CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 96-097
AMENDMENT TO WASTE DISCHARGE REQUIREMENTS FOR:

West County Landfill, Inc., TPS Technologies, Inc.,
and West Contra Costa Sanitary Landfill, Inc.
West Contra Costa Class II Landfill - Thermal Soil Treatment Facility
Richmond, Contra Costa County

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. On August 23, 1995, the Board adopted Order No. 95-175 for TPS Technologies, West County Landfill, Inc., and West Contra Costa Sanitary Landfill, Inc. (hereinafter called the Discharger). The Discharger owns and operates a Thermal Soil Treatment Facility (TSTF) in addition to the West Contra Costa Class II Landfill (WCCCL) on which the TSTF is located. The TSTF thermally treats non-hazardous hydrocarbon contaminated soil and discharges treated soil to the WCCCL for use as foundation material in final cover construction. The facility is designed to process an average of approximately 250,000 tons of soil annually and has an anticipated lifespan of 10 years.

2. The TSTF was constructed on 3.2 acres of a closed portion of the WCCCL. Final cover was placed over this portion of WCCCL prior to construction of the TSTF.

WASTES AND THEIR CLASSIFICATION

3. Finding No. 9 of Order No. 95-175 provides a partial list of petroleum contaminants in soil intended for treatment at the TSTF. The Discharger has proposed a broader list of non-hazardous, petroleum contaminants including the addition of coal tars and creosote. The Discharger also has proposed additional post-process testing to verify that Polynuclear Aromatic Hydrocarbons, typically found in coal tars and creosote, have been effectively destroyed. The TSTF is designed to process the additional types of petroleum contaminated soil.

SOIL RECEIVING/STORAGE BUILDING FLOOR

4. Specification No. 25 of Order No. 95-175 states that the enclosed soil receiving/storage area shall be underlain by a minimum upper working surface of six inches of reinforced concrete.

5. Following the issuance of Order No. 95-175, the Discharger proposed using an asphaltic concrete as an alternative to the reinforced concrete flooring in low wear portions of the

contaminated soil receiving/storage area. The high wear areas, specifically the entrance, exit, and soil screening areas, will be constructed with concrete as detailed in specification No. 25. Because this facility is sited on top of a landfill, it will be subjected to subsidence as the underlying waste decomposes. Asphalt will be more flexible and more easily maintained as the facility subsides.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

6. The Contra Costa County Community Development Department (County) prepared a mitigated negative declaration that was adopted by the Contra Costa County Board of Supervisors on May 9, 1995, in accordance with California Environmental Quality Act (Public Resources Code Section 21082.1). The mitigated negative declaration completed by the County found no significant impacts to water as a result of the TSTF. This Order governs the maintenance and testing/monitoring protocol at the TSTF and does not have a significant effect on the environment pursuant to Section 21084 (a) of the California Environmental Quality Control Act and Section 15301 of the Resources Code.

COMMENTS

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

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

IT IS HEREBY ORDERED that this Board's Order No. 95-175 be amended as follows:

1. Finding No. 9 shall be revised to read as follows:

   The Discharger proposes to treat petroleum contaminated soils including, but not limited to, leaded and unleaded gasoline, gasohol, jet fuel, diesel, kerosene, fuel oils (ASTM Grade Nos. 1 through 6), hydraulic fluids, non-PCB transformer oils, heat transfer fluids, mineral oils, motor oil, stabilized petroleum sludges, petroleum contaminated absorbents, crude oil, coal tar, creosote, and non-hazardous petroleum derivatives such as benzene, toluene, ethylbenzene, and xylene, and other non-hazardous hydrocarbon compounds such as acetone, methanol, ethanol, etc. If coal tar and creosote soils are accepted for treatment, they will be stored in a separate area from other soils. No hazardous waste will be accepted for treatment and contaminated soil shall contain no free liquids. Contaminated soil accepted for treatment and temporary storage at the TSTF will be classified as solid designated waste under Section 2522, Chapter 15, Title 23, CCR (Chapter 15) because leachable concentrations of organic compounds in the

soil are above water quality objectives for the respective compound. Wastes listed in 40 CFR 261 will not be accepted at this facility, nor will wastes with excessive heavy metal concentrations as per Section 66261.24(a)(2)(A), Title 22, CCR or wastes defined in Sections 66261.21 through 66261.24, Title 22, CCR.

2. The following shall be added to Specification No. 24:

Treatment Standards for coal tar and creosote soils only (in addition to the above listed requirements):

Parameter	Method	Treatment Limit
PAHs	8100 or equivalent (for coal tar and creosote soils only)	Total PAHs not to exceed 2.0 ppm

The Discharger shall perform post-process testing for coal tars and creosote only when these contaminants are being treated. Coal tar and creosote contaminated soil shall be handled and stored separate from other petroleum contaminated soils. Sampling frequency and analyses for post-process soils is outlined in the revised Discharge Monitoring Program (Attachment A).

