



California Regional Water Quality Control Board

Los Angeles Region



Winston H. Hickox
Secretary for
Environmental
Protection

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Gray Davis
Governor

April 18, 2000

Mr. Mark Shemaria
Tidelands Oil Production Company
301 E. Ocean Blvd., Suite 300
Long Beach, CA 90802

WASTE DISCHARGE REQUIREMENTS – MAINLAND WEST LANDFARM, 421 HENRY FORD AVENUE, WILMINGTON, CALIFORNIA (Order No. 00-044, File No. 77-47; CI 8128)

Dear Mr. Shemaria:

Reference is made to our letter of March 29, 2000, which transmitted a copy of revised tentative waste discharge requirements for the subject site.

Pursuant to Division 7 of the California Water Code, this Regional Board at a public hearing held on April 13, 2000, reviewed the tentative requirements, considered all factors in the case, and adopted Order No. 00-044 (copy attached) relative to this landfill.

All monitoring reports should be sent to the Regional Board, Attention: Information Technology Unit. Please reference all technical and monitoring reports to our Compliance File No. CI-8128. We would appreciate it if you would not combine other reports, such as progress or technical, with your monitoring reports but would submit each type of report as a separate document.

If you have any questions or need additional information, please contact Dr. Wen Yang at (213) 576-6795.

Sincerely your,

Rodney H. Nelson

RODNEY H. NELSON
Senior Engineering Geologist
Landfill/Cleanup Unit

Enclosure

cc: See mailing list

California Environmental Protection Agency



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California Environmental Protection Agency

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

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Mr. Peter Janicki, California Integrated Waste Management Board
Mr. Dan Meister, Department of Toxic Substance Control (Glendale)
Mr. William Paznokas, California Department of Fish and Game, Region 5
Mr. Richard Hanson, County of Los Angeles, Environmental Health
Ms. Terri Grant, County of Los Angeles, Department of Public Works
Mr. Delwin Biagi, City of Los Angeles, Bureau of Sanitation
Mr. Robert Kanter, Port of Long Beach

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 00-044

**WASTE DISCHARGE REQUIREMENTS
For
TIDELANDS OIL PRODUCTION COMPANY
(MAINLAND WEST LANDFARM)**

File No. 77-47

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

1. Tidelands Oil Production Company (hereafter "discharger") operates the Mainland West Landfarm (landfarm) at 421 Henry Ford Avenue, Wilmington, California (Latitude 33°46'18", Longitude 118°14'39"), under an Industrial Wastewater Permit issued by the City of Los Angeles (Permit No. W-492261).
2. Section 20250(b)(5) of Division 2, Title 27 of California Code of Regulations requires that Regional Boards shall specify in Waste Discharge Requirements, the elements of land treatment programs by dischargers who treat or dispose of wastes in land treatment waste management units. On February 4, 2000, the discharger submitted a Report of Waste Discharge to the Regional Board to apply for Waste Discharge Requirements for the landfarm.
3. The landfarm consists of two separate bays that are approximately 200 feet from each other. The northern bay contains four treatment units with a total area of 223,850 square feet, while the southern bay has three treatment units with a total area of 165,900 square feet (Figure 1). The top of the treatment units is currently about four feet above ground surface. The roadway around the bays, which also serves as the containment berms for the treatment units, is about seven feet above the ground surface.
4. The landfarm is within the Wilmington Oilfield and is part of the Discharger's oil and gas production and exploration operations in the Wilmington-Long Beach area. It receives approximately 22,000 barrels per year (2,532 gallons per day) of oilfield wastes including the wastes come from process tanks and vessels used in the separation of produced fluids, maintenance operations, and well development and servicing. Crude oil contaminated soil excavated from the oilfield is also deposited at the landfarm. No wastes from other generators or other sites are allowed to be deposited in the landfarm. No refined products or solvents are applied to the landfarm.
5. The wastes deposited at the landfarm are mixtures of crude oil, produced water, sand, clays, and scale generated from oilfield operations. Wastes are transported to the site by vacuum trucks or dump trucks and mechanically mixed with soil matrix in the treatment units. Periodically, cultured bacteria and fertilizer (nitrogen and phosphorous) are added to ensure

April 13, 2000

that the wastes are completely degraded, transformed, or immobilized in the treatment zone. The discharger also adds produced water to the treatment units when it is necessary to maintain the optimum moisture content in the treatment units during hot summer months. Monthly sampling and analysis of the wastes are conducted to ensure that petroleum hydrocarbons are degrading and there is sufficient moisture and nutrients in the treatment units.

