



SOURCE CONTROL DIVISION  
 PERMIT NUMBER 0660079 1

WASTEWATER DISCHARGE PERMIT  
 Terms and Conditions  
 APPLICANT INFORMATION

APPLICANT BUSINESS NAME Regents of the University of California  
 Lawrence Berkeley National Laboratory - Whole Facility

PERSON TO BE CONTACTED IN EVENT OF EMERGENCY  <u>LBNL Fire Department</u> <small>Name</small>  <u>486-7911</u> <u>486-7911</u> <small>Day Phone</small> <small>Night Phone</small>  <u>486-7014</u> <small>Fax Number</small>	ADDRESS OF PREMISES DISCHARGING WASTEWATER  <u>1 Cyclotron Road</u> <small>Street Address</small>  <u>Berkeley, CA</u> <u>94720</u> <small>City</small> <small>Zip Code</small>
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PERSON TO BE CONTACTED ABOUT THIS APPLICATION  <u>Regina Lackner</u> <small>Name</small>  <u>Environmental Specialist</u> <small>Title</small>  <u>486-7413</u> <u>486-4776</u> <small>Day Phone</small> <small>Fax Number</small>	FACILITY MAILING ADDRESS  <u>1 Cyclotron Road 75B-101</u> <small>Street Address</small>  <u>Berkeley, CA</u> <u>94720</u> <small>City</small> <small>Zip Code</small>  <u>relackner@lbl.gov</u> <small>Electronic Mail Address (E-Mail)</small>
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~~Chief Executive Officer~~ / DULY AUTHORIZED REPRESENTATIVE

<u>Regina Lackner</u> <small>Name (printed)</small>  <u>1 Cyclotron Road, 75B-101</u> <small>Street Address</small>	<u>Environmental Specialist</u> <small>Title</small>  <u>Berkeley, CA</u> <u>94720</u> <small>City</small> <small>Zip Code</small>
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CERTIFICATION

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 the 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.

Regina Lackner  
 Signature (see certification requirements on reverse)

7/7/98  
 Date



**WASTEWATER DISCHARGE PERMIT APPLICATION  
CHECKLIST AND CERTIFICATION**

**RECEIVED**  
JUL 17 2002

SOURCE CONTROL DIVISION

Permit: Lawrence Berkeley National Lab Permit No.: 0660079 1

Check the appropriate box for each page of the Wastewater Discharge Permit Application. If you are completing a page and including it in the application, initial the box in the "Page Completed" column. If you are able to certify that no change has occurred to a particular page from the previous application, initial the box in the "No Change" column. Sign and date the checklist/certification. Submit the checklist/certification with your application package.

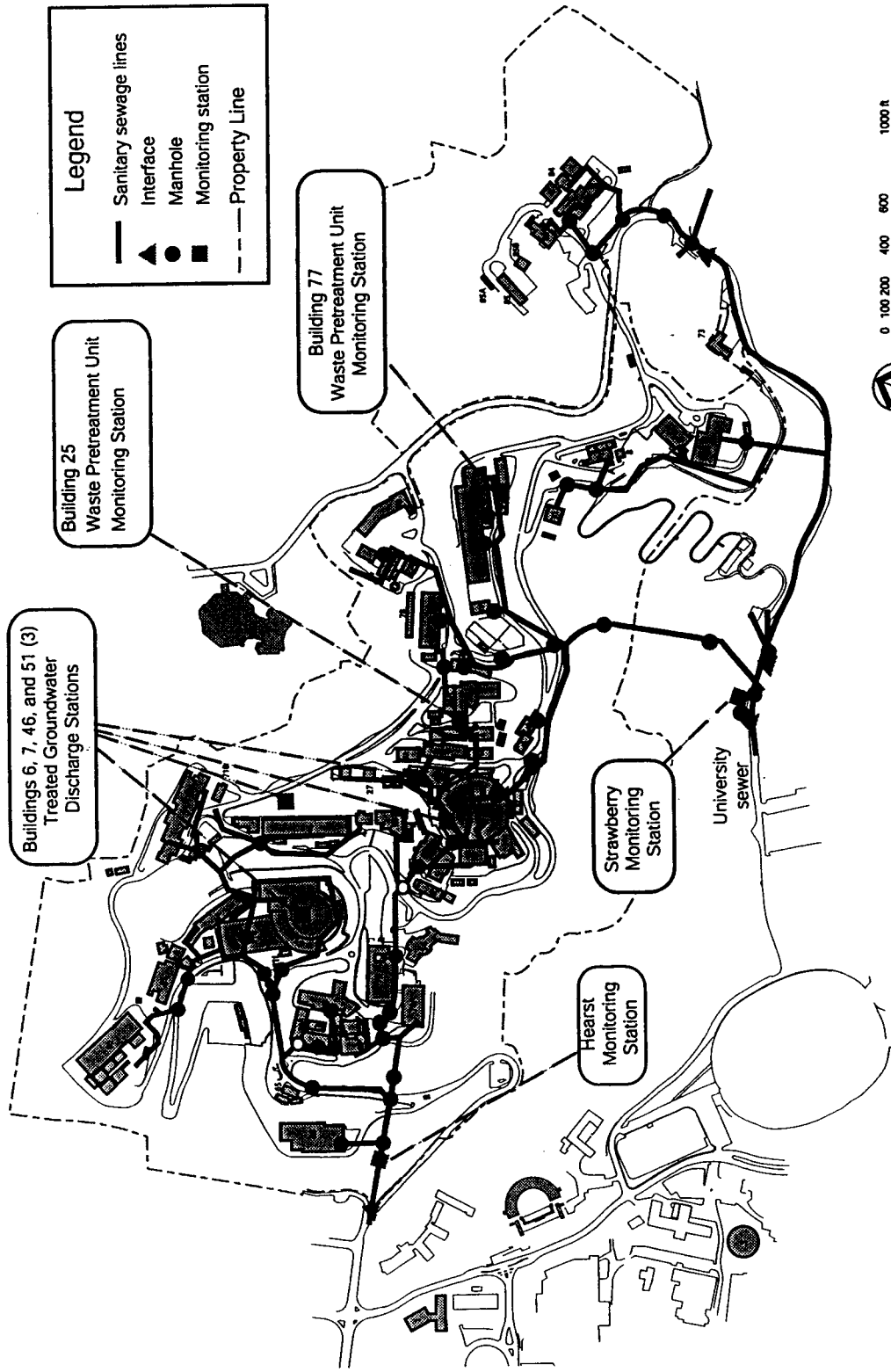
Page No.	Page Title	Initial if Page Completed	Initial if No Change
1	Applicant Information		REF
2	Process Description		REF*
3	Schematic Flow Diagram		REF
4	Building Layout Diagram		REF
5	Water Source and Use ("Water Balance")	REF	
6	Strength Summary	REF	

