

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**CENTRE PLAZA DRIVE  
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September 20, 1995

Mr. Enrique Torroja, President  
American Remedial Technologies  
1000 Southern Boulevard  
West Palm Beach, FL 33405**WASTE DISCHARGE REQUIREMENTS - AMERICAN REMEDIAL TECHNOLOGIES, INC.,  
LYNWOOD (FILE NO. 95-029)**

Reference is made to our letter dated August 31, 1995, which transmitted a copy of tentative waste discharge requirements and a monitoring and reporting program for the proposed discharge at American Remedial Technologies, Inc. The tentative Order was revised on September 18, 1995, as follows:

Page 1, Finding No. 7, new last sentence added to read:

"... The north wing of Bay 11 may also be used for storage of incoming soil."

Page 4, B.1., "and recovery" deleted from end of first sentence. End of sentence now reads, "...including a leak detection system."

Pursuant to Section 13263 of the California Water Code, this Regional Board, at a public meeting held on September 18, 1995, reviewed the tentative Order, considered all factors in the case, and adopted Order No. 95-131 and Monitoring and Reporting Program CI No. 7597 (copy attached) relative to the discharge.

Please reference all technical and monitoring reports to our Compliance File No. 9597. We would appreciate it if you would not combine other reports, such as progress and technical reports, with your monitoring reports, but would submit each report as a separate document.

Should you have any questions, please call Dixon Oriola at (213) 266-7584.

*Rodney H. Nelson*

RODNEY H. NELSON  
Senior Engineering Geologist  
Landfills Unit

enclosures

cc: see Mailing List

**AMERICAN REMEDIAL TECHNOLOGIES, INC.**  
**Mailing List**

**Jorge Leon; Office of Chief Counsel**

**Elizabeth Haven; State Water Resources Control Board**

**Charlene Herbst; California Integrated Waste Management Board**

**Richard Hanson; County of Los Angeles, Department of Health Services**

**Chris Nagler; Department of Water Resources**

**Department of Toxics Substances Control, Long Beach**

**Carol Williams; Main San Gabriel Basin Watermaster**

**Carlton McMiller; City of Lynwood, Planning Commission**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**ORDER NO. 95-131  
WASTE DISCHARGE REQUIREMENTS  
FOR  
AMERICAN REMEDIAL TECHNOLOGIES, INC.  
JORGENSEN STEEL FACILITY, LYNWOOD  
(File No. 95-029)**

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

1. American Remedial Technologies Inc., (Discharger) has submitted a complete Report of Waste Discharge for the storage and treatment of non-hazardous petroleum hydrocarbon-contaminated soils at part of the Earle M. Jorgensen Steel Facility (facility). The facility is located at 10650 Alameda Street, in the City of Lynwood (Figure 1).
2. Petroleum hydrocarbon-contaminated soils accepted for treatment may include crude oil and refined products, such as leaded and unleaded gasoline, fuel oils, diesel fuel, kerosene, jet fuel, hydraulic and lubricating oils, and other petroleum-based hydrocarbon products with a boiling point of less than 1,000°F.
3. Soils containing petroleum hydrocarbons, where identified and left unmitigated, constitute an ongoing discharge of waste(s) to land that could affect the quality of the waters of the State, pursuant to §13260 of the California Water Code.
4. The Discharger will use enhanced bioremediation and thermal desorption technology to treat incoming petroleum hydrocarbon-contaminated soil to levels that will be protective of surface and ground water. The Discharger will store, treat and export remediated soil to construction projects for reuse as backfill or road base.
5. Enhanced bioremediation technology uses indigenous bacteria, in an oxygen-rich environment, to degrade petroleum hydrocarbons into non-hazardous compounds such as carbon dioxide, water and biomass.
6. The thermal desorption process involves heating the petroleum hydrocarbon-contaminated soils to temperatures necessary to remove the adsorbed petroleum hydrocarbons, thus reducing their concentrations to acceptable regulatory levels.
7. The Discharger's soil treatment operations will be located within an existing building at the Earle M. Jorgensen Steel Company, in Bays 10, 11, and in the Press Bay. The Press Bay will be used for soil load inspection, soil screening, oversize debris crushing, and the storage of a maximum of approximately 19,600 tons (13,500 cubic yards[cy]) of non-hazardous petroleum hydrocarbon-contaminated soil in a pit measuring 100 feet by 87 feet and 8 feet deep. Bay 10 will house a Thermal Desorption System. Bay 11 will be used as the enhanced Bioremediation Treatment Center, and as the storage area for treated

soil. The north wing of Bay 11 may also be used for storage of incoming soil.