6. Historically, the predecessor of the discharger, Champlin Petroleum Company, a subsidiary of Union Pacific Resources Company (UPRC), operated three regulated landfarms at the oil production property. They are referred to as the Island East Landfarm, the Island West Landfarm, and the Mainland West landfarm. The Island West and Mainland West landfarms are located in the Wilmington area, which is under the jurisdiction of the City of Los Angeles, and have been regulated by Industrial Wastewater Permits issued by the City of Los Angeles. The Island East Landfarm, which is located in the City of Long Beach, has been regulated by Regional Board Waste Discharge Requirements Order No. 78-49 that were issued to Champlin Petroleum Company on April 24, 1978.
7. In March 1994, the Port of Long Beach purchased the oil production facilities, including the three landfarms described above, from UPRC and selected Tidelands Oil Production Company as the contract operator. In 1997, Tidelands clean closed the Island West landfarm by transporting all the waste to the Island East Landfarm, as approved by Regional Board staff. By a letter dated March 23, 1999, Regional Board staff also approved the closure of the Island East landfarm.
8. Since 1992, the Port of Long Beach has been conducting a Solid Waste Assessment Test (SWAT) investigation of a 720 acre oil production property that is referred to as the TCL site in the Terminal Island and nearby area. The investigation has been overseen by the California Department of Toxic Substance Control (DTSC) and this Regional Board (SLIC No. 557, Board Orders No. 93-067 and No. 96-022). The three above described landfarms are located within the SWAT study area.
9. Pursuant to Section 402 (p) of the Clean Water Act and 40 CFR Parts 122, 123, and 124, the State Board adopted a general NPDES permit to regulate storm water discharges associated with industrial activity (State Board Order 97-03-DWQ). Storm water discharge from the entire crude oil production property, including the landfarm, is currently regulated under the general NPDES permit (WDID No. 4B19S004312).
10. The landfarm lies at the southern edge of the Los Angeles Basin within the Dominguez Gap (the alluvial flood plain of the Los Angeles River). The site is underlain with 20 to 40 feet of fill soils, believed to be derived from dredging operations in nearby channels or imported from similar sources. The soils consist of very fine sandy clay and silts and silty sands. Dredge fill is underlain by approximately 70 feet of Quaternary silts and clays with inter-bedded layers of loose to medium dense fine sands. These deposits overlie about 15,000 feet of Tertiary basin fill deposits generally composed of dense to very dense sands and silty sands.

11. The shallowest regional occurrence of groundwater underlying the site is the Gaspar Aquifer, which is approximately 60 to 100 feet thick at the site and begins about 70-90 feet below ground surface. The Gaspar Aquifer consists of gravel and cobbles at its base and grades upward into medium to coarse sand. Depth of first groundwater beneath the site occurs at approximately 1.5 to 7 feet below surface in an unconfined water-bearing unit that occurs well above the Gaspar Aquifer. This shallow groundwater is separated from the Gaspar Aquifer by thick sequences of bay muds and clays. The flow direction of the shallow groundwater beneath the site is generally toward the east, as indicated by the groundwater monitoring reports (1999) for the TCL SWAT investigation.
12. No data is available for the groundwater under or near the landfarm. However, as part of the TCL SWAT investigation, four groundwater monitoring wells were installed around the landfarm. Data collected since 1992 indicates that the shallow groundwater under the oilfield contains high concentrations of total dissolved solids (range from 4,700 to 67,700 mg/L). Laboratory data up to September 1999 indicate no petroleum hydrocarbons, VOCs, or SVOCs were detected in the groundwater.
13. The Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 13, 1994. The Plan contains beneficial uses and water quality objectives for groundwater in the Los Angeles Coastal Plain Groundwater Basin. The landfarm overlies the West Coast Basin of the Los Angeles Coastal Plain Hydrologic Area. Beneficial uses of the groundwater in the Basin include municipal, agricultural, industrial service and process supply. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.
14. These waste discharge requirements govern the disposal of oily wastes on an existing oil producing zone. Such activity constitutes only a minor modification of land, and is therefore exempt from the provisions of the California Environmental Quality Act (Public Resource Code, Section 21100 et seq.) in accordance with Title 14, Chapter 3, Section 15304 of the California Code of Regulations.

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

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

IT IS HEREBY ORDERED, that Tidelands Oil Production Company (the discharger) shall comply with the following:

A. Waste Discharge Requirements

1. Waste materials to be disposed of at landfarm shall be limited to hydrocarbon contaminated oilfield wastes generated by the Discharger at the Wilmington Oilfield only,

as proposed. No wastes from other generators or other sites shall be deposited at this site. No refined products, solvents, or materials of a toxic nature such as insecticides, poisons, or radioactive material, shall be deposited at the site.

