

ENCINA WASTEWATER AUTHORITY

SOURCE CONTROL PROGRAM



PERMIT GUIDANCE MANUAL

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INTRODUCTION

This manual is intended as a guidance document for Users seeking to discharge industrial wastewater to the Encina Wastewater Authority (EWA) Sewerage System. It explains the Source Control Program developed by the EWA to comply with Federal and State regulations.

ENCINA SEWERAGE SYSTEM

The EWA is a joint powers agency providing wastewater treatment and disposal for the Cities of Carlsbad, Encinitas, and Vista, the Buena Sanitation District (BSD), the Leucadia Wastewater District (LWD), and the Vallecitos Water District (VWD). These six agencies are collectively known as the EWA member agencies. Their collection systems and treatment plants comprise the Encina Sewerage System (ESS).

Most of the wastewater in the service area is conveyed to the Encina Water Pollution Control Facility (EWPCF), a regional wastewater plant that serves as the final point of treatment prior to discharge into the Pacific Ocean. The EWPCF is located at 6200 Avenida Encinas in the City of Carlsbad. It is owned by the member agencies and operated by EWA 24 hours/day to meet the exacting requirements of its federally mandated National Pollutant Discharge Elimination Systems (NPDES) permit. It provides full secondary treatment for approximately 26 million gallons per day (MGD) of wastewater and routinely achieves greater than 95% removal of conventional pollutants. The treated secondary effluent is discharged to the Pacific Ocean via an ocean outfall pipe that is approximately 1.5 miles long and 165 feet deep at its terminus. Solids generated as a byproduct of the treatment process are disposed in conformance with 40 CFR Part 503 Biosolids Regulations and meet quality standards for land application.

A smaller portion of the collected wastewater is conveyed to three separate reclamation plants for treatment and reuse: the Gafner Water Reclamation Plant (WRP), owned and operated by LWD; the Meadowlark WRP, owned and operated by VWD; and the Carlsbad WRP, owned by Carlsbad and operated by EWA. The Meadowlark, Gafner, and Carlsbad WRPs are tertiary treatment plants. The rated capacities of these three plants are 5 MGD, 0.75 MGD and 4.0 MGD, respectively. Wastewater discharged from these plants is used for irrigation and must meet water quality standards mandated by the State of California for this purpose.

PURPOSE OF THE SOURCE CONTROL PROGRAM

The purpose of the Source Control Program is to prevent the introduction of pollutants into the ESS that would: interfere with the operation of its treatment facilities; pass through into the receiving waters; prevent our ability to recycle, reclaim and/or reuse wastewater treatment byproducts; and/or jeopardize the safety and well-being of treatment plant and collection systems personnel. In addition, the program ensures that EWA stays in compliance with State of California regulations and EPA-mandated national pretreatment standards and regulations.

PROGRAM AUTHORITY

Federal regulations initially published in June of 1978 and revised in January of 1981, establish the responsibility of governmental agencies, industry and the public to implement National Pretreatment Standards to control the introduction of pollutants into Publicly Owned Treatment Works (POTWs). These regulations implement the requirements of the 1972 Federal Water Pollution Control Act (P.L. 92-500) as amended by the 1977 Clean Water Act (P.L. 95-217) and the 1987 Water Quality Act (P.L. 100-4).

In California, the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) have been delegated responsibility for ensuring that public agencies enforce pretreatment standards and requirements. As such, EWA's NPDES permit (issued by the San Diego RWQCB) requires implementation of a pretreatment program. Accordingly, EWA has adopted a Pretreatment Ordinance which: identifies and defines prohibited wastes; requires industries to submit permit applications and obtain discharge permits; requires access to industries for sampling and inspection; requires pretreatment of wastes to meet federal and local discharge limits; and authorizes fines and penalties for noncompliance with discharge limits and other permit conditions.