I certify under penalty of law that by initialing a page(s) above in the "No Change" column that the most recently submitted application page fully describes conditions at the facility at the present time and for the expected duration of the renewed permit.

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 the 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.

Regina Sackner Regulatory Compliance Engineer  
Signature/Title  
7/16/02  
Date

\* Attachment B (Waste Transporters and Other Waste Transported off-site) has been updated, as attached.



**Legend**

- Sanitary sewage lines
- ▲ Interface
- Manhole
- Monitoring station
- - - Property Line

Building 25  
Waste Pretreatment Unit  
Monitoring Station

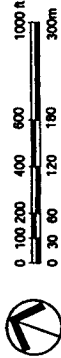
Buildings 6, 7, 46, and 51 (3)  
Treated Groundwater  
Discharge Stations

Building 77  
Waste Pretreatment Unit  
Monitoring Station

Strawberry  
Monitoring  
Station

Hearst  
Monitoring  
Station

University  
sewer



emp041

# Sanitary Sewer System



# WASTEWATER DISCHARGE PERMIT

Regents of the University of California **Terms and Conditions**  
Lawrence Berkeley National Laboratory

FACILITY NAME \_\_\_\_\_

## PROCESS DESCRIPTION

PURPOSE - The Process Description is intended to provide a description of the primary business activities and the substances which may enter into the wastewater from the business activity.		Permit Number 0660079 1
BUSINESS ACTIVITY Non-commercial research and development	Standard Industrial Classification 8733	Business Classification Code 7300

TYPE OF PRODUCT OR BRAND NAME	QUANTITIES - INDICATE UNITS	
	Past Year	Estimated This Year
	/ / to / / Mo. Year Mo. Year	/ / to / / Mo. Year Mo. Year
Research support and equipment		

Process Description <small>List all wastewater generating operations</small>	Characteristics <small>List all substances that may be discharged to the sewer</small>	Process Number <small>From Schematic</small>
See Attachment A for SIC codes	Metals, chlorinated hydro-	
indicating lab activities, site map	carbons, cyanide, phenolic	
and sewer system map	compounds, acids, oil and	
	grease	

**PRETREATMENT FACILITIES**

pretreatment: Check the type of treatment, if any, given wastewater before it is discharged to the community sewer:

None  holding tank  grease trap  oil and water separator  grinding  sedimentation  pH adjustment

biological treatment  screening  chlorination  other (describe) \_\_\_\_\_

Description: Describe the loading rates, design capacity, physical size, etc. of each pretreatment facility checked above. Identify the side sewer to which treated wastewater is discharged. sump=250 gal.

FTU 003, B76 oil/water separator, maximum 200 gal./day, discharges to SS2. Downstairs

FTU 004, B70A, 4 gpm loading rate, 27 gpm design capacity, 2 mixing tanks w/500 gal., SS1.

FTU 005, B2, 2-3 gpm estimated loading rate, 25 gpm design capacity, 2 tanks of 500 gal., plus sump tank 125 gal., discharges to SS1.

**OTHER WASTES:** List the type and volume of liquid waste and sludge removed from the premises by means other than the community sewer.

Facility EPA Generator I.D. Number 4890008986

Waste removed by Name, address, State Transporter I.D. No.	Type of Waste Example: Alkaline cleaners, Organic solvents	EPA Waste No.	State Waste No.	Quantity generated lbs. or gal. /month
See Attachment B for all waste removal data.				
Manifests are available for inspection.				

