

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM NO. R9-2002-0040
FOR DEPARTMENT OF THE NAVY
CLASS II WASTE MANAGEMENT FACILITY
FOR TREATMENT OF PETROLEUM HYDROCARBON CONTAMINATED SOIL
AT NAVAL AIR STATION NORTH ISLAND
SAN DIEGO COUNTY

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Executive Officer.
2. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this Order.
3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer.
4. Monitoring results must be reported on discharge monitoring report forms approved by the Executive Officer.
5. If the discharger monitors any pollutants more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.
6. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Executive Officer.
7. All monitoring instruments and devices that are used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

8. The discharger shall report all instances of noncompliance, not reported under the **Reporting Requirement D.3** of Order No. R9-2002-0040, at the time monitoring reports are submitted. The reports shall contain the information listed in **Requirement D.3** of Order No. R9-2002-0040.
9. Records of monitoring information shall include:
 - a. The date, identity of sample monitoring point from which it was taken, weather conditions at time of sampling, and time of sampling or measurement;
 - b. The individual(s) who performed the sampling or measurements;
 - c. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;
 - d. The analytical techniques or method used, including method of preserving the sample and the identity and volumes of reagents used;
 - e. Calculation of results;
 - f. Results of analyses, and the MDL for each parameter; and.
 - g. Laboratory quality assurance results (*e.g.* percent recovery, response factor)
10. The monitoring reports shall be signed by an authorized person as required by the **Reporting Requirement D.6** of Order No. R9-2002-0040.

B. UNTREATED SOIL MONITORING

1. The discharger shall monitor each load of soil accepted at the Class II Waste Management facility. The following parameters shall be reported quarterly:

Table 1. Untreated Soil Monitoring

<u>Parameter</u>	<u>Units</u>
Quantity Accepted, Number of trips per day	Tons, Cubic Yards
Source(s) of Soil Accepted	Address/Building Number, Release Type, Type of Facility
Major Pollutants(s) and Ranges(s) of Concentration	Appropriate Units
Target Hydrocarbons	BTEX, Diesel, etc.
Analytical Methods/Sample Preparation	LUFT (8015 mod), EPA 8021, etc.
Identification Technique	GC, IR, etc.
Compound Class	TPH, etc.

2. A soil testing program for radionuclides shall be conducted in the following manner:
 - a. All soil piles would be tested after excavation with a Ludlum 3 sodium-iodide scintillation detector.
 - b. Reference points within a few hundred feet would also be measured for comparison.
 - c. Submit test results as part of the monitoring and reporting program.
 - d. All soil destined for the bioremediation facility will be tested in this manner.
3. Documentation of the non-hazardous nature of each lot of untreated soil shall be reported quarterly. Hazardous characteristics shall be determined by criteria contained in California Code of Regulations (CCR) Title 22, Division 4, Chapter 30 Article 11.

C. TREATED SOIL MONITORING

1. The discharger shall monitor each lot of treated soil proposed for disposal/reuse off-site. The following parameters shall be reported quarterly:

Table 2 . Treated Soil Monitoring

<u>Parameter</u>	<u>Units</u>
Quantity discharged. Number of trips per day	tons, cubic yards
Ultimate location of treated soil disposal or use	Address/Zoning
Results from analysis	See below (include summary of QA/QC)

2. Each lot of petroleum hydrocarbon contaminated soil treated at the facility shall be sampled and analyzed as follows:
 - a) **Sampling:** All soil samples shall be collected in accordance with sampling guidelines set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, Third Edition," U.S. Environmental Protection Agency, 1986. A minimum of **four** samples shall be analyzed for either primary and/or secondary analysis.
 - b) **Analysis:** The minimum detection levels for the methods prescribed are listed in **Table 3** of this Monitoring and Reporting Program.

Primary

Diesel/JP-5 Hydrocarbons: Diesel and heavier petroleum hydrocarbon contaminated soil shall be analyzed using the DHS/EPA Method 8015 modified to quantify the total petroleum hydrocarbons through the carbon range C₁₂ to C₃₀.

Lubrication Oil and Other Heavy-Ended Petroleum Hydrocarbons:

Lubrication oil and other heavy-ended petroleum hydrocarbon ("waste oil") contaminated soil shall be analyzed using the both EPA Method 418.1 and DHS/EPA Method 8015 modified to quantify the total petroleum hydrocarbons through the carbon range C₆ to C₅₀. Additional analytical results are also required for chlorinated solvents (EPA Method 8261), heavy metals listed in CCR Title 22, Division 3, Article 11, Section 66261.24 (EPA Method 6010, organic lead Method 7421, and EPA Method 1311 - TCLP), and polychlorinated biphenyls (PCBs, EPA Method 8081). Waste oil contaminated soil must not violate **Prohibition A.3 of Order No. R9-2002-0040**.