3. The following shall be added to Specification No. 25:

Asphaltic concrete may be used as an alternative to the reinforced concrete flooring in low wear portions of the contaminated soil receiving/storage area. High traffic portions of the contaminated soil receiving/storage area shall be underlain by the specified concrete or material of equivalent or greater wear resistance

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 17, 1996.

Richard H. Whitsal for

Loretta K. Barsamian
Executive Officer

Attachment A - Revised Discharge Monitoring Plan

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED DISCHARGE MONITORING PROGRAM

FOR

WEST COUNTY LANDFILL, INC., TPS TECHNOLOGIES, INC.,
AND WEST CONTRA COSTA SANITARY LANDFILL, INC.
THERMAL SOIL TREATMENT FACILITY
WEST CONTRA COSTA CLASS II LANDFILL
RICHMOND, CONTRA COSTA COUNTY

ORDER NO. 96-097

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No.73-16. This Discharge Monitoring Program is issued in accordance with Provision C.2 of Regional Board Order No. 96-097.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the discharger in complying with the requirements of this Order.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

A laboratory approved for these analyses by the State of California shall perform water and waste analysis. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters refers to any surface water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, San Pablo Creek and San Pablo Bay are considered receiving waters.

3. Standard observations refer to:

Receiving Waters

1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
2) Discoloration and turbidity: description of color, source, and size of affected area.
3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
4) Evidence of beneficial use: presence of water associated wildlife.
5) Flow rate.
6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the waste management unit.

1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
2) Evidence of combustible gas leaving the waste management unit.
3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
4) Evidence of erosion and/or daylighted refuse.

c. The waste management unit or treatment facility.

1) Evidence of ponded water at any point on the waste management facility.
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion and/or daylighted refuse.
4) Standard Analysis (SA) and measurements are listed in Part B.1.A below.

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analyses, and observations in the following media:

1. Leachate and surface water;
2. Petroleum contaminated soils; and
3. Thermal treated soils.

and per the general requirements specified in this Order.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.
2. Date and time of sampling.
3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
5. Calculation of results.
6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. REGULAR REPORTING

Written detection monitoring reports, contaminated and treated soil sampling reports shall be filed by the 15th day of the month following the report period. In addition an annual report shall be filed as indicated in F.3 below. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a

statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each **Monitoring Report** shall include a compliance evaluation summary. The summary shall evaluate leachate and surface water monitoring for the reporting period including:

Leachate and surface water observations, measurements, and analytical results (if any) for the reporting period. These observations include (as applicable): the method and time of water/leachate level measurement, the type of pump used for purging, method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, recovery time, and method of disposing of the leachate.

Additionally, the following components should be included in the Self Monitoring Report (as applicable): a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.

c. Each **Soil Treatment Process Report** submitted to the Board shall contain the following information:

1. A tabular list of the sources, types and volumes of all wastes to be treated or received daily. (Each source of waste must be identified according to location and type.)
2. TPS shall certify either by the procedures contained in section 66260.200, Title 22 CCR, or based on acceptable analytical data, that each load of waste to be treated is nonhazardous.
3. A tabular list of dates, volumes and locations of the ultimate disposal of any treated or partially treated wastes that were not processed, or of materials that were used as daily cover. If all the material produced during the monitoring period was used, a statement to that effect shall be submitted with each monitoring report.
4. A tabular list of the names and addresses of the waste generators and haulers during the quarter.
5. All analytical results and the dates the samples were taken and analyzed during the quarter.
6. A certification that all wastes received, processed, handled, or disposed off were in compliance with the Board's requirements.

d. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

e. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.

1. The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.

2. In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is outside EPA or approved laboratory established limits; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

2. CONTINGENCY REPORTING

a. A report shall be made in writing to the Board within seven days of determining that a statistically significant concentration has been detected in a surface water or leachate sample. Notification shall indicate what compound(s) has/have been detected and the respective concentration(s). The discharger shall immediately resample at the compliance point where this difference was been found and re-analyze.

b. If resampling and analysis confirms the earlier finding of a statistically significant concentration, the discharger must submit to the Board an amended Report of Waste Discharge as specified in Section 2550.8(k)(5) for establishment of an Evaluation Monitoring Program (EMP) meeting the requirements of Section 2550.9 of Chapter 15.

c. Within 180 days of determining statistically significant evidence of a release, submit to the regional board an engineering feasibility study for a Corrective Action Program (CAP) necessary to meet the requirements of Section 2550.10. At a minimum, the feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern.