**Attachment B**

**Waste Transporters  
and  
Other Wastes Transported Off Site**

## Lawrence Berkeley Laboratory Liquid/Sludge Hazardous Waste Shipped - 2001

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2001	Average Pounds per month	
Lab packs from laboratory research destined for thermal destruction	331	551	lab packs			
				CAD059494310	4328	
				CAT080014079	153	
				NED981723513	6000	
				10481	873	
Lab packs containing acutely hazardous wastes from laboratory research	132	141	D003 D004 D005 D006 D009			
	181	311	D022 LABP P005 P011 P012			
	513	551	P030 P043 P075 P081 P087			
	711	721	P098 P105 P120			
	722	741				
				CAD059494310	80	7
Lab packs of contaminated debris destined for land disposal	141	181	D001 D006 D007 D008 D009			
			D011 F003 F005 LABP			
				CAD059494310	297	25
					297	25
Lab packs of chemicals from laboratory research destined for incineration	141	551	D001 D002 D004 D007 D008			
			D011 LABP			
				CAD059494310	463	39
				463	39	
Lab packs of reactive chemicals from laboratory research destined for thermal destruction	141	551	D001 D002 D003 D005 D007			
			LABP			
				TXD055141378	493	41
				493	41	
Lab packs of elemental mercury and mercury compounds from laboratory research	551	725	D002 D006 D009 D025 LABP			
	791					
				CAD059494310	56	5
			NED981723513	14	1	
				70	6	

**Lawrence Berkeley Laboratory  
Liquid/Sludge Hazardous Waste Shipped - 2001**

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2001	Average Pounds per month
Oily sludge waste contaminated with solvents, gasoline or diesel fuel destined for thermal destruction	352	D018 F002	CAD059494310	353	29
				353	29
Flammable liquid solvent wastes from laboratory research destined for recycling	741	D001 D022 D038 F002 F003	CAD059494310	1034	86
			NED981723513	244	20
			1278	107	
Mixed ignitable non-halogenated halogenated solvents from laboratory research destined for thermal destruction	214 741	D001 D019 D022 D028 D040 F002 F003 F005	CAD059494310	1259	105
			NED981723513	115	10
			1374	115	
Waste lithium batteries from portable equipment destined for incineration	181	D003	CAD059494310	27	2
				27	2
Diatomaceous earth absorbents contaminated with benzene destined for incineration	181	D018	CAD059494310	245	20
				245	20
Spent nickel-cadmium batteries destined for recycling by metals recovery	181	D002 D006	CAD059494310	228	19
				228	19
Wastewater treatment sludge from electroplating operation destined for incineration	171	F006	CAD059494310	138	12
				138	12

## Lawrence Berkeley Laboratory Liquid/Sludge Hazardous Waste Shipped - 2001

Waste Description	State Codes	EPA Waste Codes	TSDF EPA ID	Total Pounds 2001	Average Pounds per month
Wastewater treatment sludge from electroplating destined for land disposal	171	F006	CAD059494310	242	20
<hr/>					
Contaminated diesel fuel destined for incineration	343	D001	NED981723513	250	21
<hr/>					
Spent inorganic acid solutions with dissolved metals from laboratory research	792	D002 D007 D008	NED981723513 CAD059494310	2749 117	229 10
<hr/>					
Spent ignitable and corrosive solvent/water mixtures from laboratory research destined for incineration	551	D001 D002	NED981723513	34	3
<hr/>					
Waste photographic fixer and developer solutions from laboratory research destined for treatment	541	D011	NED981723513 CAD059494310	716 2469	60 206
<hr/>					
Spent photographic fixer and developer solutions from laboratory research destined for incineration	541	D011	NED981723513	605	50
<hr/>					
Wastewater contaminated with oil, gasoline and/or diesel fuel destined for incineration	223	D018	NED981723513	430	36
<hr/>					
				430	36



## Lawrence Berkeley Laboratory Liquid/Sludge Hazardous Waste Shipped - 2001

Waste Description	State Codes	EPA Waste Codes	TSDF EPA ID	Total Pounds 2001	Average Pounds per month
Debris contaminated with hazardous waste from research laboratory support operations destined for incineration	181	352	D007 D008 D009 D018 F005	538	45
			NED981723513 CAD059494310	1146	96
				<u>1684</u>	<u>140</u>
Soil contaminated with mercury from site remediation destined for treatment and land disposal	611	D009	NED981723513	1630	136
					<u>1630</u>
Oil, gasoline and water from spill cleanups destined for incineration	343	D001 D018	CAD059494310	333	28
					<u>333</u>
Debris contaminated with hazardous wastes destined for treatment and land disposal	181	D004 D006 D007 D008 D010 D011 D022 D038 F005	CAD059494310	3800	317
					<u>3800</u>
Spent nitric, phosphoric and sulfuric acids from metal cleaning and etching destined for treatment	792	D002 D007	CAD059494310	1374	115
					<u>1374</u>
Spent corrosive basic aqueous wastes from metal cleaning operations destined for treatment	122	D002	CAD059494310	42	4
					<u>42</u>
Spent basic corrosive solutions from metal cleaning destined for treatment and land disposal	122	D002	CAD059494310	58	5
					<u>58</u>