2. The land treatment process shall be conducted in such a way that no contaminants are added to surface water or groundwaters.
3. Disposal of wastes shall be within the confines of the site proposed, and wastes shall not be permitted to enter surface waters. Waste confinement barriers shall be protected and maintained to ensure effectiveness.
4. Wastes shall be spread and disked into the topsoil as received, and there shall not be ponding of water or oily material in the treatment units.
5. Odors of the waste origin shall not be perceivable beyond the limits of property controlled by the discharger.
6. Maximum land treatment zone thickness shall not exceed 18 inches or the maximum depth of penetration of the aeration equipment, whichever is less, except with prior written approval of the Executive Officer. The total thickness of treated waste shall not exceed five feet from the initial soil surface.
7. No water shall be used at the site except for surface dust control or in the purpose of maintain optimum moisture content in the treatment units. Such water shall not be allowed to pond on the site.
8. During the land treatment operations, surface runoff from the drainage area tributary to this site shall be prevented from passing over or percolating through the treatment zone. Adequate facilities shall be provided to divert all surface runoff from storms away from the treatment area. Water falling on the treatment units shall be contained thereon.
9. The discharger shall remove and relocate to a legal disposal site any wastes that are discharged in violation of these requirements. For the purpose of these requirements, a legal point of disposal is defined as one for which Waste Discharge Requirements have been established by a California Regional Water Quality Control Board, and is in full compliance therewith.
10. Wastes discharged shall meet the requirements contained in Title 27 of California Code of Regulations for construction standards, water quality monitoring, and closure and post-closure maintenance of land treatment units. No pollution or nuisance shall be caused by handling, storage, or disposal of these wastes.

B. Water Quality Protection Limits

No groundwater protection limits have been prescribed at this time because the groundwater in

the area is generally impaired by high concentrations of total dissolved solids and no background water quality that is directly affected by the landfarm is currently available. Water quality protection limits will be established after one year of quarterly background water quality monitoring using the monitoring system as described in Provision C.1. of this Order and Section II.B. of the Monitoring and Reporting Program (Attachment T).

C. Provisions

1. By May 31, 2000, the discharger shall submit a technical report, to be approved by the Executive Officer, for design and implementation of a receiving water (ground and surface water) monitoring program for the detection of water quality impacts. The monitoring program shall fully characterize the quality of the produced water and other wastes discharged at the landfarm. The monitoring program shall also evaluate the hydraulic connection, if any, with nearby surface waters, including the Cerritos Channel (which is listed as an impaired water body under Section 303(d) of the Clean Water Act). The report shall also include a time schedule for implementation.
2. The discharger shall use the statistical procedures contained in CCR Title 27, Section 20415(e)(7), to determine if there is a statistically significant increase for any background indicator parameter. Upon approval of the Executive Officer, alternative statistical procedures may be used.
3. In the event that a statistically significant increase is observed for any background indicator parameter, the discharger shall establish an evaluation program in accordance with CCR Title 27, Section 20415(e)(9), unless such a program has already been submitted.
4. If evaluation monitoring determines that there is a statistically significant increase in the water quality protection standard (background indicator parameters), then the discharger shall institute a corrective action monitoring program in accordance with CCR Title 27, Section 20415(e)(10).
5. In accordance with Section 13260 of the Water Code, the discharger shall file a report of any material change or proposed change in the character, location or volume of the discharge.
6. The discharger shall notify this Board immediately by telephone of any adverse condition resulting from this discharge or from operations producing this waste discharge, such notifications to be affirmed in writing with in one week from the date of such occurrence.
7. In the event of any change in name of operator or in control or ownership of land or waste disposal facilities owned or controlled by the discharger, the discharger shall:
 - a. Notify this Regional Board in writing of such a change; and

- b. Notify the succeeding owner or operator by letter, a copy of which shall be filed with this Regional Board, of the existence of this order.
8. Ninety (90) days prior to cessation of disposal operations at this site, the discharger shall submit a technical report to the Regional Board describing the methods and controls to be used to assure protection of the quality of receiving waters during final operations and with any proposed subsequent use of the land. Such methods and controls shall comply with the foregoing and the waste discharge requirements. The report shall be prepared under the direct supervision of a California-registered geologist or engineer, or a California-certified engineering geologist.
9. This Regional Board considers the property operator and owner to have continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.
10. This Order does not exempt the discharger from compliance with any other laws, regulations, or ordinances which may be applicable, it does not legalize these waste treatment and disposal facilities and it leaves unaffected any further restraints on those facilities which may be contained in other statutes or required by other agencies.
11. This Order is not intended to stop or redirect any investigation or mitigation activities not required by this Order but ordered by this Regional Board or other agency.
12. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements" (Attachment W). If there is any conflict between provisions stated hereinbefore and the attached "Standard Provisions Applicable to Waste Discharge Requirements", those provisions attached hereinbefore prevail.
13. In accordance with Section 13263 of the California Water Code, these requirements are subject to periodic review and revision by this Regional Board.

I, Dennis A. Dickerson, 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 April 13, 2000.