8. The South Coast Air Quality Management District (SCAQMD) has set a limit of 8,000 tons (5,500 cy) for soil contaminated with volatile organic compounds, including benzene, toluene, ethylbenzene and the xylenes (BTEX). Other petroleum hydrocarbon-contaminated soils will be limited to 11,600 tons due to storage limitations.
9. Prior to thermal treatment, the soil will be screened under a hood, as required by the SCAQMD, to remove material greater than two inches in diameter. The oversized material will be segregated until it goes through a pulverizing stage to reduce particle size. A loader will transfer the petroleum hydrocarbon-contaminated soil to the thermal desorption unit.
10. The emitted gases from the thermal desorption unit will be destroyed in a thermal oxidizer. Carbon dioxide and dust, and steam exiting the thermal oxidizer will be cooled and ducted into a baghouse for particulate removal. Collected particulates will be returned to the soil discharge system, where they will be blended with the treated soil, cooled, and discharged. Water will be added to the treated soil for dust control and recompaction purposes.
11. The thermal desorption unit will operate at a maximum capacity of 50 tons (35 cy) per hour, and consist of four main components:
  - A. Feed system and rotary kiln,
  - B. Thermal oxidizer, air-to-air cooler, and baghouse,
  - C. Control house with safety, temperature, and data collection devices,
  - D. Soil discharge system.
12. The thermal desorption unit will be also operated under two SCAQMD permits. Permit A/N 296321 regulates construction and operation of the thermal desorption and enhanced bioremediation units. Permit A/N 300199 regulates soil handling. These permits restrict plant operation to 16 hours per day. Screening and stockpiling activities will occur up to 24 hours per day. Contaminated soil will be accepted between the hours of 6:00 a.m. to 8:00 p.m., Monday through Saturday.
13. The Press Bay, and Bays 10 and 11, will be lined with:
  - A. A six-inch thick re-enforced concrete layer,
  - B. A sealed double Permalon membrane liner system, and
  - C. A vapor sensing system, enclosed within the membrane liner, in which a constant vacuum will be maintained.

The vapor sensing system is designed to detect and monitor the presence of petroleum hydrocarbons beneath the facility, should they penetrate the top soil layer and top membrane liner.

14. The facility overlies ground water in the Central Basin of the Los Angeles Coastal Plain Groundwater Basin, in the Los Angeles Coastal Plain Hydrologic Area. The facility is located in Section 3, Township 3 South, Range 13 West, San Bernardino Base & Meridian. The facility's latitude and longitude are 33° 56' 15" and 118° 13' 15", respectively.
15. The Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 13, 1994. This Water Quality Control Plan contains water quality standards for surface water and ground water within the Los Angeles Coastal Plain Hydrologic Area. The requirements contained in this Order, as they are met, will be in conformance with the beneficial uses and water quality objectives of the Water Quality Control Plan.
16. The beneficial uses of ground water in the Central Basin of the Los Angeles Coastal Plain Groundwater Basin, are for municipal supply, agricultural supply, industrial process supply, and for industrial service supply.
17. The City of Lynwood approved a Negative Declaration on January 11, 1995, in accordance with the California Environmental Quality Act (CEQA) [Public Resources Code, Division 13, Chapter 3, §21000 et seq.].

The Regional Board has notified the Dischargers, and interested parties 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 these waste discharge requirements.

IT IS HEREBY ORDERED that the Discharger, American Remedial Technologies, Inc., shall comply with the following:

A. ACCEPTABLE MATERIAL

1. Only non-hazardous soil may be accepted, stored, or treated at this facility.
2. A waste-load checking program, approved by the Executive Officer, must be in place prior to the acceptance of petroleum hydrocarbon-contaminated soil. The

purpose of the program is to ensure that only petroleum hydrocarbon-contaminated soils, meeting the requirements of this Order, are accepted at the facility.

