

**CENTRAL CONTRA COSTA SANITARY DISTRICT
Class III Industrial User Permit**

Industrial User Name: Joint Genome Institute			
Site Address: 2800 Mitchell Drive, Walnut Creek, California			
Mailing Address: 2800 Mitchell Drive, Walnut Creek, California 94598			
Permit Issued:	January 1, 2006	Permit Fee through December 31, 2006	\$351.00
Permit Renewal:	December 31, 2008	Permit Fee through December 31, 2008	Billed Annually

Certification

- The Industrial User agrees to comply with Title 10 of the District Code and the terms and conditions of this permit.
- The Industrial User understands that this permit may be revoked and permission to discharge may be denied.
- The Industrial User shall be liable for all damages, direct and consequential, caused by violating the terms and conditions of this permit.

"I am an authorized representative of the Industrial User as specified in CCCSD Code Title 10.04.020 (B). I have authority to commit resources necessary to achieve and maintain compliance with the conditions of this permit. I have reviewed this permit document and understand the requirements contained herein."

Company Officer:

Name: CARL RAY TURNER II
 Title: OPERATIONS MANAGER
 Signature: [Signature]
 Date: 12/19/05

Definition of Authorized Representative of Industrial User: An authorized representative of an industrial user may be: (1) the principal executive officer, if the industrial user is a corporation; (2) general partner or proprietor if the industrial user is a partnership or proprietorship, respectively; (3) duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the discharge originates and if such representative is identified in writing by the individual designated in (1) or (2) above.

Authorization

The Industrial User is authorized to discharge wastewater to the sanitary sewer, subject to the Industrial User's compliance with Title 10 of the District Code, 40CFR, and the terms and conditions of this permit. This authorization is conditional on the Industrial User signing and returning the above certification to the District's Source Control Section.

Central Contra Costa Sanitary District

Name: Timothy L. Potter
 Title: Source Control Program Superintendent
 Signature: [Signature]
 Date: 12/16/05

Corporate Information (if applicable)

Name of Corporation:	N/A	State of Incorporation:	N/A
Address:	N/A		
Corporate Agent:	N/A	Phone:	N/A
Address:	N/A		

Property Owner:

Property Owner:	Hall Equities Group		
Address:	1855 Olympic Boulevard, Suite 250, Walnut Creek, CA 94596		
Contact:	Nancy Manion	Phone:	(925) 933-4000 ext 234

Chief Executive Officer, General Partner, or Proprietor:

Name:	Dr. Eddy Rubin	Title:	Director
Address:	1 Cyclotron Road, Berkeley, CA 94720		

Person to be contacted about this permit:

Name:	Ron Pauer	Phone (Day):	(510) 486-7614
Title:	Environmental Services Group Leader Lawrence Berkeley Laboratory	Phone (Night):	(510) 486-7614

Person to be contacted in case of emergency:

Name:	Greg Stanley	Phone (Day):	(925) 296-5898
Title:	Facilities Manager	Phone (Night):	(925) 997-4834

Facility Description:

Type of business or operation:	Genetic research primarily DNA sequencing.		
Description of applicable processes:	Laboratory research using high throughput DNA sequencing and other related research; autoclave discharges; glassware and carboy washing; floor mopping, and all other non-domestic discharges. Zero discharge: hazardous laboratory chemicals and wastes.		
Description of categorical processes:	None		
SIC Codes:	8733		
Plans:	SDPC Plan to be updated in 2006	No TTO Management Plan on file	

I. GENERAL REQUIREMENTS

This Industrial User Permit sets forth the terms and conditions for compliance with Title 10 of the Central Contra Costa Sanitary District (District) Code and the National Pretreatment Standards set forth in 40 CFR Part 403. This permit applies to discharges and potential discharges to the sanitary sewer and does not authorize discharges to the stormwater collection system.

- A. **Permit Period:** This permit is in effect for the period stated on the first page. The terms and conditions of this permit shall remain in effect until a new or revised permit is issued by the District or until the District certifies that a permit is no longer required.
- B. **Zero Discharge:** The Industrial User shall not allow discharges to the sanitary sewer from the Zero Discharge processes listed on the second page of this permit.
- C. **Discharge Limits:** For all discharges to the sanitary sewer, the Industrial User shall comply with the District's Local Discharge Limits, applicable National Categorical Pretreatment Standards, and any more stringent limits in the Appendix. The point for determining compliance shall be at the end of each process and its associated pretreatment. The Industrial User shall also comply with the discharge prohibitions in Chapter 10.08 of Title 10 of the District Code.
- D. **Categorical Discharges:** No discharge to the sanitary sewer from processes subject to National Categorical Pretreatment Standards is allowed unless the following conditions have been met:
- The District's Source Control Section has issued specific written permission to discharge from the categorical process.
 - The discharge is monitored in accordance with 40 CFR Part 403.

See the *National Categorical Pretreatment Standards: Information for Industrial Users* in the Appendix.

- E. **Compliance Schedule:** All items listed in this permit are effective immediately except for tasks listed in the Appendix.
- F. **Source Reduction:** The Industrial User shall initiate a program of continuous improvement to reduce pollutant loadings from all process discharges. This program may include, but is not limited to, the following:
- Materials and product substitutions (e.g., using the least toxic alternative in the smallest effective quantity);
 - Process or equipment changes (e.g., use of less toxic raw materials);
 - Operational improvements (e.g., segregation of wastes and production scheduling to minimize storage and handling of hazardous materials);
 - Improved housekeeping practices (e.g., minimizing spills);
 - Improved administrative procedures (e.g., inventory control to prevent generation of off-spec and expired materials);
 - Personnel education and communication to involve employees in pollution prevention.

- G. **Best Management Practices:** The Industrial User shall follow available Best Management Practices (BMPs) for processes conducted at the site.
- H. **Access:** The Industrial User shall provide District personnel with access to the facility, discharge location, and/or sampling location at all reasonable times. This access is required in order for District personnel to conduct inspections of the facility and to perform sampling of the wastewater discharge from the premises. In addition, District personnel shall be allowed to take photographs of the facility, the discharge, or the processes related to the discharge once access is provided.
- I. **Safety:** The Industrial User shall ensure that District personnel are informed of any specific safety procedures, alarms, or personal protective equipment requirements of the entire facility or within certain areas of the facility. In addition, the Industrial User shall provide District personnel with a safe and easily accessible location for sampling.
- J. **Permit Fee:** The Industrial User shall pay an annual Industrial User Permit Fee which is based on a schedule adopted by the District's Board of Directors and includes costs incurred in the administration of the District's Source Control program as it applies to the Industrial User.
- K. **Other Fees & Charges:** The Industrial User shall pay all other applicable fees and charges adopted by the District's Board of Directors by resolution each year.
- L. **Submittals:** The Industrial User shall send all submittals required in this permit to the following address:

Central Contra Costa Sanitary District
Attention: Source Control Section
5019 Imhoff Place
Martinez, CA 94553

II. PRETREATMENT AND MONITORING REQUIREMENTS

- A. **Sampling Structure:** The District requires access to the Industrial User's process discharge in order to monitor for compliance with the conditions of this permit. The District may require the Industrial User to install a sampling structure at a point that is tributary from all of the non-domestic discharges from the facility.

If installation of a sampling structure is required, the actions to be completed are identified in the Compliance Schedule (see Appendix). The Industrial User shall obtain approval and all necessary permits regarding the design and location of the process discharge lateral and sampling structure from the District prior to construction.