**Lawrence Berkeley Laboratory  
Liquid/Sludge Hazardous Waste Shipped - 2001**

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2001	Average Pounds per month
Waste corrosive acid solutions with dissolved metals from metal cleaning destined for treatment and land disposal	792	D002 D007	CAD059494310	3091	258
				3091	258
Spent lead-acid batteries destined for metal reclamation	724 792	D002 D008	CAD059494310	843	70
				843	70
Spent mercury batteries destined for metals reclamation	181 D009		CAD059494310	4	0
				4	0
Waste water with dissolved mercury from site cleanup destined for tank treatment	725 D009		CAD059494310	1833	153
				1833	153
Mercury-contaminated debris from laboratory research and support operations destined for metals recovery	181 D009		CAD059494310	591	49
				591	49
Spent mercury-containing strippable coating from paint booth destined for land disposal	352 D009		CAD059494310	131	11
				131	11
Ignitable oil-based paint and solvent waste from painting destined for recycling	214 D001 D035 F003 F005		CAD059494310	383	32
				383	32

## Lawrence Berkeley Laboratory Liquid/Sludge Hazardous Waste Shipped - 2001

Waste Description	State Codes	EPA Waste Codes	TSD/EPA ID	Total Pounds 2001	Average Pounds per month
Ignitable oil-based paint and solvent wastes from painting operation destined for incineration	214	D001 D035 F003 F005	CAD059494310	250	21
				250	21
Lead-based paint chips and debris from stripping old paints in preparation for painting destined for land disposal	181	D008	CAD059494310	1850	154
				1850	154
Radioactive mixed waste scintillation fluids from laboratory research destined for incineration	135	D002 D004 D007 D008 LABP	FLD980711071	240	20
				240	20
Waste radioactive ignitable chemical oxidizers from laboratory research destined for thermal treatment	181	D001	WAR000010355	106	9
				106	9
Aqueous radioactive wastes from laboratory research destined for treatment, land disposal	131 132	D001 D004 D006 D007 D008	WAR000010355	1246	104
	181 352 541 721 723 725	D009 D011		1246	104
Radioactive corrosive acid waste from laboratory research destined for incineration	791	D002	WAR000010355	42	4
				42	4

## Transporters used in 2001

EPA ID	Transporter	Street	City	State	Zip	Telephone
CAD004778742	STURGEON AND SON, INC.	3511 Gilmore Ave.	Bakersfield	CA	93308	(805) 322 - 4408
CAD982413262	EVERGREEN ENVIRONMENTAL SERVICES	6880 Smith Avenue	Newark	CA	94560	(800) 972 - 5284
CAD982513632	DENBESTE	7705 Conde Lane	Windsor	CA	95492	(707) 838 - 1407
CAD982524480	CROSBY & OVERTON	8430 Amelie Street	Oakland	CA	94621	(510) 633 - 0336
CAL000100833	JANUS CORPORATION	3795 Pacheco Blvd., Suite C	Martinez	CA	94553	(925) 313 - 8400
CAR000017657	BDC-FALCON SPECIAL WASTE SERVICES	6233 San Leandro St.	Oakland	CA	94621	(510) 568 - 6732
CAR000094664	BAD JR. TRANSPORT INC.	10575 Banana Ave	Fontana	CA	92337	(909) 428 - 3816
CAT000624247	MP ENVIRONMENTAL SERVICES	1413 Cashville Road	Yolo	CA	95697	(800) 245 - 9518
ILD047267364	ADCOM EXPRESS	2462 S. Santa Fe Ave	Vista	CA	92084	(760) 727 - 6461
MAD039322250	CLEAN HARBOR ENV. SERVICES, INC.	1501 Washington Street	Braintree	MA	02184	(781) 849 - 1800
MOR000012948	R&R TRUCKING	302 Thunder Road	Duenweg	MO	64841	(888) 308 - 6951
NJD980536593	ONYX ENVIRONMENTAL SERVICES	1125 Hensley Street	Richmond	CA	94801	(973) 347 - 7111
SCD987574647	SAFETY KLEEN (TG), INC.	400 Market Street	Oakland	CA	94607	(803) 587 - 3139
SCR000074591	SAFETY-KLEEN, INC.	400 Market Street	Oakland	CA	94607	(803) 587 - 3139



# WASTEWATER DISCHARGE PERMIT

Regents of the University of California  
 FACILITY NAME Lawrence Berkeley National  
Laboratory

## Terms and Conditions WATER SOURCE AND USE

**PURPOSE:** This information will enable EBMUD to evaluate the volumes and source(s) of wastewater discharged to the community sewer.

