

State of California  
Resources Agency

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 79-119

NPDES NO. CA0110175

Waste Discharge Requirements  
For  
UNITED STATES NAVY  
NAVF, SAN CLEMENTE ISLAND  
(Wastewater Treatment Plant)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. United States Navy discharges wastes from its Naval Auxiliary Landing Field, San Clemente Island, under NPDES Permit No. CA0110175, adopted by this Board on November 27, 1978. That permit expires on October 10, 1979.
2. United States Navy has filed a report of waste discharge and has applied for renewal of its waste discharge requirements and National Pollutant Discharge Elimination System permit.
3. United States Navy discharges an average of 25,000 gallons per day (1979) of treated domestic wastewater to the Pacific Ocean, a water of the United States, at a point about 1,000 feet south of Wilson Cove (approximate Latitude 32°59'50", Longitude 118°32'45"). The effluent is discharged through an 8-inch diameter line above the ocean surface at the rocky shore line.
4. The United States Navy completed construction in May 1979 of a secondary wastewater treatment plant with a design capacity of 60,000 gallons per day. This "package type" treatment plant consists of comminution, aeration, clarification, chlorination and dechlorination.
5. The influent to the treatment plant is domestic sewage which is derived from City of Los Angeles municipal water barged out to San Clemente Island from San Pedro; a portion of the service area uses salt water for toilet flushing.
6. The waters surrounding San Clemente Island to a distance of one nautical mile offshore or to the 300-foot isobath, whichever is the greater distance, were designated by the State Water Resources Control Board as an Area of Special Biological Significance (ASBS) on March 21, 1974 (Resolution No. 74-28). The designation would require phasing out the existing discharge of waste to the ASBS by the Naval Auxiliary Landing Field.

7. The United States Navy requested exclusion of certain zones within the ASBS on the bases that such zones do not meet the criteria established by the State Water Resources Control Board for selection of ASBS.
8. The State Water Resources Control Board adopted Resolution No. 77-11 on February 17, 1977, to allow this discharge of sewage provided the following conditions are met:
  - a. Secondary treatment of the waste.
  - b. Compliance with the water quality objectives and the Quality Requirements for Waste Discharges contained in the Water Quality Control Plan for Ocean Waters of California.
  - c. Specific effluent limits which are based upon existing average daily flow, (25,000 gallons per day), rather than upon treatment plant design capacity, including a daily maximum for five-day biochemical oxygen demand not to exceed 19 lbs/day.
  - d. Demonstration by the monitoring program that (1) the waste does not alter natural water quality (that is, it is undetectable beyond a radius of 1,000 feet from the end of the outfall, and (2) there is compliance with the Ocean Plan.
9. The initial dilution of this discharge has been determined to be ten parts of seawater to one part of effluent.
10. The State Water Resources Control Board adopted an amended Water Quality Control Plan for Ocean Waters of California (Ocean Plan) on January 19, 1978. The Ocean Plan contains water quality objectives for the coastal waters of California.
11. The Board adopted a revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978. The Plan contains water quality objectives for the Pacific Ocean. The requirements contained in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.
12. The beneficial uses of the receiving waters are: navigation, water contact recreation, non-contact water recreation, ocean commercial and sport fishing, preservation of areas of special biological significance, preservation of rare and endangered species, marine habitat, and shellfish harvesting.

13. Effluent limitations, national standards of performance, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharges to navigable waters and tributaries thereto.
14. The issuance of waste discharge requirements for this discharge is exempt from the Provisions of Chapter 3 (commencing with Section 21000) of Division 13 of Public Resources Code in accordance with Water Code Section 13389.

The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public hearing heard and considered all comments pertaining to the discharge and to the tentative requirements.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from the date of its adoption, provided the Regional Administrator, EPA, has no objections.

IT IS HEREBY ORDERED, that United States Navy,

in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

**A. Effluent Limitations**

- 1 a. Wastes discharged shall be limited to treated domestic wastewater only, as proposed.
  - b. Discharge in excess of an average daily flow of 25,000 gallons per day is prohibited. All other discharges of waste to the ocean from San Clemente Island are prohibited.
2. The discharge of an effluent in excess of the following limits is prohibited:

Order

CA0110175

<u>Constituent</u>	<u>Units</u>	<u>Discharge Limitations</u>		
		<u>Monthly (30-day Average)</u>	<u>Weekly (7-day Average)</u>	<u>Maximum (at any time)</u>
BOD <sub>5</sub> 20°C	mg/l lbs/day*	30 6.26	45 9.38	--- 19.0
Oil and grease	mg/l lbs/day*	25 5.21	40 8.34	75 15.6
Suspended solids	mg/l lbs/day*	30 6.26	45 9.38	--- 19.0
Settleable solids	ml/l	1.0	1.5	3.0
Turbidity	NTU	75	100	225
Toxicity concentration	TU	1.5	2.0	2.5

<u>Constituent</u>	<u>Units</u>	<u>Discharge Limitations</u>		
		<u>6-Month Median</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Arsenic	mg/l lbs/day*	0.058 0.012	0.32 0.067	0.85 0.18
Cadmium	mg/l lbs/day*	0.033 0.007	0.13 0.028	0.33 0.069
Total chromium	mg/l lbs/day*	0.022 0.005	0.088 0.018	0.22 0.046
Copper	mg/l lbs/day*	0.35 0.073	0.20 0.042	0.53 0.11
Lead	mg/l lbs/day*	0.088 0.018	0.35 0.073	0.88 0.18
Mercury	mg/l lbs/day*	$9.4 \times 10^{-4}$ $2.0 \times 10^{-4}$	0.0056 0.0012	0.015 0.0031
Nickel	mg/l lbs/day*	0.22 0.046	0.88 0.18	2.2 0.46
Silver	mg/l lbs/day*	0.01 0.0021	0.018 0.0038	0.048 0.010

\* Based on a flow of 25,000 gallons per day.

Constituent	Units	Discharge Limitations		
		6-Month Median	Daily Maximum	Instantaneous Maximum
Zinc	mg/l	0.14	0.80	2.12
	lbs/day*	0.029	0.17	0.44
Cyanide	mg/l	0.055	0.22	0.55
	lbs/day*	0.011	0.046	0.11
Phenolic compounds	mg/l	0.33	1.32	3.3
	lbs/day*	0.069	0.28	0.69
Total chlorine residual	mg/l	0.022	0.12	1.32
	lbs/day*	0.005	0.025	0.28
Ammonia (expressed as nitrogen)	mg/l	6.6	26.4	66.0
	lbs/day*	1.38	5.50	13.8
Toxicity concentration	tu	0.55	---	---
Total chlorinated Pesticides and PCB's	mg/l	0.002	0.004	0.006
	lbs/day*	$4.2 \times 10^{-4}$	$8.3 \times 10^{-4}$	0.0013

3. The daily discharge rate shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

in which N is the number of samples analyzed in any calendar day.  $Q_i$  and  $C_i$  are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken,  $C_i$  is the concentration measured in the composite sample and  $Q_i$  is the average flow rate occurring during the period over which samples are composited.

\* Based on a flow of 25,000 gallons per day.

4. The 7-day and 30 day average discharge values above shall be the arithmetic average of all the values of daily discharge calculated using the results of analyses of all samples collected during any 7 and 30 consecutive calendar day periods, respectively. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average discharge limitation shall not be determined. If fewer than three samples are collected and analyzed during any 7 consecutive calendar day period, compliance with the 7-day average discharge limitation shall not be determined.
5. The arithmetic mean of BOD<sub>5</sub> 20°C and suspended solids values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of values, by weight, for influent samples collected at approximately the same time during the same period.
6. The pH of the wastes discharged shall at all times be within the range 6.0 to 9.0.
7. The temperature of the wastes discharged shall not exceed 100°F.
8. Radioactivity in the effluent shall not exceed limits specified in Section 30269 of the California Administrative Code.
9. The diversion or bypass of any discharge from facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited, except (1) where unavoidable to prevent loss of life or severe property damage, or (2) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this permit. The permittee shall immediately notify the Board by telephone and in writing of each such diversion or bypass in accordance with the procedures established in this permit.
10. Notwithstanding A-9, the by-passing of untreated waste containing concentrations of pollutants in excess of A-2 to the ocean is prohibited.

B. Receiving Water Limitations

1. The wastes discharged shall not cause receiving waters to contain any substance in concentrations toxic to human, animal, plant, or fish life.
2. Wastes discharged shall not cause the appearance of grease, oil or oil slick, or foam in the receiving waters.