- B. **Monitoring Equipment:** The Industrial User is responsible for monitoring its discharge to ensure it meets the District's requirements. The District may require that the Industrial User install, maintain, and operate monitoring equipment. Such monitoring equipment includes, but is not limited to: pH meters, combustible gas detectors, and flow meters. The District's requirements for monitoring equipment are identified in the Appendix.

The monitoring equipment required in this permit shall be maintained and calibrated on a regular basis to ensure accurate monitoring of the regulated processes. Any maintenance, adjustments, malfunctions or calibrations of this equipment shall be noted in the operations and maintenance log (see Appendix).

- C. **Pretreatment Equipment:** The Industrial User shall install, operate and maintain any pretreatment equipment necessary to meet the terms and conditions of this permit. The Industrial User shall develop, implement, and follow Standard Operating Procedures (SOPs) to ensure the proper operation of the pretreatment equipment. Any maintenance, adjustments, malfunctions or calibrations of this equipment shall be noted in the operations and maintenance log (see Appendix).
- D. **Sampling and Analysis:** The District may require the Industrial User to conduct sampling and analysis of a process discharge (See Appendix). The District will notify the Industrial User in writing of any additional required sampling and analysis. If sampling and analysis is required, the Industrial User shall refer to the Appendix for applicable definitions and procedures.

III. OPERATIONS AND MAINTENANCE REQUIREMENTS

- A. **Tampering and Interference:** The Industrial User shall not tamper with, or in any way interfere with, District monitoring or sampling equipment or activities. The Industrial User shall not intentionally alter the process discharge during a District sampling event in order to influence the outcome of the District's monitoring.
- B. **Bypass of Pretreatment System:** The Industrial User shall not allow the discharge to bypass the wastewater pretreatment system unless bypass is unavoidable to prevent the loss of life, injury, or severe property damage. The District may approve bypass of a pretreatment system if the Industrial User can demonstrate that the discharge meets the terms and conditions of this permit.
- C. **Cessation of Discharge:** The Industrial User shall immediately cease the process discharge when the Industrial User becomes aware that a discharge is in noncompliance with the terms and conditions of this permit.
- D. **Excessive Discharge:** The Industrial User shall not increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit, or in any National Categorical Pretreatment Standards, or in any other pollutant-specific limitation developed by the District. An increase in the use of process water that is reasonably proportional to increased production and which is required for said increase in production will not be considered an excessive discharge.
- E. **Operation and Maintenance Logs:** The Industrial User shall maintain written logs pertaining to all operation and maintenance activities that affect or have the potential to affect discharges from the facility to the sanitary sewer. At a minimum, operation and maintenance logs are required for the activities identified in the Appendix.

- F. Qualified Pretreatment Facility Operator:** The Industrial User shall ensure that the operation of the pretreatment facility is supervised at all times by a fully qualified industrial waste treatment operator. The fully qualified operator shall possess sufficient experience and authority related to the facility's processes in order to maintain the operations of the pretreatment facility in accordance with standard operating procedures developed by the Industrial User.
- G. Process Sludges and Solids:** The Industrial User shall properly store, recycle, and/or dispose of process sludges and solids in accordance with all applicable local, state, and federal laws and regulations. The Industrial User shall implement an inspection and maintenance program to ensure that process sludges and solids do not accumulate in the facility's process discharge lines, sampling structure, and/or sanitary sewer lateral.
- H. Discharge to a Manhole:** The Industrial User shall not discharge to a manhole unless the District specifically approves such discharge in writing.
- I. Hazardous Materials, Toxic or Hazardous Wastes:** The Industrial User shall properly store, treat, recycle and/or dispose of hazardous materials and/or any toxic or hazardous wastes generated at the facility in accordance with all applicable state, federal and local laws. No discharge of hazardous materials or hazardous wastes to the sanitary sewer is permitted.
- J. Hazardous Materials/Hazardous Waste Containment:** The Industrial User shall provide adequate secondary containment for all hazardous materials, satellite hazardous waste storage areas and/or materials prohibited by Title 10 which are sufficiently close to any floor drains or sinks as to have the potential, if a spill should occur, to discharge any of the above materials into the sanitary sewer.

IV. NOTIFICATION REQUIREMENTS

- A. Notification of Dangerous or Prohibited Substances:**
- a. In the event of any discharge to the sanitary sewer of substances known to be dangerous or otherwise prohibited by this permit or by Title 10 of the District Code, or in the event of any discharge to the sanitary sewer of substances that may have an immediate detrimental effect on the District's facilities, operations, or to the public, the Industrial User shall immediately notify the District of the incident by calling both of the following telephone numbers:

229-7214 (Treatment Plant) **and**
 229-7288 (Source Control - leave message if no answer)

The verbal notification shall include the following information at a minimum:

- Business name, contact person, and telephone number.
- Location and duration of the discharge.
- Composition of the substance and its dangerous properties.
- Concentration and volume.
- Immediate corrective actions taken.

The Industrial User shall notify the District of any unusual discharge whether or not the Industrial User is aware of any possible impact to the District's facilities or operations.

- b. Within five (5) working days from the date of the discharge, the Industrial User shall submit a detailed written report to the District's Source Control Section describing the nature and cause of the discharge and the measures that have been or will be taken (with time schedule) to prevent similar future occurrences.
- c. The Industrial User shall permanently post a notice at the Industrial User's premises stating who shall be called in the event of a discharge to the sanitary sewer as described above. The Industrial User shall ensure that all employees who may cause or allow such a discharge to occur are advised of the Industrial User's emergency notification procedure.

B. Notification of Change: The Industrial User shall notify the District's Source Control Section in writing prior to any proposed changes (permanent or temporary) to the premises, processes, chemical usage, wastewater treatment, and/or operations that have the potential for changing the quality, volume, or location of the wastewater discharge or that may otherwise lead to deviation from the terms and conditions under which this permit is granted.

V. REPORTING REQUIREMENTS

A. PCR: The Industrial User shall submit a completed Periodic Compliance Report (PCR) for each reporting period by the due date specified in the Appendix. The completed PCR shall include all documents specified in the Appendix.

The Industrial User may request an extension of the due date for the submittal of the PCR provided that the extension is requested prior to the due date. Facsimile submittal of a completed PCR by the due date will be accepted provided that the original PCR is received within five working days of the facsimile submittal.

B. Flow meter and/or pH recorder charts: If required to perform continuous flow and/or pH monitoring (see Appendix), the Industrial User shall maintain on-site the original flow meter recorder charts and/or pH recorder charts for the reporting period. The Industrial User shall explain any recorded excursions outside the District's limits with the PCR submittal. The Industrial User shall explain any violations in accordance with Section V.D.

C. Other analysis data: The Industrial User shall submit to the District with the PCR any discharge analysis data obtained during the reporting period by EPA approved methods, other than that required by this permit. Should the analysis data indicate a violation of this permit and/or Title 10 of the District Code, the Industrial User shall submit the analysis results to the District in accordance with Section V.D.

- D. **Violations:** After becoming aware of any violation of this permit or Title 10 of the District Code, the Industrial User shall notify the District of the violation within twenty-four hours. The Industrial User shall submit a written report identifying the violation to the District within five working days. The Industrial User shall investigate the cause of the violation and shall submit a report to the District upon request.

The Industrial User shall repeat the sampling and analysis for any pollutant in violation and shall submit the results of this repeat analysis to the District within thirty days of becoming aware of the violation.