Permit Number  
 0660079 1

**Water Use and Disposition** Estimate the average quantity of water received and wastewater discharged daily.

**NOTE:** Show on a separate sheet the METHOD AND CALCULATIONS used to determine the quantities shown on the table.

	Supply From			Discharged To		
	EBMUD	Other (1)		Community Sewer	Other (2)	
WATER USED FOR:	gal/day	gal/day	code	gal/day	gal/day	code
SANITARY	45,380			45,380		
PROCESSES	576			576		
BOILER	2,229				2,229	g
COOLING	66,218			28,288	37,931	g
WASHING	200			200		
IRRIGATION	2,322				2,322	i
OTHER (3)						
UCB	132,152			62,522	69,630	i
<b>TOTAL</b>	<b>249,077</b>			<b>136,966</b>	<b>112,111</b>	

Notes:

(1) Enter the quantity and the appropriate code letter indicating the source:

- a. well b. creek c. estuary d. bay e. stormwater f. reclaimed water

(2) Enter the quantity and the appropriate code letter indicating the discharge point:

- a. well b. creek c. estuary d. bay e. stormdrain f. rail, truck, barge g. evaporation h. product i. land

(3) Describe: UCB facilities on same supply line as LBNL, and discharge to Strawberry Sewer.

"Other Discharge" includes Botanical Garden irrigation; see Tables 1 and 2,

Attachment C.

**Total Number of Employees** Total ± 3900

	Office		Production (number of employees per shift)					
	No.	Hours	Day Shift		Swing shift		Night shift	
			No.	Hours	No.	Hours	No.	Hours
Weekday	± 3900	8 to 5	--	to	--	to	--	to
Saturday	± 100	8 to 5	--	to	--	to	--	to
Sunday	± 100	8 to 5	--	to	--	to	--	to

**Source of Wastewater Discharged**

Water Meter Number	Use Code (see reverse)	Percent (%) discharged to: Side Sewer									Total % Disch. to all side sewers
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	
70027448	I, S, F, C, B, X	Varies	Varies								55%
00004710											



Regents of the University of California  
 FACILITY NAME Lawrence Berkeley National  
Laboratory

# WASTEWATER DISCHARGE PERMIT

## Terms and Conditions

### STRENGTH SUMMARY

**PURPOSE:** This information will identify for EBMUD the variation in flow rate and the type of constituents and characteristics of the discharge for each side sewer. Permit Number  
0660079 1

Side Sewer No. 1 Side Sewer Location Hearst Sewer, Blackberry Canyon

**Wastewater Flow Rate**

Peak Hourly (gallons/minute)	Maximum Daily (gallons/day)	Annual Daily Average (gallons/day)	Max. Monthly (CCF *)
NA	NA	98,902	NA

\* CCF = hundred cubic feet = 748 gallons

**Discharge Frequency**

Discharge Period	Batch Discharge(s)
<input checked="" type="checkbox"/> Continuous <input checked="" type="checkbox"/> 24 hrs./day <input checked="" type="checkbox"/> 365 day/year; or a. Time of day from <u>--</u> to <u>--</u> b. Days of the week <u>--</u>	a. Day(s) of the week <u>--</u> b. Time(s) of the day <u>--</u> c. Volume discharged <u>--</u> d. Rate of Discharge <u>--</u>

**Stormwater Area** - Total area in square feet exposed to stormwater, rainwater, and groundwater and draining to this side sewer -- sq. ft. Treated groundwater is measured and discharged under EBMUD Permit No. 50347891.

**Wastewater Strength Estimates** - Enter the average annual and maximum wastewater strength for this side sewer for each of the following elements of wastewater strength for the period covered by the Permit. These values will become the basis for sewage disposal charges and are the average and maximum limits on the elements of the discharger's wastewater strength.

Elements of Wastewater Strength	Unit	Average	Maximum
Total Suspended Solids (TSS)	mg/L	350	560
Filtered Chemical Oxygen Demand (CODF)	mg/L	138	250

Provide the name and address of the laboratory and the State of California, Department of Health Services, Environmental Laboratory Accreditation Program Certificate Number of the laboratory performing self-monitoring analyses.

Name BC Laboratories Telephone (805) 327-4911

Street 4100 Atlas Court City Bakersfield State CA Zip 93308

Certificate Number 1186



Regents of the University of California  
 FACILITY NAME Lawrence Berkeley National  
Laboratory

# WASTEWATER DISCHARGE PERMIT

## Terms and Conditions

### STRENGTH SUMMARY

**PURPOSE:** This information will identify for EBMUD the variation in flow rate and the type of constituents and characteristics of the discharge for each side sewer. Permit Number  
0660079 1

Side Sewer No. 2 Side Sewer Location Strawberry Canyon, Centennial Drive

**Wastewater Flow Rate**

Peak Hourly (gallons/minute)	Maximum Daily (gallons/day)	Annual Daily Average (gallons/day)	Max. Monthly (CCF *)
NA	NA	38,064	NA

\* CCF = hundred cubic feet = 748 gallons

**Discharge Frequency**

Discharge Period	Batch Discharge(s)
<input checked="" type="checkbox"/> Continuous <input checked="" type="checkbox"/> 24 hrs./day <input checked="" type="checkbox"/> 365 day/year; or a. Time of day from <u>  --  </u> to <u>  --  </u> b. Days of the week <u>  --  </u>	a. Day(s) of the week <u>  --  </u> b. Time(s) of the day <u>  --  </u> c. Volume discharged <u>  --  </u> d. Rate of Discharge <u>  --  </u>

**Stormwater Area** - Total area in square feet exposed to stormwater, rainwater, and groundwater and draining to this side sewer   --   sq. ft. Treated groundwater is measured and discharged under EBMUD Permit No. 5034789 1.