Secondary

Diesel/JP-5/Heavy-Chain Hydrocarbon: Diesel / JP-5 and heavier petroleum hydrocarbon contaminated soil shall be analyzed for Benzene, Toluene, Ethylbenzene, Total Xylene (BTEX) as described above. Also, the soil shall be extracted using the Synthetic Precipitation Leaching Procedure (SPLP, EPA Method 1312) for volatile constituents. Subsequently, the extract shall be analyzed for: 1) diesel / JP-5 using DHS/EPA Method 8015 modified to quantify the total petroleum hydrocarbons through the carbon range C₁₂ to C₃₀.

Table 3. Test Methods and Minimum Detection Levels for Petroleum Contaminated Soil

Type of Contaminant	Constituent of Concern	Ext. Method	Carbon Range	Prep. Method	DHS/EPA Method of Analysis	Minimum Detection Level
Diesel	TPH-Diesel/JP-5		C ₉ -C ₃₀	5035	8015M/DHS	10 mg/kg
Diesel	Leachable Diesel/JP-5	SPLP/ Method 1312	C ₉ -C ₃₀	5035	8015M/DHS	100 µg/L
Crude/Heavy Oil	Heavy-Ended Hydrocarbons		C ₆ -C ₅₀		418.1	10 mg/kg
All	BTEX				8021	0.5 µg/kg

D. FINAL DISPOSITION OF TREATED SOIL

1. For each discharge of treated soil to an unclassified waste management unit the discharger shall report all information that is necessary for the Regional Board to assess compliance with the conditions required by **Discharge Specifications B. 29 and B.30** of

Order R9-2002-0040. This information shall be reported as an appendix to the quarterly **Site Maintenance Reports** (see **Section E** below) pursuant to the schedule required in **Section G.3. - Reports To Be Filed With the Regional Board.**

E. SITE MAINTENANCE

1. The discharger shall perform quarterly inspections of the biotreatment facility and report the results **quarterly**. The report shall contain information on the site condition and a discussion of any significant findings with regarding:
 - a) General site condition;
 - b) Waste pile cover condition;
 - c) Drainage facilities on and immediately off site;
 - d) Groundwater monitoring wells condition; and
 - e) Maintenance activities at the site.

F. GROUNDWATER QUALITY MONITORING

1. Pursuant to **Discharge Specifications B.** of Order No. R9-2002-0040, groundwater shall be sampled upgradient at groundwater monitoring well 9-MW-24 and downgradient at groundwater monitoring well 9-MW-25. Samples shall be collected quarterly. Samples shall be analyzed as follows:

Table 5. Groundwater Monitoring Program Analyses

Constituent	Units	DHS/EPA Method of Analyses	Frequency of Analyses
Water elevation	0.01 feet from datum	(in field)	Quarterly
TPH-diesel/JP-5	mg/l	8015M/DHS	Quarterly
Benzene	ug/l	8021	Quarterly
Toluene	ug/l	8021	Quarterly
Total xylenes	ug/l	8021	Quarterly
Ethylbenzene	ug/l	8021	Quarterly
Lead (total)	ug/l	6010	Quarterly
pH	pH units	(in field)	Quarterly
Temperature	F/C	(in field)	Quarterly
Conductivity	(Ωm)	(in field)	Quarterly

G. REPORTS TO BE FILED WITH THE REGIONAL BOARD

All reports shall be submitted no later than one month following the end of their respective Reporting Period. The reports shall be comprised of the following in addition to the specific contents listed for each respective report type:

1. Transmittal Letter

A letter summarizing the essential points shall be submitted with each report. The transmittal letter shall include:

- a. A discussion of any requirement violations found since the last such report was submitted and shall describe actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting said requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter; and
- b. A statement certifying that, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct. An individual that meets the requirements contained in **Reporting Requirement D.6** shall sign this statement.

2. Annual Summary Report

The discharger shall submit to the Regional Board an annual report, in addition to quarterly reports, covering the previous monitoring year. The annual report shall include, but not be limited to the following:

- a. Presentation of Analytical Data - For each disposal activity, submit in an Executive Officer approved format the laboratory analytical data for all samples taken that characterize the soil disposed of.
- b. Summary of Changes - A written summary of the monitoring results and monitoring system(s), indicating any changes made or observed since the previous annual report.

3. Reporting Schedule

<u>Reporting Frequency</u>	<u>Report Period</u>	<u>Report Due</u>
Quarterly	January - March	April 30
	April - June	July 30
	July - September	October 30
	October - December	January 30
Annually	April - March	April 30

Monitoring reports shall be submitted to:

California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123
Attn: Supervisor, Land Discharge Unit

Ordered by:


JOHN H. ROBERTUS
Executive Officer

February 13, 2002