PERMITTING PROCESS

1. Permit Application

Industries, which conduct operations subject to federal regulation or have the potential to impact the ESS, are required to apply for a permit. Residential users and most commercial users, such as offices and retail businesses, are exempt. Appendix A contains a list of businesses that are not required to obtain a permit. Appendix B contains a list of industries subject to Federal Categorical Standards. If your business does not appear on either list, you should check with EWA's Source Control Program to determine if you need to apply for a permit. Permit applications can be obtained at the address below or on EWA's website. Businesses with federally regulated processes should submit a completed application 90 days prior to the start of operations. For help completing the application or to obtain additional program information contact :

Encina Wastewater Authority
Source Control Program
6200 Avenida Encinas
Carlsbad, CA 92011
Telephone: (760) 438-3941
Website: www.encinajpa.com

2. Facility Inspection

After the completed permit application is received, a facility inspection is scheduled which consists of: an interview with industry personnel, a tour of the facility, and a review of records. During the interview, the industry's application, waste generating processes, wastewater composition, and volume of wastewater discharge are reviewed. The plant tour will include an inspection of the entire facility, focusing primarily on operations generating wastewater, pretreatment facilities, and chemical/hazardous waste storage areas. An important part of the tour is the identification of a sampling location(s) that will be used to monitor compliance with

discharge limits. It is the industry's responsibility to provide an accessible and representative sampling location. Following the tour, EWA personnel will review records including things such as hazardous waste manifests, Material Safety Data Sheets, and pretreatment system operations/maintenance logs.

3. Permit Issuance

The investigator's inspection report, together with the completed permit application, form the basis for assigning a permit class and for establishing permit discharge limits and conditions. Industries are categorized, according to the nature of their discharge, into one of four EWA defined permit categories:

- Class I - industries which conduct operations subject to Federal Categorical Pretreatment Standards. (An individual User may request written certification from the EPA as to whether or not they should be classed as a Federal Categorical industry.)
- Class II - industries which discharge >25,000 GPD of industrial wastewater or have a significant potential to impact the ESS.
- Class III - industries which conduct operations subject to Federal Categorical Pretreatment Standards, but which meet one of the following criteria: do not discharge any industrial wastewater, are a stand-alone R&D facility, or qualify as a Non-Significant Categorical Industrial User (never discharge more the 100 GPD of industrial wastewater, never discharge concentrated baths, and have demonstrated compliance with applicable discharge standards); or industries with the potential to violate any Pretreatment standard or requirement.
- NSWDC (Non-Significant Wastewater Discharge) Form – commercial businesses that implement Best Management Practices to reduce pollutants.

Wastewater Discharge Permits are issued for a specified period of time not to exceed five years. They define discharge prohibitions, limitations, self-monitoring requirements, and the User's legal obligations. Non-compliance with any discharge limits or permit conditions may result in enforcement.

There are two types of numeric discharge limits which may be included in the permit: local limits, which are imposed to protect the POTW, and federal limits that apply to Federal Categorical industries. (EWA's local limits are shown in Appendix C.) When there are both local and federal limits for a particular pollutant, both limits are enforced. Discharge limits are expressed either as a concentration or a mass limit. Mass limits are calculated by multiplying the concentration times the flow times a conversion factor. Appendix D contains EPA's list of Priority Pollutants. For certain industrial categories, EPA has grouped some of the organic compounds to provide a single discharge limitation. These groups are called Total Toxic Organics (TTOs).

In addition to the numeric limits imposed for specific pollutants, there are Prohibited Wastes that may not, under any circumstance, be discharged to the ESS. For a list of Prohibited Wastes, see Appendix E. Industries may be required to treat their wastes before discharging to the ESS if they contain pollutants in excess of any federal or local discharge limit or contain any prohibited wastes.

The member agency in which an industry is located may also require the industry to obtain a Connection Permit authorizing discharge to the ESS. The member agency will issue this permit

concurrently with EWA's wastewater discharge permit based upon the information submitted in the wastewater discharge permit application. The validity of one permit is conditioned upon the validity of the other. In addition, the member agency may require payment of permit fees and/or other fees at that time. Check with the member agency representative in the area where you are located to determine if there are additional fees or requirements.