3. Wastes discharged shall not cause the formation of sludge banks or deposits, or create a nuisance due to odors or unsightliness along shore or beaches.
4. Wastes discharged shall not cause objectionable odors to emanate from the receiving waters.
5. No sewage solids or other physical evidence of waste discharge shall be visible at any time in the water or on beaches, shores, rocks or structures.
6. The salinity of the receiving waters shall not be changed by the discharge to an extent such as to be harmful to desirable biota.
7. Floating particulates and oil and grease shall not be visible as a result of wastes discharged.
8. Wastes discharged shall not cause objectionable aquatic growths or degrade indigenous biota.
9. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.
10. The pH of the receiving waters shall not be changed, at any time by more than 0.2 pH units from that which occurs naturally outside the zone of initial dilution.
11. Wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause esthetically undesirable discoloration of the ocean surface.
12. Dissolved oxygen concentrations outside the zone of initial dilution shall not at any time be depressed more than 10 percent from which occurs naturally, excluding effects of induced upwelling.
13. The discharge shall not cause the bacteriological limitations to be exceeded in the following areas:
  - a. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for body-contact sports, the following bacteriological objectives shall be maintained throughout the water column: Samples of water from each sampling station shall have a concentration of coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 30-day period exceed 400 per 100 ml.

- b. At all areas where shellfish may be harvested for human consumption, the following bacteriological objectives shall be maintained throughout the water column: The median total coliform concentration shall not exceed 70 per 100 ml, and not more than 10 percent of the sample shall exceed 230 per 100 ml.
14. The transmittance of natural light shall not be significantly reduced at any point outside the initial dilution zone.
  15. The concentration in marine sediments of substances listed in item A2 above shall not be increased to levels which would degrade indigenous biota.
  16. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
  17. The concentration of organic materials in marine sediments shall not be increased above that which would degrade marine life.
  18. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
  19. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

C. General Requirements

1. Neither the discharge nor any treatment of waste shall cause pollution or nuisance.
2. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
3. Odors of sewage origin shall not cause a nuisance.

4. Standby or emergency power facilities and/or storage capacity or other means shall be provided so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.
5. The Board shall be notified immediately by telephone of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of this discharge; written confirmation shall follow within 24 hours.

## D. Provisions

1. This Order includes the following items of the attached "Standard Provisions": 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, and 12.
2. This Order includes the following items of the attached "Reporting Requirements": 1, 2, 4 and 5.
3. This Order includes the attached "General Monitoring and Reporting Provisions."
4. This Order expires on July 10, 1984, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
5. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
6. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.
7. Any discharge of wastes at any point(s) other than specifically described in this permit is prohibited, and constitutes a violation of the permit.
8. This order may be modified, or, alternatively, revoked and reissued, to comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et al. v. Russell E. Train, 8 ERC 2120 (D.D.C. 1976), if the effluent limitation so issued:
  - (1) is different in conditions or more stringent than any effluent limitation in this order; or
  - (2) controls any pollutant not limited in this order.
9. These requirements do not exempt the operator of this waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraint on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

10. The discharger shall provide a technical report to the Board within 30 days of the effective date of this Order, for approval by the Executive Officer, on the fail-safe procedures established to assure that the wastes discharged will have received adequate treatment at all times.

The procedures may include 24-hour operator attendance at the treatment works; alarms for summoning personnel if there is less than 24-hour attendance at the treatment works; or other methods which will detect problems and institute corrective measures prior to discharge of inadequately treated wastes if there is a breakdown or upset of the treatment works.

11. Any changes made to fail-safe procedures (which had previously been submitted to, and approved by, the Executive Officer) shall be reported to the Board in writing within one month from such changes and must be approved by the Executive Officer.
12. NPDES Permit (NPDES No. CA0110175) adopted by this Board on November 27, 1978, is hereby rescinded.

I, Richard A. Harris, Assistant Regional Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on July 23, 1979.

Original Signed By  
RICHARD A. HARRIS

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RICHARD A. HARRIS  
Assistant Regional Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
 LOS ANGELES REGION  
 MONITORING AND REPORTING PROGRAM NO: 6432  
 FOR  
 UNITED STATES NAVY  
 NALF, SAN CLEMENTE ISLAND  
 (Wastewater Treatment Plant)  
 (CA0110175)

The discharger shall implement this monitoring program beginning on the effective date of this Order. Monitoring reports shall be submitted to the Board monthly by the first day of the second following month. The first monitoring report under this program is due by October 1, 1979.

Each monitoring report must affirm in writing that all analyses were conducted at a laboratory certified for such analyses by the State Department of Health Services and in accordance with current EPA guideline procedures or as specified in this Monitoring Program.