VI. ADMINISTRATIVE REQUIREMENTS

- A. **Slug Discharge Prevention and Contingency Plan:** The Industrial User is required to develop and implement a Slug Discharge Prevention and Contingency (SDPC) Plan for the facility and submit this plan to the District. The SDPC Plan must contain the information identified in the CCCSD Guidelines for Preparing an SDPC Plan (see Appendix). The Industrial User may use existing emergency response plans to meet this requirement provided the existing plan is amended to include the information identified in the CCCSD guidelines. The Industrial User shall immediately notify the District, in writing, of any proposed changes to the operations, processes, or facilities that may affect the SDPC Plan.
- B. **Records Retention:** All records relating to compliance with pretreatment requirements or standards and the terms and conditions of this permit shall be made available to authorized representatives of the U.S. EPA, the State of California, and the District. The Industrial User shall maintain these records on-site for a minimum of three years from the date of the record or three years from the date of resolution of any enforcement action.
- C. **Confidential Information:** Information and data submitted to or obtained by the District is available to the public or other governmental agency without notification unless the Industrial User specifically requests confidentiality. The Industrial User shall request confidentiality by marking the documents appropriately and providing sufficient justification. The District will evaluate each request for confidentiality to determine if the release of these documents would divulge trade secrets or violate national security.

The eligible confidential information will not be released to the public but will be made available to other governmental agencies upon request, subject to the same protections. Wastewater constituents and characteristics will not be recognized as confidential information.

- D. **Transferability:** This Industrial User Permit is not transferable to a new site or a new business owner.

VII. ENFORCEMENT

Failure to comply with the terms and conditions of this permit shall subject the Industrial User to enforcement actions as outlined in Chapter 10.16 of the District Code (see Appendix). In addition to the enforcement actions defined above, the Industrial User is subject to the public notification requirements of 40 CFR Part 403 (see Appendix).

**CENTRAL CONTRA COSTA SANITARY DISTRICT
Industrial User Permit Appendix**

This Appendix contains:

- A. Compliance Schedule
 - B. Special Approvals and Conditions
 - C. Certification and Licensing Requirements
 - D. Operation and Maintenance Log Requirements
 - E. Reporting Requirements
 - F. Compliance Sampling and Monitoring Requirements
 - G. Facility Diagram/Sampling Location/Discharge Location
 - Site Plan for 2800 Mitchell Drive
 - Floor Plan Building 100
 - Floor Plan Building 400
-
- CCCSD Local Discharge Limits/List of Total Toxic Organic Pollutants
 - Periodic Compliance Report (PCR) Form
 - Compliance Sampling & Analysis Program: Information for Industrial Users
 - Approved Wastewater Methods and Holding Times
 - National Categorical Pretreatment Standards: Information for Industrial Users
 - Enforcement - Title 10: Chapter 10.16 of District Code
 - Determination of Significant Non-Compliance
 - CCCSD Guidelines for Preparing an SDPC Plan
 - CCCSD General Discharge Prohibition

A. Compliance Schedule

Required Action	Due Date
1. Review and update the Slug Discharge Prevention and Contingency (SDPC) Plan in accordance with CCCSD Guidelines (see Appendix). At a minimum, update the contact information for the current facility personnel. Submit the updated SDPC Plan to the District.	March 31, 2006

The Industrial User may submit a written request for an alternative compliance schedule in advance of the due date if necessary.

B. Special Approvals and Conditions

1. Implement BMPs developed to protect sanitary sewer drains from the discharge of prohibited or restricted materials.
2. Conduct inspections of laboratory and process areas of the facility to ensure the BMPs referenced in Appendix B #1 are being followed and are effective in controlling discharges of chemicals to the sanitary drains. These inspections shall be conducted at least monthly.

C. Certification & Licensing Requirements

1. No additional requirements

D. Operation & Maintenance Log Requirements

Activity to be Logged	Frequency
1. Use the existing hazardous waste accumulation system to record volume and location of hazardous waste stored at the waste accumulation areas and transferred to one of the regulated hazardous waste storage areas.	As performed
2. Record findings for the inspections conducted under Appendix B # 2 above. Include corrective actions taken in response to a finding that documents deviation from the specified BMP.	As performed, at least monthly.
3. Record the handling, monitoring, and disposal of all process liquids, sludges, solids, and hazardous wastes.	As performed

Each O&M Log entry shall include the date and operator's initials.

E. Reporting Requirements	
Required Reporting	Frequency
1. Periodic Compliance Report (PCR) - see Appendix for form -for the reporting period January 1 to June 30	Submit no later than July 31
-for the reporting period July 1 to December 31	Submit no later than January 31
2. Copies of the required Operations and Maintenance (O&M) Logs for the reporting period.	Submit with the PCR
3. Receipts and manifests for off-haul or recycle of all process liquids, sludges, solids, and hazardous wastes during the reporting period.	Submit with the PCR
4. Any discharge analysis data obtained during the reporting period by EPA approved methods.	Submit with the PCR

F. Compliance Sampling and Monitoring Requirements	
Sampling Requirements: ¹	No additional requirements
Monitoring Requirements:	No additional requirements

¹ As specified in District Code Section 10.12.060.C: All samples shall be preserved and analyzed in accordance with the procedures presented the Code of Federal Regulations, Title 40, Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

CONTRA COSTA CANAL

UTILITY CONST. NOTES
 SEWER WATER SERVICE AND TEMPORARY CAP OFF
 CONST. GAS LINE PER MECHAN. PLANS
 CONST. UNDERGR. COND. PER ELECTRICAL PLANS
 CONST. DRAIN. STRUCTURE PER SCHEDULE SHT.1
 REMOVE OR CRUSH IN PLACE
 CONNECT 10" V.C.P. SEWER TO M.H. STUBOUT
 CONNECT LATERAL TO EXIST. SERVICE
 CONST. "East Bay" F.H. & VALVE ASSY. PER C.C.C.F.P.D. STD'S
 WATER METER ASSY. PER C.C.W.O. PERMIT
 INSTALL SCH. 40 DOMESTIC WATER SERVICE PER NOTE
 INSTALL A.D.S. TYPE N-12 STORM DRAIN PIPE PER IND. DIA.
 INSTALL A.D.S. TYPE N-12 STORM DRAIN Tee PER SCHED. SHT. 1
 INSTALL CHRISTY CATCH BASIN PER SCHED. ON SHEET 1
 (13) REMOVE EXIST. S.D. OR ABANDON SERVICE AND FILL WITH SLURRY.
 (14) REMOVE EXIST. UNDERGROUND TREES MUST BE ABAND. AS SURVEYED.
 (15) REMOVE AND REPLACE EXISTING 12" A.C.P. WATERLINE UNDER PROPOSED
 PAVING LOT AS SHOWN. FROST-30" MIN. COVER

G. Facility Diagram/
 Sampling Location/
 Discharge Location

ALIIQUOT
 PLANNERS
 CIVIL ENGINEERS
 SURVEYORS
 125 RYAN IND. CT. STE. 109
 SAN RAMON, CA 94583
 (510) 938-5544
 FAX (510) 938-5557

NO.	DATE	BY	DATE	REVISION
1	10/28/97	REV. CONNECTION FOR 12" S.D.		
2	12/19/97	SD SHIFTED OUT OF PARKING LOT		
3	1/12/98	REV. CHANGED TO DRAINAGE		
4	1/12/98	NEW WATERLINE F.H. & VALVE		
5	4/9/98	WATERING REVISIONS		
6	4/9/98	WATER RISER ADDED		
7	4/10/98	5/8" DRINK RINKING LIFE TIE		
8	4/10/98	WATER RISER ADDED		
9	4/17/98	5/8" DRINK RINKING LIFE TIE		
10	4/17/98	5/8" DRINK RINKING LIFE TIE		

