which may have an adverse or harmful effect on or overload District facilities or cause excessive or additional District treatment costs. The Director may establish mass discharge limits in wastewater discharge permits to control the quantity and rate of flow of wastewater discharges.

d. Radioactive Limits: No Permit Holder shall discharge or cause to be discharged any radioactive wastewater into a community sewer except when the Permit Holder 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.

e. Deny or Condition New or Increased Contributions: The Director may deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the District's wastewater treatment facility by Permit Holders where such contributions do not meet applicable Pretreatment Standards and Requirements or where such contributions would cause the District to violate its NPDES permit.

VI. Disposal of Hazardous Waste

The Permit Holder shall handle and dispose of hazardous waste in accordance with all local, state, and federal laws and regulations.

VII. Closure Plan

The District may require a Permit Holder who intends to close or cease a regulated process to provide a written Closure Plan. The plan shall include the following four items:

- a. date of proposed work or production stoppage
- b. date of proposed final closure (after cleaning and demobilizing activities are complete)
- c. description of cleaning activities, and
- d. description of disposal of inventoried process material and waste

VIII. Availability of Permit

The Permit Holder shall maintain a copy of the current Permit at the permitted site and make the Permit available to both facility and District staff at all times.

IX. Payment of Permit Fees and Charges

The Permit Holder shall pay all Permit fees, monitoring and testing charges, and wastewater treatment charges.

X. Continuation of Expired Permits

An expired Permit will continue to be effective and enforceable until the Permit is reissued if:

- a. The Permit Holder has submitted a complete permit application at least 60 days prior to the expiration date of the Permit Holder's existing Permit.
- b. The delay in reissuing the expired Permit is not due to any act or failure to act on the part of the Permit Holder.

XI. Permit Termination

The District may terminate the Permit for violation of the Permit terms and conditions or for violation of the provisions of EBMUD Ordinance No. 311A-03, unless waived by the Permit.

XII. Transfer of Permit Prohibition

The Permit Holder shall not assign or transfer the Permit.

XIII. Severability

If any provision of the Permit, EBMUD Ordinance No. 311A-03, or the application thereof to any person or circumstance, is held invalid, the remainder of the Permit or EBMUD Ordinance No. 311A-03, or the application of such provision to other persons or circumstances, shall not be affected thereby.

XIV. Property Rights

The issuance of the Permit does not convey to the Permit Holder any property rights of any sort or any exclusive privileges.

SECTION B. REPORTING AND RECORD KEEPING

I. Spill or Slug Discharge Notification

Immediately upon discovering any spill or slug discharge to the sanitary sewer, the Permit Holder shall notify EBMUD Environmental Services Division at (510) 287-1651 during business hours or (510) 835-3000 during non-business hours.

The Permit Holder shall submit to the District within five days of the occurrence a formal written notification describing:

- a. the circumstances of discharge
- b. what was discharged
- c. volume of discharge
- d. duration of discharge including beginning and end times and dates
- e. corrective actions to prevent recurrence
- f. whether discharge violates the terms and conditions of the Permit

II. Twenty-Four Hour Violation Reporting

a. The Permit Holder shall notify the District within 24 hours of becoming aware of any of the following violations:

- (1) discharges prohibited by EBMUD Ordinance No. 311A-03, Title II, except where authorized by the Permit
- (2) exceedence of Categorical Pretreatment Standards
- (3) exceedence of wastewater discharge limits as established in the Permit
- (4) bypass of any part of a required pretreatment system

b. The Permit Holder shall submit a written report to the District within five days of becoming aware of a violation. The report shall include the following information:

- (1) the date and time of the violation
- (2) the cause of the violation
- (3) a description of the violation, including what was discharged
- (4) the volume of the discharge
- (5) the duration of the discharge violation including start and end times and dates
- (6) analytical results, if available, with chain of custody and other pertinent documentation
- (7) measures taken to correct the violation

(8) measures taken to prevent recurrence

c. If analytical results of a sample collected by the Permit Holder indicate a violation, the Permit Holder shall repeat the sampling and analysis, and submit the results to the District within 30 days of becoming aware of the violation, unless:

- (1) the District samples for the same parameter between the time the Permit Holder performs its initial sampling and the time when the Permit Holder receives the results of the sampling or
- (2) the District samples the permitted discharge at a frequency of at least once per month

Such notification shall not relieve the Permit Holder of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the Permit Holder of any fines, penalties, or other liability which may be imposed pursuant to EBMUD Ordinance No. 311A-03.