**B. SOIL STORAGE & CLASSIFICATIONS**

1. The storage area for incoming petroleum hydrocarbon-contaminated soil shall be constructed, maintained, and operated in compliance with the Classification and Siting Criteria consistent with a Class II waste management unit for designated waste, specified in Chapter 15, §2530 and §2532, including a leak detection system. This is necessary because incoming petroleum hydrocarbon-contaminated soil could be a designated waste as defined by Chapter 15, §2522. The storage area shall be capable of storing the maximum permitted quantities of in-coming petroleum hydrocarbon-contaminated soil.
2. Contaminated and treated soil shall be confined to areas specifically designed and constructed for their containment and storage. Except during thermal treatment, the petroleum hydrocarbon-contaminated soil, including soils undergoing enhanced bioremediation, shall be covered at all times by plastic sheeting.

**C. TREATMENT LIMITATIONS**

1. In order for the treated soil to be reused for construction backfill, the Discharger shall certify that the treated soil meets cleanup limits established by this Regional Board for a specific site, or that the total concentration in soil, for any constituent required to be monitored for by this Order, is no greater than the Maximum Contamination Level (MCL), established by the U.S. EPA or the State of California, for that same constituent for drinking water.
2. In order for the treated soil to be reused for road base, the Discharger shall certify that the treated soil meets the following limits:

TRPH	1,000	mg/Kg
TPH as diesel	100	mg/Kg
TPH as gasoline	10	mg/Kg
Benzene	MCL drinking water equivalent	(mg/Kg)
Toluene	"	"
Ethylbenzene	"	"
Xylene	"	"

3. For treated soil which does not meet the criteria for reuse, the soil shall be disposed of at a Class III Landfill, and shall meet the following limits:

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American Remedial Technologies, Inc.  
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TRPH	1,000	mg/Kg
TPH as diesel	100	mg/Kg
TPH as gasoline	100	mg/Kg
Benzene	0.1	mg/Kg
Toluene	10	mg/Kg
Ethylbenzene	68	mg/Kg
Xylene	62	mg/Kg

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(Limits from California Regional Water Quality Control Board Order # 91-93)

4. Petroleum hydrocarbon-contaminated soils which cannot be successfully treated to the above-specified limits must be removed to a legal point of disposal. 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 which is in full compliance therewith.
5. Soil analyses shall be conducted after treatment, as specified in the Monitoring and Reporting Program, to ensure that the treatment process has been effective, and that the soil reuse will have no adverse effect on the beneficial uses of surface or ground water.

**D. PROHIBITIONS**

1. No discharge to land of radioactive or hazardous wastes, as defined in Title 22, California Code of Regulations, Division 4.5, §66261.3, shall be permitted, and is specifically excluded from this Order. Any discharge of wastes at any point(s) other than specifically described in this Order, is prohibited, and will constitute a violation of the Waste Discharge Requirements.
2. No petroleum hydrocarbon-contaminated soil accepted for treatment shall contain free liquid, as determined by the paint filter test, EPA Method 9095, SW-846.
3. No part of this facility shall be located within 10 feet of historical or anticipated high ground water, whichever is the greatest.
4. Treated soil that meets the criteria for reuse off-site shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
5. No condition of pollution or nuisance, as defined by §13050 of the California Water Code, shall be caused by the handling, storage, treatment, and reuse of the wastes, or from any operation conducted in association with treatment operations specified by this Order.

6. The discharge of wastes or waste constituents to ground water, surface water, or surface water drainage courses, is prohibited.
7. No petroleum hydrocarbon-contaminated soil accepted for treatment shall contain waste oil, as defined in Title 22, California Code of Regulations, Division 4, Article 5, §66268.29(f).

**E. OPERATIONAL REQUIREMENTS**

1. All contaminated soil shall be treated to concentrations equal to, or below, those established by this Order.
2. All required Federal, State, and local permits shall be obtained by the Discharger prior to commencing the treatment operation. These permits shall be in full effect, and in compliance therewith at all times.