**Wastewater Strength Estimates** - Enter the average annual and maximum wastewater strength for this side sewer for each of the following elements of wastewater strength for the period covered by the Permit. These values will become the basis for sewage disposal charges and are the average and maximum limits on the elements of the discharger's wastewater strength.

Elements of Wastewater Strength	Unit	Average	Maximum
Total Suspended Solids (TSS)	mg/L	180	270
Filtered Chemical Oxygen Demand (CODF)	mg/L	74	110

Provide the name and address of the laboratory and the State of California, Department of Health Services, Environmental Laboratory Accreditation Program Certificate Number of the laboratory performing self-monitoring analyses.

Name BC Laboratories Telephone (805) 327-4911

Street 4100 Atlas Court City Bakersfield State CA Zip 93308

Permit Certificate Number 1186



# WASTEWATER DISCHARGE PERMIT

Terms and Conditions

Lawrence Berkeley National Laboratory  
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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.

## COMPLIANCE REQUIREMENTS

- I. Lawrence Berkeley National Laboratory shall implement an accidental spill prevention and containment plan to eliminate or minimize the potential for an accidental or slug discharge of pollutants into the sanitary sewer system. The spill plan shall contain a response procedure posted in the work areas where spills are most likely to occur.
- 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

Terms and Conditions

Lawrence Berkeley National Laboratory  
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## REPORTING REQUIREMENT

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

## WASTEWATER DISCHARGE LIMITATIONS

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

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

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

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



# WASTEWATER DISCHARGE PERMIT

## Terms and Conditions

Lawrence Berkeley National Laboratory  
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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 as follows:

Parameter	Sample Type <sup>1</sup>	Analytical Method	Frequency <sup>2</sup>	
			SS#1	SS#2
pH	Grab	EPA 150.1	Semi-Annual	Semi-Annual
TICH	Grab	EPA 624	Semi-Annual	Semi-Annual
Chemical Oxygen Demand, Filtered <sup>3</sup> (CODF)	Composite	EPA 410.4 <sup>4</sup>	Semi-Annual	Semi-Annual
Total Suspended Solids (TSS)	Composite	EPA 160.2	Semi-Annual	Semi-Annual
Cadmium	Composite	EPA 200.7 <sup>5</sup>	Annual	Annual
Chromium	Composite	EPA 200.7 <sup>5</sup>	Annual	Annual
Copper	Composite	EPA 200.7 <sup>5</sup>	Annual	Annual
Lead	Composite	EPA 200.7 <sup>5</sup>	Annual	Annual
Nickel	Composite	EPA 200.7 <sup>5</sup>	Annual	Annual
Silver	Composite	EPA 200.7 <sup>5</sup>	Annual	Annual
Zinc	Composite	EPA 200.7 <sup>5</sup>	Annual	Annual

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

<sup>2</sup>The District will notify Lawrence Berkeley National Laboratory of the sample day.

<sup>3</sup>The 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 H<sub>2</sub>SO<sub>4</sub> to pH<2. The maximum holding time is 28 days.

<sup>4</sup>Filter sample using a glass fiber filter (Whatman grade 934 AH or other filters that give demonstrably equivalent results) prior to analysis.

<sup>5</sup>The 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.

no lab preserves as soon as they get it.



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## SELF-MONITORING REPORTING REQUIREMENTS (continued)

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 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

Effective 7/1/2003 4/8/2003

Total Suspended Solids (TSS) =	\$0.239	\$0.234	/pound
Chemical Oxygen Demand-Filtered (CODF) =	\$0.138	\$0.135	/pound
Volume =	\$0.439	\$0.429	/hundred cubic feet (\$/Ccf)

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.

	Effective 7/1/2003				Effective 4/8/2003			
	Side sewer #1		Side sewer #2		Side sewer #1		Side sewer #2	
	mg/L	\$/Ccf	mg/L	\$/Ccf	mg/L	\$/Ccf	mg/L	\$/Ccf
TSS	365	0.544	199	0.297	365	0.533	199	0.291
CODF	148	0.127	68	0.059	148	0.125	68	0.057
Volume		<u>0.439</u>		<u>0.439</u>		<u>0.429</u>		<u>0.429</u>
SS rate =		\$1.111		\$0.794		\$1.087		\$0.777

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

	Side sewer #1		Side sewer #2		Total for meter
<u>Meter No.</u>	<u>%</u>	<u>\$/Ccf</u>	<u>%</u>	<u>\$/Ccf</u>	<u>Effective 7/1/2003</u> <u>\$/Ccf</u>
70027448	70%	0.778	30%	0.238	1.016
00004710	70%	0.778	30%	0.238	1.016
					<u>Effective 4/8/2003</u> <u>\$/Ccf</u>
<u>Meter No.</u>	<u>%</u>	<u>\$/Ccf</u>	<u>%</u>	<u>\$/Ccf</u>	<u>\$/Ccf</u>
70027448	70%	0.761	30%	0.233	0.994
00004710	70%	0.761	30%	0.233	0.994

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.