III. Changes in Quantity and Quality of Wastewater

The Permit Holder shall immediately report to the District any significant change to the quality or volume of the wastewater discharge or any deviation from the Permit terms and conditions.

IV. Hazardous Waste Notification

The Permit Holder shall submit to the District a written notification in accordance with 40 CFR 403.12(p)(1) and (3), unless exempted under the provisions of 40 CFR 403.12(p)(2), of any discharge, which, if otherwise disposed of, would be a hazardous waste under 40 CFR 261. Pollutants reported as part of the Self-Monitoring Reporting Requirements are not subject to this notification requirement.

V. Signature Requirement

a. All required reports, permit applications, self-monitoring reports, violation response reports, and periodic reports on continued compliance, shall be signed:

- (1) by a responsible corporate officer, if the Permit Holder submitting the reports is a corporation. For the purpose of this paragraph, a responsible corporate officer means:
 - (i) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) by a general partner or proprietor if the Permit Holder submitting the reports is a partnership or sole proprietorship, respectively;

- (3) by a duly authorized representative of the individual designated in paragraph (1) or (2) of this section if:
- (i) The authorization is made in writing by the individual designated in paragraph (1) or (2);
 - (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the industrial discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and
 - (iii) The written authorization is submitted to the District.
- (4) If an authorization under paragraph (a)(3) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of paragraph (a)(3) of this section must be submitted to the District prior to or together with any reports to be signed by an authorized representative.

b. Reports and applications must include the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

VI. Retention of Records

a. The Permit Holder shall retain all records and relevant correspondence, including but not limited to:

- (1) all records used to complete the Permit Application
- (2) all information resulting from any monitoring activities
- (3) discharge reports
- (4) self-monitoring data
- (5) pretreatment system process control logs, including calibration and maintenance records, and original strip chart recordings of continuous monitoring instrumentation

b. The Permit Holder shall make all retained records available for inspection and copying by a duly authorized representative of the District or any other governmental entity having jurisdiction.

VII. Falsifying Information

Knowingly making any false statement on any report or other document required by the Permit or knowingly rendering any monitoring device or method inaccurate, is a crime, and may result in administrative, civil and criminal enforcement action.

SECTION C. MONITORING AND SAMPLING

I. Representative Sampling

Samples and measurements taken, as required in the Permit or those submitted with the application, shall be representative of the volume and nature of the monitored discharge. The Permit may require that a sample be representative of certain, specific, discharge periods.

Detection limits shall be sufficient to determine compliance with the Permit terms and conditions.

II. Chain of Custody

a. The Permit Holder shall submit a Chain of Custody record for each sample that documents the following:

- (1) the location, the type of sample(s) (grab or composite), the date(s) and time, or span of time the sample was taken
- (2) the number of containers, and type (glass, plastic, vial, etc.)
- (3) preservation techniques (ice, refrigeration at 4°C, chemicals added, etc.)
- (4) sample collector's name, legibly written
- (5) sample ID number (to cross-reference with the sample ID number on the Laboratory results)
- (6) all persons handling the sample and the individual receiving the sample at the laboratory, including their signature, printed name, company, date and time the sample was relinquished and accepted

b. The Permit Holder shall ensure that samples transported or handled by a courier, delivery service (public or private) or shipper shall include the company or individual's name, and the method of packaging the samples, on the Chain of Custody record.

c. The Permit Holder shall show all sample analyses performed in the field on the Chain of Custody record (e.g. pH - field test).

d. The District may require resampling of the wastewater for an incomplete or incorrect Chain of Custody record.