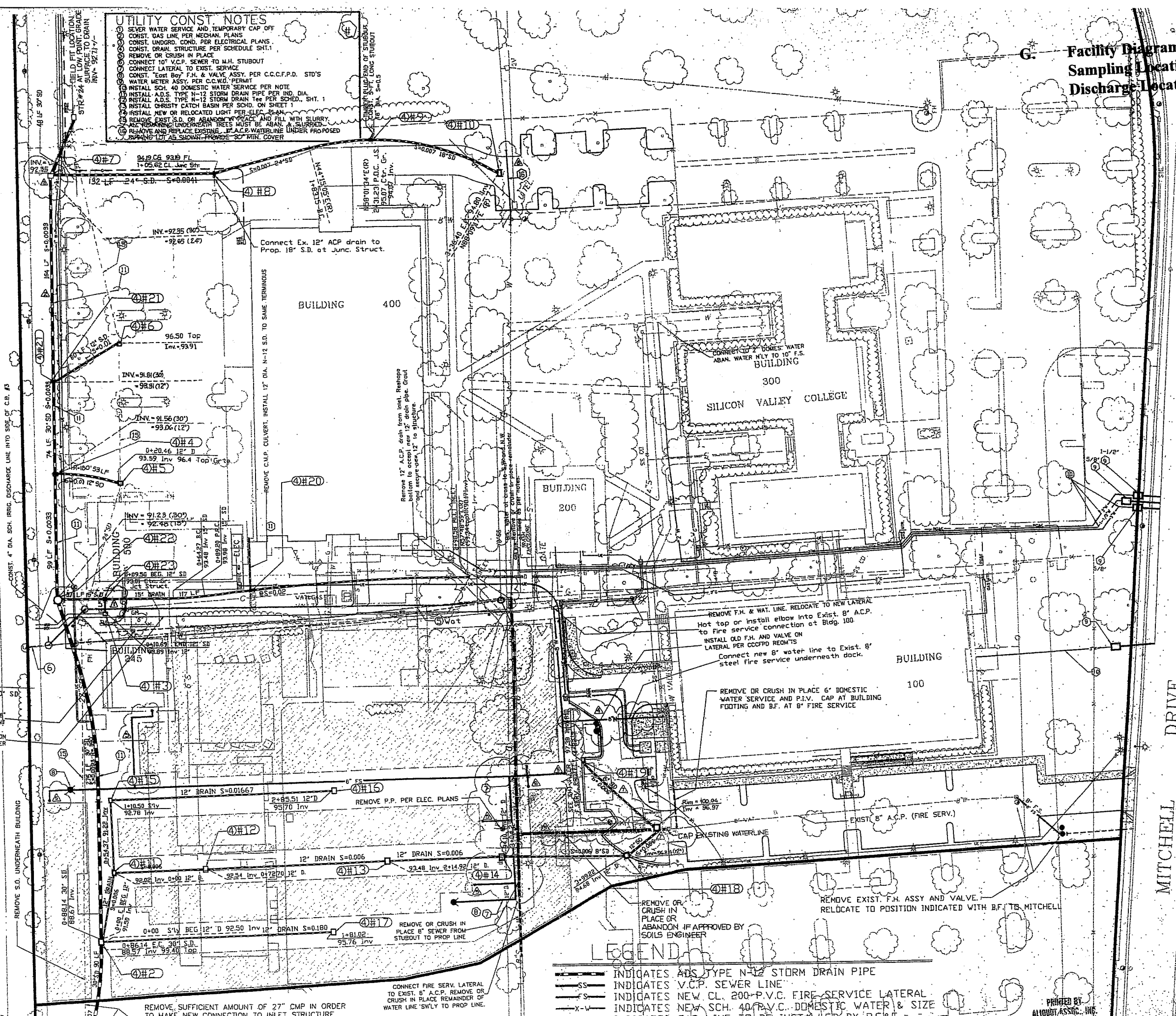
PROFESSIONAL SEAL
 ROBERT C. VONG
 REC. 43748 EXP. 3-31-2001
 CALIFORNIA

UTILITY CONSTRUCTION PLAN
 2800 MITCHELL DRIVE

CONTRA-COSTA COUNTY

WAI NIT, GREEK

97061.0
 1" = 30'
 JUN. 1997
 PREPARED BY
 ALIIQUOT ASSOC., INC.



THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE AGENCIES AND THE CITY PUBLIC WORKS DEPARTMENT AT LEAST 48 HOURS BEFORE ANY EXCAVATION IN THE VICINITY OF UNDERGROUND FACILITIES.

LEGEND
 ——— INDICATES ADS TYPE N-12 STORM DRAIN PIPE
 —SS— INDICATES V.C.P. SEWER LINE
 —FS— INDICATES NEW CL. 200-P.V.C. FIRE SERVICE LATERAL
 —X-W— INDICATES NEW SCH. 40 P.V.C. DOMESTIC WATER & SIZE
 ——— INDICATES GAS LINE TO BE INSTALLED BY P.G.&E.

REMOVE SUFFICIENT AMOUNT OF 27" CMP IN ORDER TO MAKE NEW CONNECTION TO INLET STRUCTURE.

CONNECT FIRE SERV. LATERAL TO EXIST. 8" A.C.P. REMOVE OR CRUSH IN PLACE REMAINDER OF WATER LINE SWLY TO PROP. LINE.

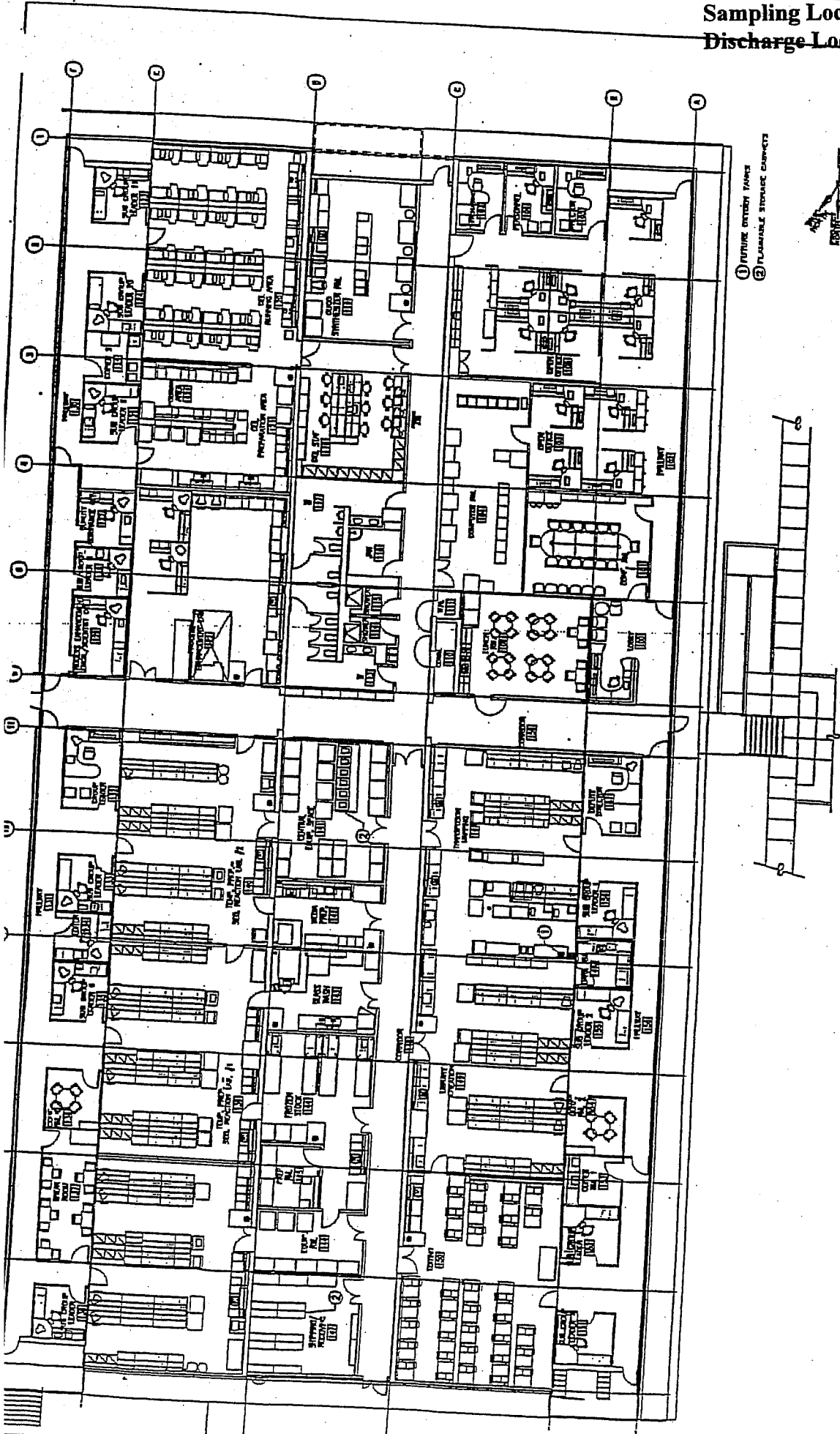
Remove 12" A.C.P. drain from inlet. Release bottom to accept new 12" dia. pipe. Grout and secure new 12" to structure.