3. REPORTING

By January 31 of each year the discharger shall submit an annual report to the Board covering the previous calendar year. This report shall contain:

a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a $3^1/_2$" computer data disk, MS-DOS ASCII format, tabulating the year's data.
b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.
c. A map showing the area, if any, in which the treated soils were used during the previous calendar year.
d. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.
e. A written summary of combustible gas analyses from gas detection system monitoring indicating any gas accumulation, migration beyond or the TSTF.
f. A written summary of contaminated soil and treated soil sampling analyses indicating values of parameters analyzed, total volumes, and locations of the ultimate disposal of treated wastes, any untreated or partially treated wastes that were not processed, or material that was used as daily cover and or foundation cover material.
g. A review of financial assurance and certification that it is still in effect and adequate.

4. FAILURE TO FURNISH REPORTS

Any person failing or refusing to furnish technical or monitoring reports or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation under Section 13268 of the Water Code.

5. WELL LOGS

All boring log and monitoring well construction logs shall be submitted for each well established for this monitoring program, in addition to a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation.

Part B

1. **DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS**

A. SOIL SAMPLING AND ANALYSES - **Report annually**

Soil sampling and analyses shall be performed as outlined below.

1. Incoming Wastes - Soils will be sampled before acceptance for treatment. Discrete samples shall be taken at the rates stated below:

   - One sample for 100 cubic yards or less;
   - Three samples for 500 cubic yards or less;
   - Five samples for 1000 cubic yards or less; and
   - One additional sample for each additional 500 yards greater than 1000 cubic yards.

2. Treated Material (in stockpiles) - Analyses shall be run on treated soil as follows:

   - One sample shall be collected for each 20 tons of soil treated. Ten consecutive samples, representing 200 tons, will be composited into one sample, or at a minimum one sample per 12 hours or fraction thereof;

   - Each composite sample shall be analyzed for the following:

Parameter	Units	Method
Total Petroleum Hydrocarbons (TPH)	mg/kg	EPA 8015 (Modified for gas or diesel)
Benzene, Toluene, Xylenes, Ethylbenzene	mg/kg	EPA 8020

   - For coal tar and creosote soils: One sample shall be collected for each 50 tons of soil treated. Ten consecutive samples, representing 500 tons, will be composited into one sample, or a minimum of one sample per 12 hours of operation or fraction thereof. Each composite sample shall be analyzed for the following:

Parameter	Units	Method
PAHs (24 PAH compounds)	mg/kg	EPA 8100 or 8270 (for coal tar and creosote sites only)

PAH analysis is in addition to the analytical methods specified above for coal tar and creosote soils.

- Once per quarter, a random sample shall be collected and sampled for Volatile Organic Compounds to verify that the sum is within the Discharge Specifications of this Order. Additionally, this sample will be analyzed for total and soluble (WET) lead.

B. ON - SITE OBSERVATION **Inspect Quarterly, Report Semi-annually**

STATION	DESCRIPTION	OBSERVATION	FREQUENCY
V - 1 thru V - 'n'	Located on the TSTF site as delineated by a 500 foot grid network.	Standard observations for the waste management unit.	Monthly
P - 1 thru P - 'n' (peri-meter)	Located at equidistant intervals not exceeding 1000 feet around the perimeter of the TSTF.	Standard observations for the perimeter.	Monthly

C. FACILITIES MONITORING - **Inspect Monthly, Report Semi-annually.**

The Discharger shall inspect all facilities to ensure proper and safe operation and report quarterly. The facilities to be monitored shall include, but not be limited to:

a. Contaminated soil storage building;
b. Clean soil storage area;
c. Soil Treatment area;
d. Drainage runoff control structures;
e Oil/water separator;
f. Perimeter diversion channels; and
g. Leachate Collection and Removal System.

D. LEACHATE AND SURFACE WATER MONITORING - **Inspect Quarterly, Report Semi-annually**

Leachate and surface water shall be monitored as outlined below on a quarterly basis at the locations shown in Figure A-1 (Surface water). The Regional Board will notified if liquid is present in the LCRS as determined during monthly inspection by the discharger. Surface water shall be sampled during the first storm event each quarter that generates surface runoff. The LCRS shall be sampled quarterly if liquid is present.

Monitoring Points:

Monitored Media	**Monitoring Point**
Leachate	LTSTF-1 (LCRS)
Surface Water	SWTSTF-1, SWTSTF-2 (downgradient from Oil/Water separators)

Samples collected from the monitoring points listed in the table above shall be analyzed for the following parameters:

Parameter	Method
Total Petroleum Hydrocarbons (TPH)	EPA 8015 (Modified for gas or diesel)
Benzene, Toluene, Xylenes, Ethylbenzene, and MTBE	EPA 8020
Total & Soluble Lead	EPA 7420
Total Dissolved Solids	Standard Methods

I, Loretta K. Barsamian, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 96-097.

2. Is effective on the date shown below.

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

Loretta K. Barsamian
Executive Officer

Date Ordered: May 12, 1997

Attachment: Figure A-1 - Surface Water Sampling Location Map