III. Sample Preservation and Analytical Methods

Unless the Permit requires otherwise, the Permit Holder shall use sampling methods, sample preservation, and analytical methods for each parameter in accordance with applicable sections of:

- a. *EBMUD Table of Approved Test Methods*

- b. *Standard Methods of Water and Wastewater Analysis*, Edition used in the EBMUD Table of Approved Test Methods
- c. EPA 40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, latest edition

IV. Laboratory Reports

The Permit Holder shall use a laboratory certified by the California Department of Health Services for each sample analysis required by the Permit. The laboratory report for each sample shall include:

- a. the name and address of the laboratory performing the analyses
- b. sample ID number (to cross reference with the sample ID number on the Chain of Custody)
- c. the analytical result(s)
- d. the date of sampling, the date the sample(s) was received at the laboratory, and the date of analysis
- e. the Standard Method or EPA Method used for analyses
- f. the detection limit
- g. the signature and title of an authorized representative of the Laboratory, who reviewed the laboratory results

V. Additional Monitoring

If the Permit Holder monitors any pollutant at the compliance point more frequently than required by the Permit, using test methods specified in the Permit, the results of such monitoring shall be included in the subsequent self-monitoring report.

VI. Calibration and Maintenance of Equipment

The Permit Holder shall calibrate, inspect, and maintain all flow measuring, discharge sampling, monitoring, and pretreatment equipment to ensure the equipment accuracy and reliability.

VII. Flow Measurements

The Permit Holder shall use appropriate flow measurement devices and methods when required by the District. Flow measurement devices and methods are subject to approval by the District.

VIII. Tampering with Equipment

The Permit Holder shall not tamper with monitoring equipment or treatment units.

IX. Access to Facilities

The Permit Holder shall provide access to facilities by District staff in order to ascertain compliance with the Ordinance and Permit.

SECTION D. ENFORCEMENT AND PENALTIES

I. Public Notification of Permit Holders in Significant Non-Compliance

At an interval of not less than once per year, the District will publish the identities of any Permit Holder(s) which is (are) found to be in significant non-compliance of any national pretreatment standard, discharge limitation or prohibition, Permit terms and conditions, or any other requirement of these regulations. The definition of significant non-compliance shall be as specified in Section E. The publication shall occur in the newspaper having the largest daily circulation within the service area of the District.

II. Violations of Permit Terms and Conditions

The Permit Holder shall be subject to District actions for failure to comply with the Permit terms and conditions. The actions may include violation follow-up inspections and fees, issuance of Cease and Desist Orders, Administrative Civil Liability penalties, and other actions as authorized by EBMUD Ordinance No. 311A-03, Title VI.

III. Schedule of Remedial or Preventive Measures (Compliance Schedule)

When the District finds that a discharge of wastewater is taking place or threatening to take place that violates or will violate prohibitions or limits prescribed by Ordinance 311A-03, or wastewater source control requirements or the provisions of a wastewater discharge permit, the District may require the Permit Holder to submit for approval, a detailed time schedule of specific actions the Permit Holder shall take in order to correct or prevent a violation of requirements. Such schedule shall not extend the compliance date beyond applicable federal deadlines.

IV. Criminal Penalties.

- a. A Permit Holder who intentionally discharges wastewater in any manner, in violation of any order issued by the Director, which results in contamination, pollution, or a nuisance, as defined in Ordinance 311A-03, is guilty of a misdemeanor and may be subject to criminal penalties of not more than \$1,000 per day for each such violation, including, but not limited to, any violation of pretreatment standards or requirements.
- b. A Permit Holder who knowingly makes any false statement or representation in any record, report, plan, or other document filed with the District, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required by the District, shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000) or by imprisonment in the county jail for not more than six months, or by both.

V. Civil Enforcement Penalties.

- a. A Permit Holder who fails to comply with any order issued by the District, including orders related to pretreatment standards or requirements, shall be subject to a civil penalty not to exceed ten thousand dollars (\$10,000) for each day in which the discharge, violation, or refusal occurs.
- b. A Permit Holder who intentionally or negligently violates any order issued by the District for violation of rules regulating or prohibiting discharge of wastewater which causes or

threatens to cause a condition of contamination, pollution or nuisance, as defined in this article, may be liable civilly in a sum not to exceed twenty-five thousand dollars (\$25,000) for each day in which the violation occurs. The attorney of the District, upon request of the Board of Directors of the District, shall petition the Superior Court to impose, assess, and recover such sums.