For any analysis performed for which no procedure is specified in the EPA guidelines or in this Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

If no wastes were discharged to surface waters during the month, the report shall so state.

Effluent Monitoring

A sampling station shall be established for each point of discharge to surface waters and shall be located where representative samples of effluent can be obtained. The following shall constitute the effluent monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Temperature	°F	grab	monthly
Total waste flow	mgd	continuous	-----
BOD <sub>5</sub> 20°C	mg/l	24-hour composite	monthly
Coliform group 1/	MPN/100 ml	grab	monthly
Oil and grease	mg/l	grab	monthly
Suspended solids	mg/l	24-hour composite	monthly
Settleable solids	ml/l	grab	monthly
Turbidity	NTU	grab	monthly
pH	pH units	grab	monthly
Toxicity concentration tu and % survival		grab	annually

1/ Shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities and disinfection procedures.

Demonstration of Compliance with 30-day Average Limitations

For parameters where both 30-day average and maximum limits are specified but where the monitoring frequency is less than four times a month, the following procedure shall apply. Initially, beginning not later than the first week of the second month after the adoption of this permit, a representative sample shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the 30-day average limit has been demonstrated. Once that compliance has been demonstrated, sampling and analyses shall revert to the frequency specified in the table above. However, if future analyses of two successive samples yield results greater than 90% of the maximum limit for a parameter, the sampling frequency for that parameter shall be increased (within one week of receiving the laboratory result on the second sample) to a minimum of once weekly until at least four consecutive weekly samples have been obtained and compliance with the 30-day average limit has been demonstrated again and the discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the 30-day average limit.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Arsenic	mg/l	24-hour composite	annually
Cadmium	mg/l	24-hour composite	annually
Total chromium	mg/l	24-hour composite	annually
Copper	mg/l	24-hour composite	annually
Lead	mg/l	24-hour composite	annually
Mercury	mg/l	24-hour composite	annually
Nickel	mg/l	24-hour composite	annually
Silver	mg/l	24-hour composite	annually
Zinc	mg/l	24-hour composite	annually
Cyanide	mg/l	24-hour composite	annually
Phenolic compounds	mg/l	24-hour composite	annually
Total chlorine residual	mg/l	grab	monthly
Ammonia-as N	mg/l	24-hour composite	annually
Total chlorinated Pesticides and PCB's	mg/l	24-hour composite	annually
Radioactivity		24-hour composite	annually

Annual analyses shall be made in September of each year.

Influent Monitoring

A sampling station shall be established for each point of sewage water inflow to the wastewater treatment plant and shall be located where representative samples of influent can be obtained. The following shall constitute the influent monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
BOD <sub>5</sub> 20°C	mg/l	24-hour composite	monthly
Suspended solids	mg/l	24-hour composite	monthly

## Receiving Water Monitoring

### Location of Sampling Stations

1. Ocean water sampling stations shall be located on a half-circle arc at a distance of 1,000 feet from the point of discharge at the locations designated and described as follows:

<u>Station No.</u>	<u>Location</u>
RW-1	Northwesterly along the shoreline at a point as near to the shoreline as can be negotiated safely by boat.
RW-2	At a point on a bearing 30° to the northward from the alignment of the outfall.
RW-3	At a point on a bearing 30° to the southward from the alignment of the outfall.
RW-4	Southward along the shoreline at a point as near to the shoreline as can be negotiated safely by boat.

The following shall constitute the Receiving Water Monitoring Program:

<u>Parameter</u>	<u>Units</u>	<u>Types of Sample</u>	<u>Minimum Frequency of Analyses</u>
Coliform group	MPN/100ml	grab	quarterly

Samples shall be taken within 3 feet of the water surface. Samples for quarterly analyses shall be taken during the months of March, June, September and December.

At the time samples of the receiving waters are collected observations of conditions of wind, weather, and tide shall be made and recorded. Observations of water color, turbidity, odor, and of floating or suspended matter in the water or on the beach, rocks and jetties or beach structures shall also be made and recorded. The character and extent of such matter shall be described. The annual receiving water monitoring shall be performed during the same month that the annual effluent determinations are made.

### Reporting of Results

1. Results of sampling and observations shall be submitted with the monthly monitoring reports.

Original Signed By  
RICHARD A. HARRIS

Ordered by \_\_\_\_\_  
Assistant Regional Executive Officer

JUL 23 1979

\_\_\_\_\_ Date