REMOVE F.H. & VAL. LINE. RELOCATE TO NEW LATERAL. Hot top or install elbow into exist. 8" A.C.P. to fire service connection at Bldg. 100. INSTALL OLD F.H. AND VALVE ON LATERAL PER C.C.C.F.P.D. REOMTS. Connect new 8" water line to exist. 8" steel fire service underneath dock.

REMOVE OR CRUSH IN PLACE 6" DOMESTIC WATER SERVICE AND P.I.V. CAP AT BUILDING FOOTING AND B.F. AT 8" FIRE SERVICE

REMOVE EXIST. F.H. ASSY AND VALVE. RELOCATE TO POSITION INDICATED WITH B.F. TO MITCHELL

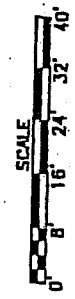
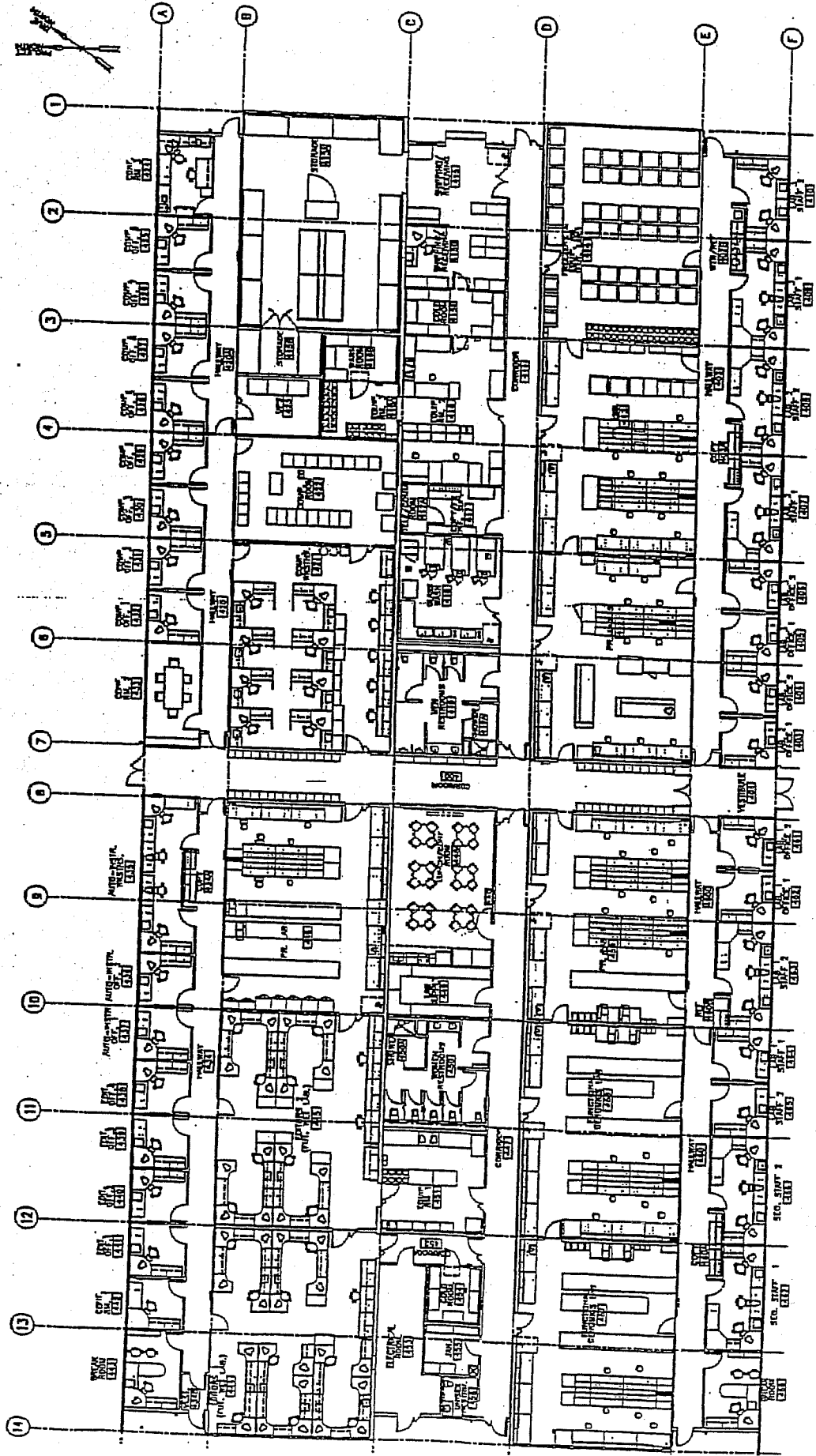
G. Facility Diagram/
 Sampling Location/
 Discharge Location



1 BUILDING 100 FACILITY PLAN
 SCALE: NTS

JOINT GENOME INSTITUTE
 PRODUCTION SEQUENCING FACILITY
 BUILDING 100, 2800 MITCHELL DRIVE
 WALNUT CREEK, CA 94596

G. Facility Diagram/
 Sampling Location/
 Discharge Location



1 BUILDING 400 FACILITY PLAN
 SCALE: NTS

JOINT GENOME INSTITUTE
 PRODUCTION SEQUENCING FACILITY
 BUILDING 400, 2800 MITCHELL DRIVE
 WALNUT CREEK, CA 94596

CENTRAL CONTRA COSTA SANITARY DISTRICT

LOCAL DISCHARGE LIMITS*

Effective July 12, 1991

Pollutant	Discharge Limitation**
Antimony (Sb)	5.00
Arsenic (As)	2.00
Cadmium (Cd)	0.30
Chromium (Cr(T))	1.50
Copper (Cu)	5.00
Lead (Pb)	2.00
Mercury (Hg)	0.05
Nickel (Ni)	3.00
Selenium (Se)	0.30
Silver (Ag)	1.00
Thallium (Tl)	1.50
Zinc (Zn)	5.00
Cyanide (CN)	1.50
Phenol	10.00
pH	5.5 - 12.4 units
Oil & Grease - Mineral	100
Oil & Grease - Animal & Vegetable	300
<u>Total Toxic Organics (TTO) (see reverse for list)</u>	<u>2.10</u>
The following parameters are established in General Discharge Prohibitions of Title 10:	
Radioactivity	Refer to 10CFR20.2003
Closed-Cup Flashpoint (test method 40CFR Part 261.21)	140°F (60°C)
Lower Explosive Limit (LEL)	
2 successive readings	5%
single reading	10%
Temperature	150°F (65°C)
Special Limitations for Groundwater Remediation Projects:	
Benzene, Toluene, Ethylbenzene & Xylene (BTEX)	1.00
Total Petroleum Hydrocarbons (TPH)	10.00

* More stringent limits may apply for industries subject to National Categorical Pretreatment Standards.