Account Number	Meter Number	Conversion Units	Conversion Factor	Percent Discharged	Fixed Volume Ccf/month	Meter Rate \$/Ccf
						<b>Effective 7/1/2003</b>
6600801	70027448	Ccf	1.0	62%	0	1.016
6600791	00004710	Ccf	1.0	62%	0	1.016
						<b>Effective 4/8/2003</b>
6600801	70027448	Ccf	1.0	62%	0	0.994
6600791	70027448	Ccf	1.0	62%	0	0.994

SD-30.72



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### MONITORING and TESTING CHARGES

Effective 7/1/2003

EBMUD Inspections Per Year: 4 @ \$590.00 each \$2,360.00 /year

Analyses Per Year:

Parameter	Tests per year	Charge per test	Total Charge per year
pH	8	\$15.00	\$120.00
TSS	8	\$32.00	\$256.00
CODF	8	\$49.00	\$392.00
EPA 624	4	\$168.00	\$672.00
EPA 200.7 Metals	4	\$83.00	\$332.00

Total Monitoring and Testing Charge = \$4,132.00 / year  
\$344.33 / month

Effective 4/8/2003

EBMUD Inspections Per Year: 4 \$540.000 \$2,360.00 /year

Analyses Per Year:

Parameter	Tests per year	Charge per test	Total Charge per year
pH	8	\$13.00	\$104.00
TSS	8	\$29.00	\$232.00
CODF	8	\$45.00	\$360.00
EPA 624	4	\$146.00	\$584.00
EPA 200.7 Metals	4	\$98.00	\$392.00

Total Monitoring and Testing Charge = \$4,032.00 / year  
\$336.00 / month

SD-3072



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## FEEES AND WASTEWATER CHARGES

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

Annual Permit Fee:		\$1,770.00
Monthly Monitoring Charge:	Effective 7/1/2003	\$344.33
	Effective 4/8/2003	\$336.00

## WASTEWATER DISPOSAL SERVICE CHARGE

Account Number	Meter Number	Units	Conversion Factor	Percent Discharged	Fixed Volume Ccf / month	Meter Rate \$/Ccf
						<b>Effective 7/1/2003</b>
6600801	70027448	Ccf	1.0	62%	0	\$1.016
6600791	00004710	Ccf	1.0	62%	0	\$1.016
						<b>Effective 4/8/2003</b>
6600801	70027448	Ccf	1.0	62%	0	\$0.994
6600791	00004710	Ccf	1.0	62%	0	\$0.994

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. 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: April 8, 2003

Expiration: July 7, 2007

*David R Williams*  
Director, Wastewater Department

9/10/03  
Date



# 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 specific and standard 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. 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.

**V. Dilution Prohibition**

The Permit Holder shall not in any way dilute the wastewater discharge as a substitute for treatment to achieve compliance with the Permit Terms and Conditions.

**VI. Bypass of Treatment Facilities**

The Permit Holder shall not bypass treatment facilities unless:

- a) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production).
- b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
- c) The Permit Holder submitted advance notice of the need for a bypass to the District. If the Permit Holder knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.

The Permit Holder shall submit notice of an unanticipated bypass as required in Section B, Paragraph II. Twenty-four Hour Violation Reporting.





**VII. Closure Plan**

The District may require a facility that 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. 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.

**IX. 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.

**X. Payment of Permit Fees and Charges**

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

**XI. 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.

**XII. Permit Termination**

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

**XIII. Transfer of Permit Prohibition**

The Permit Holder shall not assign or transfer the Permit.



**XIV. Severability**

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

**XV. Property Rights**

The issuance of the Permit does not convey to the Permit Holder any property rights of any sort or any exclusive privileges. Nor does such issuance authorize any injury to private property, any invasion of property rights, or any violation of federal, state or local laws.

**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 Source Control Division at (510) 287-1651 during business hours or (510) 287-1458 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. 311, 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



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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 collects samples of the permitted discharge at a frequency of at least once per month, or
  2. the District collects 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

### 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 terms and conditions of the Permit.

### IV. Hazardous Waste Notification

The Permit Holder shall submit to the District a written notification in accordance with 40 CFR 403.12(p) 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. Signatory Requirements

The Permit Holder shall submit in accordance with the signatory requirements of 40 CFR 403.12 (l) all applications, self-monitoring reports, violation response reports, compliance reports, and other reports or documents required by the District. The submittal shall include the following certification statement and shall be signed by the duly authorized representative:

*"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 of the following documents:
1. all records used to complete the Permit Application
  2. copies of reports required by the Permit
  3. all records of monitoring information, including calibration and maintenance records, and original strip chart recordings of continuous monitoring instrumentation
- b) The Permit Holder shall retain all documents for a period of at least three years from the date of the application, report, or monitoring event. The District may extend the document retention period. The Permit Holder shall make all retained records and documents available in a timely manner for inspection.
- c) The Permit Holder shall retain and preserve all records pertaining to special orders or any other enforcement or litigation activities brought by the District until all enforcement activities have concluded and all periods of limitation with respect to any appeals have expired.