City of Carlsbad

Cari Dale
Carlsbad Municipal Water District
1635 Faraday Avenue
Carlsbad, CA 92008
(760) 438-2722, ext. 7107

City of Encinitas

Bill Wilson
City of Encinitas
505 S. Vulcan Avenue
Encinitas, CA 92024
(760) 633-2846

Leucadia Wastewater District

Frank Reynaga
Leucadia Wastewater District
1960 La Costa Avenue
Carlsbad, CA 92009
(760) 753-0155, ext. 3002

Vallecitos Water District

Cheryl Brandstrom
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069
(760) 744-0460, ext. 232

City of Vista/Buena Sanitation District

Roger Brenzel
City of Vista
600 Eucalyptus Avenue
Vista, CA 92083
(760) 726-1340, ext. 1374

4. Monitoring

Most permits have provisions for "self-monitoring" which means that the industry must sample its own discharge and have it analyzed by a State-certified laboratory. (Contact EWA's Source Control Program or ELAP directly to obtain a list of certified labs.) EWA will also periodically sample an industry's discharge to determine compliance with the appropriate limits. This sampling may be done with or without prior notice. Samples collected by EWA are analyzed by their own lab (located at the EWPCF), which is certified by the State of California Department of Health Services.

SPECIAL USE PERMITS

In addition to the above four classes of permits, EWA currently issues Special Use Permits (SUPs) under limited circumstances to dischargers of ground water, surface runoff, brine and septage. SUPs are granted only for wastewater generated within the EWA service area. With the exception of septage, all other permittees must demonstrate that no alternative method of disposal is reasonably available and that the discharge is necessary to mitigate an environmental risk or health hazard. SUPs for the disposal of septage are issued for one-year periods.

ADDITIONAL SOURCES OF INFORMATION

California Regional Water Quality Control Board
San Diego Region
9174 Skypark Ct.
San Diego, California 92123
Telephone: (858) 467-2952

California Water Resources Control Board
Division of Water Quality – Pretreatment Unit
P.O. Box 100
Sacramento, California 95812-0100
Telephone: (916) 341-5455

EPA Region IX
(CA, NV, AZ, HI)
Enforcement Division
Environmental Protection Agency
75 Hawthorne St.
San Francisco, California 94105
Telephone: (415) 744-1900

U.S. E.P.A.
Ariel Rios Building
EAD – 4303
Room 611 – West Tower
1200 Pennsylvania Ave
Washington, D.C. 20460
Telephone: (202) 260-7120

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, Virginia 22161
Telephone: (800) 553-6847

State of California
Department of Health Services
Environmental Laboratory Accreditation Program (ELAP)
850 Marina Bay Parkway, Bldg. P, 1st Floor, MS 0511
Richmond, CA 94804
Phone (510) 620-3155

APPENDIX A

DISCHARGE PERMIT EXEMPT LIST

The commercial enterprises listed below are a partial listing of businesses that are exempt from industrial wastewater discharge permitting under normal operating conditions. They are exempt because (a) they discharge **no process wastewater** (i.e., they only discharge sanitary wastewater with no pollutants exceeding any local limits), and (b) they have no potential to negatively impact the EWPCF or other wastewater treatment plants in the ESS. Any questions regarding exemptions should be referred to EWA Source Control staff.

- Automobile Detailers
- Barber/Beauty Shops
- Business/Sales Offices
- Carpet/Upholstery Cleaning Services
- Childcare Facilities
- Churches
- Community Centers
- Consulting Services
- Contractors
- Counseling Services
- Educational Services (no auto repair/film developing)
- Financial Institutions/Services
- Fitness Centers
- Gas Stations (no car wash/auto repair)
- Grocery Stores (no film developing)
- Home-based Businesses
- Hotels/Motels (no laundry)
- Laundromats
- Libraries
- Medical Offices (no x-ray developing)
- Mortuaries
- Museums
- Nail Salons
- Nursing Homes
- Office Buildings (no process flow)
- Optical Services
- Pest Control Services (no pesticide repackaging for sale)
- Pet Boarding/Grooming Facilities
- Postal Services
- Public Storage Facilities
- Restaurants/Bars
- Retail/Wholesale Stores (no auto repair/film developing)
- Theaters (Movie/Live)