** Expressed in mg/L unless otherwise noted.

CCCSD LIST OF TOTAL TOXIC ORGANIC (TTO) POLLUTANTS SUBJECT TO TTO LOCAL LIMIT OR TTO MANAGEMENT PLAN

The District's Local Discharge Limits include a parameter called Total Toxic Organics (TTO) with a limit set at 2.10 mg/L. The EPA has created a list of priority organic pollutants which cumulatively make up the District's TTO parameter. The analysis methods set forth in 40 CFR Part 136, Methods 624, 625, and 608, provide data on the TTO constituents. Method 608 may not always be required. Unless specifically required, Method 1613 for dioxin compounds is not mandatory for routine analysis of TTO constituents. The constituents with concentrations greater than 0.01 mg/L must be added together to determine compliance with the District's Local Discharge Limit for TTO. Following is a list of the constituents of TTO:

METHOD 624	METHOD 625	METHOD 608
Acrolein	Acenaphthene	Hexachlorobutadiene
Acrylonitrile [2-propenenitrile]	Acenaphthylene	Hexachlorocyclopentadiene
Benzene	Anthracene	Hexachloroethane
Bromoform	1,2-Benzanthracene	Indeno(1,2,3-c,d)pyrene
[tribromomethane]	[benzo(a)anthracene]	[2,3-o-phenylene pyrene]
Carbon tetrachloride	Benzidine	Isophorone
[tetrachloromethane]	3,4-Benzofluoranthene	Naphthalene
Chlorobenzene	[benzo(b)fluoranthene]	Nitrobenzene
Chlorodibromomethane	11,12-Benzofluoranthene	2-Nitrophenol
Chloroethane	[benzo(k)fluoranthene]	4-Nitrophenol
2-Chloroethyl vinyl ether	1,12-Benzoperylene	N-Nitrosodimethylamine
(mixed)	[benzo(g,h,i)perylene]	N-Nitroso-di-n-propylamine
Chloroform	3,4-Benzopyrene	N-Nitrosodiphenylamine
[trichloromethane]	[benzo(a)pyrene]	Pentachlorophenol
1,2-Dichlorobenzene	bis(2-Chloroethoxy) methane	Phenanthrene
1,3-Dichlorobenzene	bis(2-Chloroethyl) ether	Pyrene
1,4-Dichlorobenzene	bis(2-Chloroisopropyl) ether	1,2,4-Trichlorobenzene
Dichlorobromomethane	bis(2-Ethylhexyl) phthalate	2,4,6-Trichlorophenol
1,1-Dichloroethane	4-Bromophenyl phenyl ether	METHOD 608
1,2-Dichloroethane	Butyl benzyl phthalate	Aldrin
1,1-Dichloroethylene	4-Chloro-3-methylphenol	Alpha-BHC
1,2-Dichloropropane	[<i>para</i> -chloro- <i>meta</i> -cresol]	Alpha-endosulfan
1,3-Dichloropropylene	2-Chloronaphthalene	Beta-BHC
[1,3-dichloropropene]	2-Chlorophenol	Beta-endosulfan
1,2- <i>trans</i> -Dichloroethylene	4-Chlorophenyl phenyl ether	Chlordane (technical mixture
[1,2- <i>trans</i> -dichloroethene]	Chrysene	and metabolites)
Ethylbenzene	1,2,5,6-Dibenzanthracene	4,4'-DDD [p,p'-TDE]
Methyl bromide	[dibenzo(a,h)anthracene]	4,4'-DDE [p,p'-DDX]
[bromomethane]	3,3'-Dichlorobenzidine	4,4'-DDT [p,p'-DDT]
Methyl chloride	2,4-Dichlorophenol	Delta-BHC
[chloromethane]	Diethyl phthalate	Dieldrin
Methylene chloride	2,4-Dimethylphenol	Endosulfan sulfate
[dichloromethane]	Dimethyl phthalate	Endrin
1,1,1,2-Tetrachloroethane	Di-n-butyl phthalate	Endrin aldehyde
Tetrachloroethylene	4,6-Dinitro- <i>ortho</i> -cresol [4,6-	Gamma-BHC [lindane]
[perchloroethylene,	dinitro-2-methylphenol]	Heptachlor
tetrachloroethene]	2,4-Dinitrophenol	Heptachlor epoxide
Toluene	2,4-Dinitrotoluene	PCB-1016 [Arochlor 1016]
1,1,1-Trichloroethane	2,6-Dinitrotoluene	PCB-1221 [Arochlor 1221]
1,1,2-Trichloroethane	Di-n-octyl phthalate	PCB-1232 [Arochlor 1232]
Trichloroethylene	1,2-Diphenylhydrazine	PCB-1242 [Arochlor 1242]
[Trichloroethene]	Fluoranthene	PCB-1248 [Arochlor 1248]
Vinyl chloride	Fluorene	PCB-1254 [Arochlor 1254]
[Chloroethylene]	Hexachlorobenzene	PCB-1260 [Arochlor 1260]
		Toxaphene



PERIODIC COMPLIANCE REPORT (PCR)

Central Contra Costa Sanitary District • Source Control Section
 5019 Imhoff Place Martinez California 94553-4392 • (925) 229-7288

Industrial Users: Completion of the Periodic Compliance Report (PCR) is required by the Industrial User Permit issued to our facility. Refer to the Appendix of your permit for reporting requirements. When completing this PCR, please address every section below, check all the boxes that apply, and submit all information as required. Record only the information for the reporting period as specified in your permit. Failure to accurately complete this report may result in citation by the District.

INDUSTRIAL USER INFORMATION:

Facility Name:	
Site Address:	
Person completing report: (Name, title, company, phone #)	
Reporting Period:	

A. COMPLIANCE SCHEDULE

- All Compliance Schedule items have been completed as required and documentation has been submitted.
- Attached is a status report of Compliance Schedule items not completed as of the date of this PCR.
- There are no Compliance Schedule requirements in the Appendix of the permit.

B. SPECIAL APPROVALS & CONDITIONS

- I hereby certify that the facility and operations are in compliance with the Special Approvals and Conditions in the Appendix of the permit.
- There are no Special Approvals and Conditions requirements in the Appendix of the permit.

C. CERTIFICATION, REGISTRATION & LICENSES

- A list of certified pretreatment operators is attached as required.
- A copy of the required licenses or registrations is attached.
- There are no Certification, Registration & Licenses requirements in the Appendix of the permit.

D. OPERATION & MAINTENANCE (O&M) LOG REQUIREMENTS

- O&M Logs are maintained on-site as required.
- Copies of O&M Logs are attached as required.
- Submittal of O&M Logs is not required.

E. OTHER REPORTING REQUIREMENTS

Manifests/receipts:

- No process liquids, sludges or solids, or hazardous wastes were off-hauled or recycled during the reporting period.
- Copies of the manifests/receipts for off-haul of process liquids, sludges or solids, or hazardous wastes are attached as required.
- Records are maintained on-site; submittal is not required.