**VII. Additional Monitoring**

If the Permit Holder monitors any pollutant at the compliance point more frequently than required by this Permit, using test methods specified in the Permit, the results of such monitoring shall be reported on a monthly basis to the District.

**VIII. 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)



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- 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. 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.

### VI. Tampering with Equipment

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

### VII. 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. Annual Publication

The Permit Holder shall be subject to annual publication in the largest daily newspaper published within the SD-1 service area if at any time during the previous 12 months, the Permit Holder was in Significant Noncompliance with the terms and conditions of the Permit.

### II. Violations of Permit Terms and Conditions

The Permit Holder shall be subject to District actions for failure to comply with the terms and conditions of the Permit. 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 Ordinance No. 311, Title VI.

### III. 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 (also known as Pollution Prevention Practices) are guidelines and procedures that include maintenance procedures, management practices and prohibition of practices that focus on the reduction or elimination of pollutants or wastes at the source.

**Bypass** - The 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** - Refers to the term "Manager", as defined in EBMUD Ordinance No. 311, the Director of the District's Wastewater Department, or his/her designated representative.

**Discharge Minimization Permit** - Permits issued for the purpose of regulating the discharge of wastewater to the sanitary sewer. Discharge Minimization Permits generally include monitoring and reporting requirements and District inspections.

**District** - Refers to East Bay Municipal Utility District (EBMUD). EBMUD is a publicly owned water district formed in 1923 under the Municipal Utility District Act of 1921.

**Hazardous Waste** - Listed and characterized wastes under the 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** - Permits issued to businesses in specific commercial categories. Pollution Prevention Permits are based on pollution prevention or waste minimization at sources, and the implementation of specific BMPs.

**POTW** - Publicly Owned Treatment Works, e.g., EBMUD SD-1.

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

**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.

**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** – The status of a Permit Holder when one or more of the following conditions exist:

- 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 equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC.  
TRC = 1.4 for Oil and Grease.  
TRC = 1.2 for all other pollutants (except pH).
- c) Any violation of a discharge limit, maximum or average, that the District determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of District 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 exercise of emergency authority.
- e) Failure to meet, within 90 days after the schedule 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 non-routine batch discharge that may cause problems to the POTW including interference [40 CFR 403.3(i)] or pass-through [40 CFR 403.3(n)], or that may result in the Permit Holder being in violation of the General Prohibitions or Specific Prohibitions contained in 40 CFR 403.5.

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

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





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**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.

**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.

**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.

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**APPENDIX: TABLE OF APPROVED TEST METHODS**  
**Required Preservation & Holding Times**

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.

Parameter	Preservative	Maximum Hold Time	EPA Method	STD Methods* 18 <sup>th</sup> Ed.
Arsenic (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	6 months	206.3 200.7	3114 B 3120 B
Cadmium (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	6 months	213.2 200.7	3113 B 3120 B
CODF, using a Whatman 934AH Glass Microfiber filter, or equivalent	Preserve with H <sub>2</sub> SO <sub>4</sub> to pH <2 Cool to 4°C	28 days		5220 D
Chromium (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	6 months	218.2 200.7	3113 B 3120 B
Copper (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	6 months	220.2 200.7	3113 B 3120 B
Cyanide (Amenable)	NaOH to pH>12 Ascorbic acid if Cl <sub>2</sub> present Cool to 4°C	14 days	335.1	4500-CN G
Cyanide (Total)	NaOH to pH>12, ascorbic acid if Cl <sub>2</sub> present Cool to 4°C	14 days	335.2	4500-CN B-E
Iron (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	6 months	200.7	3113 B 3120 B
Lead (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	6 months	239.2 200.7	3113 B 3120 B
Mercury (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	28 days	245.1 245.2	3112 B
Nickel (Total)	HNO <sub>3</sub> to pH<2 Cool to 4°C	6 months	249.2 200.7	3113 B 3120 B
Oil & Grease (Total) Oil & Grease (HC)	H <sub>2</sub> SO <sub>4</sub> to pH<2 Cool to 4°C	28 days	1664 HEM 1664 HEM- SGT	
Phenolic Compounds	H <sub>2</sub> SO <sub>4</sub> 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 <sub>3</sub> to pH<2 Cool to 4°C	6 months	272.2 200.7	3113 B 3120 B
Temperature (°C)	None	Analyze immediately	170.1	2550 B

Parameter	Preservative	Maximum Hold Time	EPA Method	STD Methods* 18 <sup>th</sup> Ed.
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 <sub>3</sub> 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 <sub>2</sub> is present. VOA vials, No headspace. Cool to 4°C	14 days	624 <sup>1</sup> 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 <sub>2</sub> is present. VOA vials, No headspace. Cool to 4°C	14 days	624 8260 B	

<sup>1</sup> 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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