APPENDIX B

INDUSTRIAL CATEGORIES SUBJECT TO EPA CATEGORICAL PRETREATMENT STANDARDS

Aluminum Forming	40 CFR Part 467
Battery Manufacturing	40 CFR Part 461
Carbon Black Manufacturing	40 CFR Part 458
Cement Manufacturing	40 CFR Part 411
Centralized Waste Treatment Facilities	40 CFR Part 437
Coil Coating/Can Making	40 CFR Part 465
Concentrated Animal Feeding Operations	40 CFR Part 412
Copper Forming	40 CFR Part 468
Dairy Products Processing	40 CFR Part 405
Electrical & Electronic Components Manufacturing	40 CFR Part 469
Electroplating	40 CFR Part 413
Feed Lots	40 CFR Part 412
Ferroalloy Manufacturing	40 CFR Part 424
Fertilizer Manufacturing	40 CFR Part 418
Fruits & Vegetables Processing	40 CFR Part 407
Glass Manufacturing	40 CFR Part 426
Grain Mills	40 CFR Part 406
Gum & Wood Chemicals Manufacturing	40 CFR Part 454
Ink Formulating	40 CFR Part 447
Inorganic Chemicals Manufacturing	40 CFR Part 415
Iron & Steel Manufacturing	40 CFR Part 420
Leather Tanning & Finishing	40 CFR Part 425
Meat Processing	40 CFR Part 432
Metal Finishing	40 CFR Part 433
Metal Molding & Casting	40 CFR Part 464
Metal Products & Machinery Mfg./Maintenance	40 CFR Part 438
Nonferrous Metals Forming & Metal Powders	40 CFR Part 471
Nonferrous Metals Manufacturing	40 CFR Part 421
Organic Chemicals, Plastics & Synthetic Fibers Mfg.	40 CFR Part 414
Paint Formulating	40 CFR Part 446
Paving & Roofing Materials Manufacturing	40 CFR Part 443
Pesticide Mfg./Formulation/Packaging/Repackaging	40 CFR Part 455
Pharmaceutical Manufacturing	40 CFR Part 439
Phosphate Manufacturing	40 CFR Part 422
Plastics Molding & Forming	40 CFR Part 463
Porcelain Enameling	40 CFR Part 466
Pulp, Paper, and Paperboard Manufacturing	40 CFR Part 430
Rubber Processing	40 CFR Part 428
Seafood Processing	40 CFR Part 408
Soap & Detergent Manufacturing	40 CFR Part 417
Steam Electric Power Generation	40 CFR Part 423
Textile Mills	40 CFR Part 410
Timber Products Processing	40 CFR Part 429
Transportation Equipment Cleaning	40 CFR Part 442
Waste Combustors	40 CFR Part 444

APPENDIX C
EWA LOCAL LIMITS

CONSTITUENT	LIMIT
Cadmium	0.43 mg/L
Chromium	3.50 mg/L
Copper	4.40 mg/L
Lead	1.80 mg/L
Nickel	1.80 mg/L
Silver	4.20 mg/L
Zinc	6.20 mg/L
BOD (biochemical oxygen demand)	500 lb/day
CBOD (carbonaceous BOD)	500 lb/day
TSS (total suspended solids)	500 lb/day
TTO (Total Toxic Organics)	2.00 mg/L
Oil & Grease	400 mg/L
pH	5.5 – 11.0
Temperature	140° F