VI. Payment of Fines and Violation Fees

The Permit Holder shall pay the District any fines and violation fees that are assessed.

SECTION E. DEFINITIONS

BMPs - Best Management Practices are guidelines and procedures that reduce the generation of pollutants or hazardous wastes, and prevent them from being released to the environment.

Bypass - The intentional diversion of wastestreams from any portion of a treatment facility.

Chain of Custody - A Chain-of-Custody is a legal record of each person who had possession of a sample. It is included with an analytical report.

Combined Wastestream Formula - Formula defined in 40 CFR 403.6(e)

Director - Director of the Wastewater Department of the East Bay Municipal Utility District, or his/her designated representative.

Discharge Minimization Permit - Mandatory permit that includes monitoring and reporting requirements.

District - East Bay Municipal Utility District.

Hazardous Waste - Listed and characterized wastes under Section 3001 of the Resource Conservation and Recovery Act, as described in the Code of Federal Regulations (40 CFR Part 261) or as defined in California Health and Safety Code Section 25117. VII.

Permit Holder - Any individual, partnership, firm, association, corporation, or public agency issued a Wastewater Discharge Permit.

Pollution Prevention Permits - Mandatory permits that contain best management practices to reduce or eliminate pollutants discharged to the sanitary sewer.

POTW - Publicly Owned Treatment Works, e.g., EBMUD SD-1. A treatment works owned by a state or municipality. This includes any devices, and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature.
[Ref. 40 Code of Federal Regulations, 403.3(o)]

Pretreatment Program - A program administered by a POTW that meets the criteria established in EPA 40 CFR Part 403.8, 403.9 and 403.11.

Prohibition - Prohibited wastewater discharges as defined in EPA 40 CFR Part 403.5 or EBMUD Ordinance No. 311A-03, Title I, Section 5, and Title II, Section 2.

Regional Water Quality Control Board - The California Regional Water Quality Control Board, San Francisco Bay Region, is the approval authority for the District's Pretreatment Program.

Sample - A portion of wastewater that is representative of a larger volume of wastewater being discharged. The two types of samples are:

- a. Grab - an individual sample collected in a short period of time not exceeding fifteen minutes.
- b. Composite - a sample consisting of a number of discrete aliquots combined into a single sample, representative of a period of time.

SD-1 - EBMUD Special District No. 1, a district established to provide treatment of wastewater from the following East Bay Communities: Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and the Stege Sanitary District that includes the City of El Cerrito, the Richmond Annex, and the Kensington area. [Ref. MUD Act, Division 6, Chapter 8, Section 13451].

Significant Noncompliance - A Permit Holder is in significant noncompliance with applicable pretreatment requirements if any violation meets one or more of the following criteria:

- a. Chronic violations of wastewater discharge limits, defined as those in which sixty-six percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter.
- b. Technical Review Criteria (TRC) violations, defined as those in which thirty-three percent or more of all of the measurements for each pollutant parameter taken during a six-month period are equal to or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC.
 - (1) TRC = 1.4 for BOD, TSS, fats, oil and grease
 - (2) TRC = 1.2 for all other pollutants (except pH)
- c. Any other violations of a pretreatment effluent limit (daily maximum or longer term average) that the District determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public).
- d. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of emergency authority to halt or prevent such a discharge.
- e. Failure to meet, within 90 days after the due date, a compliance schedule milestone contained in this Permit or Manager's order for starting construction, completing construction, or attaining final compliance.
- f. Failure to provide, within 30 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, self-monitoring reports, and reports on compliance with compliance schedules.
- g. Failure to accurately report noncompliance.
- h. Any other violation or group of violations, which the District determines, will adversely affect the operation or implementation of the local pretreatment program.

Slug Discharge - Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or non-customary batch discharge.

Spill - An accidental discharge of a substance that may pose an environmental, public health, or wastewater quality concern.

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.