Production data for the dates of sampling:

- Production data is attached as required.
- Submittal of production data is not required.

Flow monitoring data for the dates of sampling:

- Process discharge flow meter totalizer readings as required:
Start _____ End _____
- Process water meter totalizer readings as required:
Start _____ End _____
- Flow meter readings not required.

For Source Control use only

Date Received:	Reviewed by:	Date Reviewed:
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COMPLIANCE SAMPLING AND MONITORING

Compliance Sampling Information: (for multiple days of sampling attach an additional sheet)

- Compliance sampling is not required
- The original analysis reports and chain of custody are attached. The report includes: laboratory name, address and telephone number; reporting limits; units; QA/QC data; and the date and time of all grab samples.

Sampling performed by: (name, company, phone no)	
Sampling locations & wastestreams sampled:	
Sampling start date/time:	Sampling end date/time:

Monitoring Information:

- pH recorder tape/chart: attached as required maintained on-site pH monitoring not required
- Flow recorder tape/chart: attached as required maintained on-site flow monitoring not required

Compliance Status:

- All analytical and/or monitoring results are within applicable local / federal limits.
- Analytical and/or monitoring results indicate violation(s) of applicable federal or local limits. A separate sheet is attached listing the violations, the reasons for the violations, and a description of corrective actions taken.

Total Toxic Organics (TTO) Certification

(Only for Industrial Users certifying in lieu of monitoring for TTO. Approved TTO Management Plan required.)

Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation and/or pretreatment standard for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the public sewer system has occurred since the filing of the last compliance report. I further certify that this facility is implementing the TTO Management Plan submitted to, and approved by, the Central Contra Costa Sanitary District.

Signature

Title & Company

Date

CERTIFICATION

(Required for all PCR Submittals)

All required sampling reported herein was conducted in accordance with the methods specified in the Industrial User permit for this facility. Samples were analyzed by a laboratory certified by the State of California for wastewater analysis by the methods reported. All analytical results obtained during the reporting period by EPA-approved methods, including those not required in the Industrial User permit, are included with this report. Production levels and process flows for the reporting period were typical for this facility. I have already reported to the District any changes (permanent or temporary) to the premises, processes, chemical usage, wastewater treatment, and/or operations that have the potential for changing the quality, volume, or location of the wastewater discharge of that may otherwise lead to deviation from the terms and conditions of the CCCSD Industrial User Permit. Any deviations from the above are explained on an attached sheet.

I certify under penalty of perjury that this document and all attachments were prepared under my direction or supervision and in accordance with the system designed to insure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manages the system, or those directly responsible for gathering the 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 knowingly submitting false information, including the possibility of fine and/or imprisonment for knowing violations.

Signature

Title & Company

Date

Compliance Sampling and Analysis Program: Information for Industrial Users

If required, the Industrial User shall administer a satisfactory wastewater compliance sampling and analysis program that provides for the sampling and analysis of the constituents referenced in Appendix Section G. Proper sampling, sample handling, and preservation techniques shall be employed at all times during the compliance sampling. The compliance sampling and analysis program shall meet the following requirements.

A. Sampling Requirements:

1. **Constituents and Location:** The Industrial User shall conduct compliance sampling and analysis throughout the sampling period for all applicable constituents according to the schedule and at the locations specified by the District. Compliance sampling shall be scheduled to coincide with any batch treatment and/or discharge of process solutions. All samples shall be representative of the process waste stream to the extent practicable.
2. **Alternative Sampling Program:** The Industrial User shall submit any alternative compliance sampling and analysis program to the District for review and approval prior to initiating said program.
3. **Notification of Sampling:** The Industrial User shall notify the District's Source Control Section at (925) 229-7288 at least five working days prior to each compliance sampling event so that a District representative may be present to witness the event. Alternatively, the Industrial User may conduct its compliance sampling on an established schedule. The Industrial User shall submit a copy of the schedule in advance of implementation. The Industrial User shall notify the District of any changes to the schedule in accordance with the above.

B. Sampling Methods: The following definitions apply to collection procedures for all required sampling activities:

1. **Composite Sample:** A collection of individual samples obtained throughout the entire sampling period. Individual samples shall be taken at an average frequency of at least one sample each hour and shall be combined to form a composite sample.
 - i. **Time proportional:** Samples of equal volume collected at regular intervals of at least once each hour regardless of flow.
 - ii. **Flow proportional:** The volume of each individual sample is proportional to the rate of flow at the time the sample was collected, or individual samples of equal volume are collected at intervals determined by a specific volume of flow passing the sampling point.
2. **Grab Sample:** A sample collected at a particular place and at a time coinciding with full process activity that is representative of the wastestream at that place and time.
 - i. **Composite grab:** A sample consisting of at least four (4) grab samples taken during the entire sampling period. Each grab sample shall be appropriately preserved immediately after collection. (See Section V.C.1. of the permit). Individually preserved grab samples may be composited prior to analysis. Samples taken for Volatile Organics Analysis (VOA), if required, shall be composited by the contracted laboratory prior to analysis.
 - ii. **Cross-sectional grab:** A grab sample that is representative of the entire contents of a tank or container. This sample shall be collected using a technique that takes a cross section of sample from the entire depth of the tank or container.

C. Sample Preservation and Analysis:

1. **Sample Handling:** All samples shall be handled and preserved in accordance with Standard Methods for the Examination of Water and Wastewater (latest edition). Samples shall be delivered to the laboratory for analysis no later than the next working day following completion of the sampling activities. Under no circumstances shall the maximum holding time be exceeded.
2. **Certified Laboratory:** The laboratory selected to perform the analysis must be certified by the State of California Department of Health Services for wastewater analyses. The laboratory's certification number shall be included with each PCR submitted to the District.
3. **Special Analysis Requirements:**
 - a. **Oil and Grease:** For Industrial Users required to sample for total oil and grease, the laboratory shall analyze the extracted oil and grease to determine the concentration of hydrocarbons of petroleum (mineral) origin if the analysis of total oil and grease exceeds 100 mg/L.
 - b. **Photoprocessing Wastes:** For Industrial Users required to conduct sampling of the discharge from photoprocessing units, the analysis for Silver shall be performed on an unpreserved and undigested sample. The industrial User shall also instruct the contract laboratory to perform a silver spike-recovery test on the photoprocessing sample.

D. Reporting:

1. **PCR:** The Industrial User shall submit a completed Periodic Compliance Report (PCR) for each reporting period by the due date specified by the District. The completed PCR shall include the original analysis reports and chain of custody documents.

The Industrial User may request an extension of the due date for the submittal of the PCR provided that the extension is requested prior to the due date. Facsimile submittal of a completed PCR by the due date will be accepted provided that the original PCR is received within five working days of the facsimile submittal.

2. **Process flow data:** The Industrial User shall include with the PCR flow data for the regulated process discharges for the days in which the compliance sampling was conducted. The flow data for the process discharge shall be obtained from one of the following:
 - a. A totalizing discharge flow meter, if required (see permit Appendix);
 - b. A process water supply meter, if required (see permit Appendix);
 - c. A process water usage estimate. The Industrial User shall describe the method of estimation in the PCR.