APPENDIX D

EPA PRIORITY POLLUTANTS

Asbestos (fibrous)	Carbon tetrachloride	Endrin aldehyde
Cyanide (total)	Chlordane	Ethylbenzene
Antimony (total)	4-chloro-3-methylphenol	Fluoranthene
Arsenic (total)	Chlorobenzene	Fluorene
Beryllium (total)	Chloroethane	Heptachlor
Cadmium (total)	2-chloroethyl vinyl ether	Heptachlor epoxide
Chromium (total)	Chloroform	Hexachlorobenzene
Copper (total)	Chloromethane	Hexachlorobutadiene
Lead (total)	2-chloronaphthalene	Hexachlorocyclopentadiene
Mercury (total)	2-chlorophenol	Hexachloroethane
Nickel (total)	4-chlorophenyl phenyl ether	Indeno (1,2,3-c,d) pyrene
Selenium (total)	Chrysene	Isophorone
Silver (total)	4,4'-DDD	Methylene chloride
Thallium (total)	4,4'-DDE	Naphthalene
Zinc (total)	4,4'-DDT	Nitrobenzene
Acenaphthene	Dibenzo (a,b) anthracene	2-nitrophenol
Acenaphthylene	Dibromochloromethane	4-nitrophenol
Acrolein	1,2-dichlorobenzene	n-nitrosodimethylamine
Acrylonitrile	1,3-dichlorobenzene	n-nitrosodi-n-propylamine
Aldrin	1,4-dichlorobenzene	n-nitrosodiphenylamine
Anthracene	3,3'-dichlorobenzidine	PCB-1016
Benzene	1,1-dichloroethane	PCB-1221
Benidide	1,2-dichloroethane	PCB-1232
Benzo (a) anthracene	1,1-dichloroethylene	PCB-1242
Benzo (b) fluoroanthene	1,2-trans-dichloroethylene	PCB-1248
Benzo (k) fluoroanthene	2,4-dichlorophenol	PCB-1254
Benzo (g,h,i) perylene	1,2-dichloropropane	PCB-1260
Benzo (a) pyrene	1,3-dichloropropylene	Pentachlorophenol
a-BHC (alpha)	Dieldrin	Phenanthrene
b-BHC (beta)	Diethyl phthalate	Phenol
d-BHC (delta)	2,4-dimethyl phenol	Pyrene
g-BHC (gamma)	Dimethyl phthalate	2,3,7,8-tetrachlorodibenzo-p-dioxin
Bis (2-chloroethyl) ether	di-n-butyl phthalate	1,1,2,2-tetrachloroethane
Bis (2-chloroethoxy) methane	di-n-octyl phthalate	Tetrachloroethylene
Bis (2-chloroisopropyl) ether	4,6-dinitro-o-cresol	Toluene
Bis (chloromethyl) ether	2,4-dinitrophenol	Toxaphene
Bis (2-ethylhexyl) phthalate	2,4-dinitrotoluene	1,2,4-trichlorobenzene
Bromodichloromethane	2,6-dinitrotoluene	1,1,1-trichloroethane
Bromoform	1,2-diphenylhydrazine	1,1,2-trichloroethane
Bromomethane	a-endosulfan (alpha)	Trichloroethylene
4-bromophenyl phenyl ether	b-endosulfan (beta)	2,4,6-trichlorophenol
Butyl benzyl phthalate	Endosulfan sulfate	Vinyl chloride
	Endrin	

APPENDIX E

PROHIBITED DISCHARGES

1. Pollutants which create a hazard of fire or explosion in the Encina Sewerage System including, but not limited to, wastestreams with a closed cup flashpoint of less than 140° F (60° C) using the test methods specified in 40 C.F.R. Section 261.21.
2. Pollutants which will cause corrosive structural damage to any component of the Encina Sewerage System but in no case discharges with a pH lower than 5.5.
3. Solid or viscous pollutants in amounts which will cause obstruction of the flow in the Encina Sewerage System resulting in Interference or damage to the Encina Sewerage System.
4. Wastewater having a temperature that will inhibit biological activity in the treatment process resulting in interference but in no case wastewater that causes the temperature at any component of the Encina Sewerage System to exceed 40° C (104° F).
5. Pollutants which cause danger to life, health or safety of any person, or cause damage to the environment.
6. Pollutants, including oxygen-demanding pollutants such as BOD, released in a discharge at a flow rate and/or concentration which, either singly or by interaction with other pollutants, cause interference or pass-through.
7. Petroleum oil, nonbiodegradable cutting oil or products of mineral oil origin in amounts that will cause interference or pass-through.
8. Pollutants which result in the presence of toxic gases, vapors or fumes within the Encina Sewerage System in a quality or quantity that may cause health and safety problems.
9. Pollutants or wastewater that would cause violation of any permit, statute rule, regulation or ordinance of any public agency or regulatory agency having jurisdiction over the discharge of wastewater to or from the Encina Sewerage System.
10. Wastewater or any substance that is defined as a hazardous or radioactive waste by any regulatory agency.
11. Pollutants delivered by vehicular transport, rail car or dedicated pipeline, except on a case-by case basis, at discharge points designated by the Director and in accordance with a valid Special Use Discharge Permit.
12. Sludge generated by the pretreatment of wastewater.
13. Pollutants that cause wastewater, biosolids, or wastewater byproducts to be unsuitable for beneficial reuse or reclamation.
14. Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby violating EWA's NPDES permit.
15. Detergents, surface-active agents, or other substances which may cause excessive foaming in the Encina Sewerage System.