Dennis A. Dickerson
Executive Officer

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

**MONITORING AND REPORTING PROGRAM (CI-8128)
FOR
TIDELANDS OIL PRODUCTION COMPANY
(MAINLAND WEST LANDFARM)**

File No. 77-47

Tidelands Oil Production Company (hereafter "discharger") shall implement this Monitoring and Reporting Program (Program) on the effective date of this Order. The first monitoring report under this program is due by July 15, 2000.

I. Reporting

- A. All reports submitted must be addressed to the Regional Water Quality Control Board, Los Angeles Region, Attention: Information Technology Unit. All monitoring and technical reports shall be referenced to Compliance File No. CI-8128 to facilitate routing to the appropriate staff and file. The name of discharger and the reporting period covered by the monitoring report shall be clearly displayed in the cover page.
- B. A technical report is due May 31, 2000, as required by Provision B.1. of Order 00-044, to propose a groundwater monitoring system at the site, including drilling methods, construction details, and precise locations of groundwater monitoring wells. At least two groundwater monitoring wells shall be located in suitable and accessible locations downgradient from the landfarm. In addition, at least two monitoring wells shall be established upgradient of the landfarm.
- C. Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15
Annual Report	January 15

- D. The quarterly reports shall contain a tabular list of the quantities and types of materials deposited at the site, in cubic yards or barrels, for each month of the quarter. Application rates, in barrels/acre or cubic yards/acre shall be calculated for each month and reported. The reports shall also include the results of all the required sampling and analytical data obtained during the quarter.

- E. The annual report shall summarize the data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned, which may be needed to bring the land treatment operations into full compliance with the waste discharge requirements.
- F. The Regional Board is developing a database management system that, when it becomes fully operational, may require the discharger to submit the monitoring reports electronically.
- G. If the discharger performs analyses for any parameter more frequently than required by this Program, using approved analytical methods, the results shall be included in the monitoring report.
- H. The discharger may submit additional data to the Regional Board not required by this Program in order to simplify reporting to other agencies.

II. Monitoring

- A. Each month, the discharger shall take a representative waste sample from the active treatment zone in each treatment bay and analyze the samples for the following constituents:

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
Aerobic Plate Count	count/g	Monthly
pH	pH units	Monthly
Soil Moisture content	%	Monthly
Total petroleum hydrocarbons (EPA Method 8015 C ₄ -C ₄₀)	mg/kg	Monthly
Nitrate	mg/kg	Monthly
Nitrite	mg/kg	Monthly
Ammonia	mg/kg	Monthly
Ortho-Phosphate	mg/kg	Monthly
CAM metals	mg/kg	Annually
VOCs & Semi-VOCs	µg/kg	Annually

- B. Once a groundwater monitoring system is established per Provision C.1. of Order 00-044, all groundwater monitoring wells shall be sampled for the following constituents:

**Tidelands Oil Production Company
Monitoring and Reporting Program**

**Order No. 00-044
CI-8128**

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
pH	pH units	Quarterly
Total dissolved solids	mg/l	Quarterly
Total petroleum hydrocarbons (EPA Method 8015 C ₄ -C ₄₀)	mg/l	Quarterly
Nitrate	mg/l	Quarterly
Nitrite	mg/l	Quarterly
Ammonia	mg/l	Quarterly
CAM metals	µg/l	Annually
VOCs & Semi-VOCs	µg/l	Annually

- C. Quarterly sampling shall be performed during the months of February, May, August, and November, annually sampling shall be performed during November. In the event sampling is not performed as above because of unforeseen circumstances, substitute sampling shall be performed as soon as possible after these times, and the reason for the delay shall also be given.
- D. The monitoring program is to be continued even during periods when no wastes are deposited at the landfarm, and throughout the active life this Order.
- E. All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services Environmental Laboratory Accreditation Program, or approved by the Executive Officer. Laboratory analyses must follow methods approved by the United States Environmental Protection Agency (EPA), and the laboratory must meet EPA Quality Assurance/Quality Control criteria.
- F. For any analyses performed for which no procedure is specified in the EPA guidelines, or in this Order, the constituent or parameter analyzed, and the method or procedure used, must be specified in the report.
- G. Analytical data reported as "less than" shall be reported as less than a numeric value, or below the limit of detection, for that particular analytical method.
- H. The monitoring report must also include the following:
1. Sampling protocol and analytical methods used;
 2. If any required samples were omitted during the reporting period, a statement to that effect shall be made and reasons given for any omission;

**Tidelands Oil Production Company
Monitoring and Reporting Program**

**Order No. 00-044
CI-8128**

3. Groundwater elevations measured to the nearest 0.01 foot relative to mean sea level. The velocity and direction of ground water flow under the disposal site shall be determined after each monitoring event and reported;
4. An evaluation of the results of the testing signed by a California registered geologist or professional engineer.

Ordered by:



Dennis A. Dickerson
Executive Officer

Date:

April 13, 2000

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