Approved Wastewater Methods and Holding Times for CCCSD Required Parameters

Constituent	US EPA Approved Methods (40 CFR 136)	Holding Time (Preserved)
Antimony (Sb)*	204.1 (flame AA); 204.2 (furnace AA); 200.7 (ICP)	6 months
Arsenic (As)*	206.3 (hydride AA); 206.2 (furnace AA); 200.7 (ICP)	6 months
Cadmium (Cd)*	213.1 (flame AA); 213.2 (furnace AA); 200.7 (ICP)	6 months
Chromium (Cr)*, Total	218.1 (flame AA); 218.2 (furnace AA); 200.7 (ICP)	6 months
Copper (Cu)*	220.1 (flame AA); 220.2 (furnace AA); 200.7 (ICP)	6 months
Lead (Pb)*	239.1 (flame AA); 239.2 (furnace AA); 200.7 (ICP)	6 months
Mercury (Hg)*	245.1 or 245.2 (cold vapor AA)	28 days
Nickel (Ni)*	249.1 (flame AA); 249.2 (furnace AA); 200.7 (ICP)	6 months
Selenium (Se)*	270.3 (hydride AA); 270.2 (furnace AA); 200.7 (ICP)	6 months
Silver (Ag)*	272.1 (flame AA); 272.2 (furnace AA); 200.7 (ICP)	6 months
Thallium (Tl)*	279.1 (flame AA); 279.2 (furnace AA); 200.7 (ICP)	6 months
Zinc (Zn)*	289.1 (flame AA); 289.2 (furnace AA); 200.7 (ICP)	6 months
Phenol**	420.1 or 420.2 (colorimetric)	28 days
Total Toxic Organics (TTO)***	624 (gas chromatography/mass spectrography)	14 days
	625 (gas chromatography/mass spectrography)	47 days
	608 (gas chromatography/mass spectrography)	47 days
Oil & Grease (mineral)	413.1 or 1664 (gravimetric; Std Methods 5520 B and D)	28 days
Oil & Grease (animal/vegetable)	413.1 or 1664 (gravimetric; Std Methods 5520 B and D)	28 days
Biochemical Oxygen Demand (BOD)	405.1 (dissolved oxygen depletion)	48 hours
Total Suspended Solids (TSS)	160.2 (gravimetric nonfilterable residue)	7 days
Total Dissolved Solids (TDS)	160.1 (gravimetric filterable residue)	7 days
Cyanide**	335.2 or 335.3 (colorimetric)	14 days
pH	150.1 (glass electrode meter)	ASAP
Radioactivity	900 (proportional or scintillation counter)	6 months
Organophosphate Pesticides (Diazinon, etc.)	614 (gas chromatography)	1 year
Tributyltin	None specified (CCCSD uses gas chromatography/mass spectrography)	None stated
Sulfide	376.1 (titrimetric) or 376.2 (colorimetric)	7 days
Dioxin (TCDD)	1613 (gas chromatography/mass spectrography)	1 year
Total Petroleum Hydrocarbons (TPH)	None specified-CCCSD uses 8015 (gas chromatography)	14 days
BTEX (including MTBE)	602 (gas chromatography)	14 days
Notes:		
*initial digestion required		
**initial distillation required		
***TTO includes the EPA list of organic priority pollutants itemized under EPA methods 624, 625, and 608 on a separate table. Check permit to see which methods apply.		

Alternate methods may be substituted if approved by EPA specifically for wastewater.

**National Categorical Pretreatment Standards:
Information for Industrial Users**

The U.S. Environmental Protection Agency (EPA) has implemented National Pretreatment Standards which require the District to control the discharge of pollutants from non-domestic sources to its treatment plant. As part of these regulations, EPA has identified specific operations which are subject to regulations known as National Categorical Pretreatment Standards (Categorical Standards). These Categorical Standards establish limits for pollutants discharged to the sanitary sewer. In addition to the Categorical Standard, all other local, state and federal pretreatment standards apply.

An industry subject to a Categorical Standard is required by federal regulations and District Code to do the following:

- Notify the District if the facility conducts or intends to conduct any operation subject to a Categorical Standard.
- Submit a Baseline Monitoring Report (BMR) to the District for the operations covered by the Categorical Standard.
- Obtain an Industrial User Permit from the District for the process subject to the Categorical Standard. This permit may require:
 - sampling and analysis of the process discharge
 - periodic compliance reports

District Source Control staff are available to help you determine whether your operations are subject to Categorical Standards. Please contact the District Source Control Section at (510) 229-7288.

The following operations are subject to Categorical Standards.

<u>SECTION</u>	<u>DESCRIPTION</u>	<u>SECTION</u>	<u>DESCRIPTION</u>
40 CFR 405	Dairy Products Processing	40 CFR 428	Rubber Manufacturing Point Source
40 CFR 406	Grain Mills	40 CFR 429	Timber Products Processing
40 CFR 407	Canned and Preserved Fruits and Vegetables Processing	40 CFR 430	Pulp, Paper, and Paperboard
40 CFR 408	Canned and Preserved Seafood Processing	40 CFR 431	The Builder's Paper and Board Mills
40 CFR 409	Sugar Processing	40 CFR 432	Meat Products
40 CFR 410	Textile Mills	40 CFR 433	Metal Finishing (see page 2 for process descriptions)
40 CFR 411	Cement Manufacturing	40 CFR 439	Pharmaceutical Manufacturing
40 CFR 412	Feedlots	40 CFR 455	Pesticide Chemicals Manufacturing
40 CFR 413	Electroplating	40 CFR 443	Paving and Roofing Materials
40 CFR 414	Organic Chemicals, Plastics, and Synthetic Fibers	40 CFR 465	Coil Coating
40 CFR 415	Inorganic Chemicals Manufacturing	40 CFR 446	Paint Formulating
40 CFR 417	Soap and Detergent Manufacturing	40 CFR 466	Porcelain Enameling
40 CFR 418	Fertilizer Manufacturing	40 CFR 447	Ink Formulating
40 CFR 419	Petroleum Refining	40 CFR 467	Aluminum Forming
40 CFR 420	Iron and Steel Manufacturing	40 CFR 458	Carbon Black Manufacturing
40 CFR 421	Nonferrous Metals Manufacturing	40 CFR 468	Copper Forming
40 CFR 423	Steam Electric Power Generating	40 CFR 461	Battery Manufacturing
40 CFR 424	Ferroalloy Manufacturing	40 CFR 469	Electrical and Electronic Components
40 CFR 425	Leather Tanning and Finishing	40 CFR 463	Plastics Molding and Forming
40 CFR 426	Glass Manufacturing	40 CFR 471	Nonferrous Metals Forming and Metal Powders
40 CFR 427	Asbestos Manufacturing	40 CFR 464	Metal Molding and Casting

40 CFR 433 Metal Finishing Point Source Category Description of Applicable Operations

If any of the following six operations are conducted at the facility, then this Categorical Standard (40 CFR 433) applies.

1. Electroplating
2. Electroless Plating
3. Anodizing
4. Coating
5. Chemical Etching and Milling
6. Printed Circuit Board Manufacturing

If any of the above operations are conducted at the facility, this Categorical Standard applies to those operations and to discharges from any of the following ancillary operations:

- Cleaning
- Machining
- Grinding
- Polishing
- Tumbling
- Burnishing
- Impact Deformation
- Pressure Deformation
- Shearing
- Heat Treating
- Thermal Cutting
- Ultrasonic Machining
- Laminating
- Sputtering
- Thermal Infusion
- Solvent Degreasing
- Painting
- Electropainting
- Assembly
- Testing
- Welding
- Brazing
- Soldering
- Flame Spraying
- Sand Blasting
- Other Abrasive Jet Machining
- Electric Discharge Machining
- Electrochemical Machining
- Electron Beam Machining
- Laser Beam Machining
- Plasma Arc Machining
- Sintering
- Hot Dip Coating
- Vapor Plating
- Salt Bath Descaling
- Paint Stripping
- Electrostatic Painting
- Vacuum Metalizing
- Calibration
- Mechanical Plating