Total Metals - The sum of the concentrations of copper, chromium, nickel, and zinc (40 CFR 413.02,e)

Total Toxic Organics (TTO) - The sum of the concentrations of specific toxic organic compounds found in the wastewater discharge at a concentration greater than 10 ug/L. Each categorical standard (40 CFR 405 - 471) lists the specific toxic organic compounds that are to be included in the summation.

Wastewater Discharge Limits - A wastewater discharge limit is the maximum concentration of a pollutant allowed to be discharged during a specific period of time. Wastewater discharge limits may be of three types: Monthly Average, 4-day Average, and Maximum.

Monthly Average - The maximum arithmetic average value of all samples taken in a calendar month.

4-day Average - The maximum arithmetic average value of four consecutive samples taken on different days.

Maximum - The maximum concentration of a pollutant allowed to be discharged at any time, as determined from the analysis of a grab or composite sample.

APPENDIX -- EBMUD Table of Approved Test Methods

The District has approved the following test methods for wastewater analysis. These methods are generally used for District and self-monitoring. Other methods not listed in this table may be required. Refer to the self-monitoring section of your wastewater discharge permit for required specific test methods. Alternative EPA methods for water and wastewater may also be acceptable.

Parameter	Preservative	Maximum Hold Time	EPA Method	STD Methods* 18 th Ed.
Arsenic (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	206.3	3114 B
			200.7	3120 B
Cadmium (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	213.2	3113 B
			200.7	3120 B
CODF, using a Whatman 934AH Glass Microfiber filter, or equivalent	Preserve with H ₂ SO ₄ to pH <2 Cool to 4°C	28 days		5220 D
Chromium (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	218.2	3113 B
			200.7	3120 B
Copper (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	220.2	3113 B
			200.7	3120 B
Cyanide (Amenable)	NaOH to pH>12 Ascorbic acid if Cl ₂ present Cool to 4°C	14 days	335.1	4500-CN G
Cyanide (Total)	NaOH to pH>12, ascorbic acid if Cl ₂ present Cool to 4°C	14 days	335.2	4500-CN B-E
Iron (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	200.7	3113 B
				3120 B
Lead (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	239.2	3113 B
			200.7	3120 B
Mercury (Total)	HNO ₃ to pH<2 Cool to 4°C	28 days	245.1	3112 B
			245.2	
Nickel (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	249.2	3113 B
			200.7	3120 B
Oil & Grease (Total) Oil & Grease (HC)	HCl or H ₂ SO ₄ to pH<2 Cool to 4°C	28 days	1664 HEM 1664 HEM-SGT	
Phenolic Compounds	H ₂ SO ₄ to pH<2 Cool to 4°C	28 days	420.1	5530-D
pH, Hydrogen Ion	None	Analyze Immediately	150.1	4500-H+ B
Silver (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	272.2	3113 B
			200.7	3120 B

Parameter	Preservative	Maximum Hold Time	EPA Method	STD Methods* 18 th Ed.
Temperature (°C)	None	Analyze immediately	170.1	2550 B
Total Suspended Solids TSS, filtered with Whatman 934 AH Glass Microfiber filter, or equivalent	Cool to 4°C	7 days	160.2	
Zinc (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	289.2 200.7	
Organochlorine Pesticides & Poly Chlorinated Biphenyls (PCBs)	Cool to 4°C	7 days until extraction; 40 days after extraction	608	6630B & C
Purgeable Organics (BTEX)	HCl to pH <2, add ascorbic acid if Cl ₂ is present. VOA vials, No headspace. Cool to 4°C	14 days	624 ¹ 8021 B 8260 B	
Semi-Volatile Organics (BNA's)	Cool to 4°C	7 days until extraction; 40 days after extraction	625	
Total Identifiable Chlorinated Hydrocarbon (Volatile Organics)	HCl to pH<2, add ascorbic acid if Cl ₂ is present. VOA vials, no headspace. Cool to 4°C	14 days	624 8260 B	

¹ EPA Method 624 table in 40CFR Part 136 does not list xylenes; however, EBMUD may accept xylenes detected by this method.

* Standard Methods for the Examination of Water and Wastewater

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