**F. GENERAL PROVISIONS**

The following provisions shall apply:

1. Vadose zone monitoring, as proposed in the Report of Waste Discharge, shall be in place and functioning prior to starting storage and treatment operations. In the event that organic vapors are detected during vadose zone monitoring, the Discharger must notify this Regional Board by telephone, within 24 hours, followed by written notification within one week, as to the location of the detected vapors, and the action to be taken to correct the vapor leak(s).
2. The Discharger shall maintain a copy of this Order at the facility so as to be available at all times to personnel operating the facility.
3. The Discharger shall file a report with this Regional Board of any material change, or proposed change in the character, location, or volume of the discharge or treatment process, 120 days prior to the proposed change, in accordance with §13260 of the California Water Code.
4. In the event of any change in name of the Discharger, control, or ownership of land, or treatment facilities, the Discharger shall:
  - a. Notify this Regional Board in writing of such a change;
  - 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.



5. Ninety days prior to cessation of storage and treatment at this facility, the Discharger shall submit a technical report to the Regional Board describing the methods and controls to be used to ensure protection of water quality during final operations, and with any proposed subsequent use of the facility. Such methods and controls shall comply with the foregoing waste discharge requirements. The report shall be prepared under the direct supervision of a California-Registered Geologist or Civil Engineer, or a California-Certified Engineering Geologist.
6. The Discharger/property owner(s) shall have a continuing responsibility for correcting any problems which may arise as a result of this waste discharge, or as a result of water applied to this facility during subsequent use of the land for purposes other than those specified herein.
7. These waste discharge requirements do not exempt the Discharger of this facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize the activities of the Discharger, and they leave unaffected any further constraint on the operation of this which may be contained in other statutes, or required by other agencies.
8. In accordance with §13267 of the California Water Code, the Discharger shall furnish, under penalty of perjury, technical monitoring program reports. Such reports shall be submitted in accordance with specifications prepared by the Executive Officer; which are subject to periodic revisions, as warranted.
9. According to §13263 of the California Water Code, these waste discharge requirements are subject to periodic review and revision by this Regional Board.
10. These waste discharge requirements may be revised at a later date, as necessary, to include ground water monitoring, or for any other reason as determined by this Board.
11. The Discharger must notify this Regional Board by telephone, within 24 hours, followed by written notification within one week, in the event they are unable to comply with any of the conditions of this Order because of events such as:
  - a. Breakdown of soil treatment equipment;
  - b. Accidents caused by human error or negligence;
  - c. Natural disasters.
12. The Regional Board and other authorized representatives shall be allowed:
  - a. Entry upon premises where the fixed facility is operating, or where records

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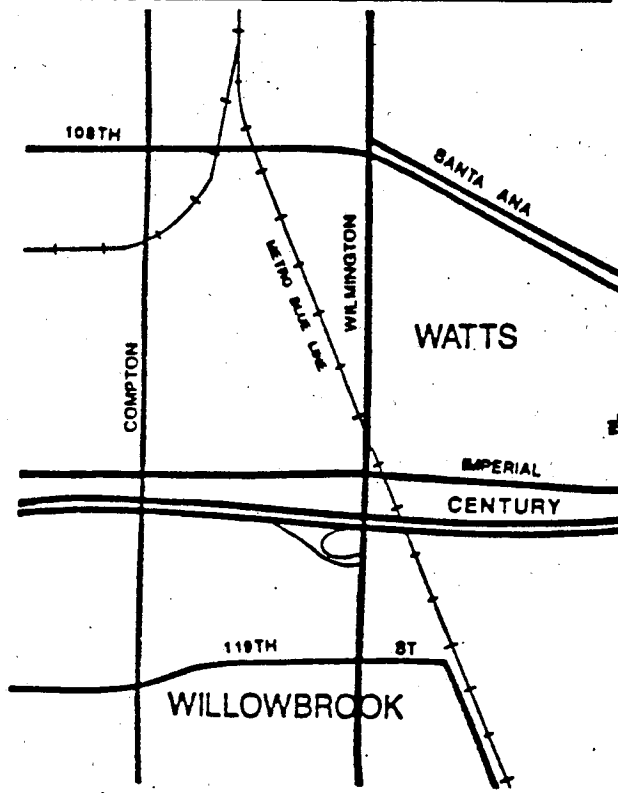
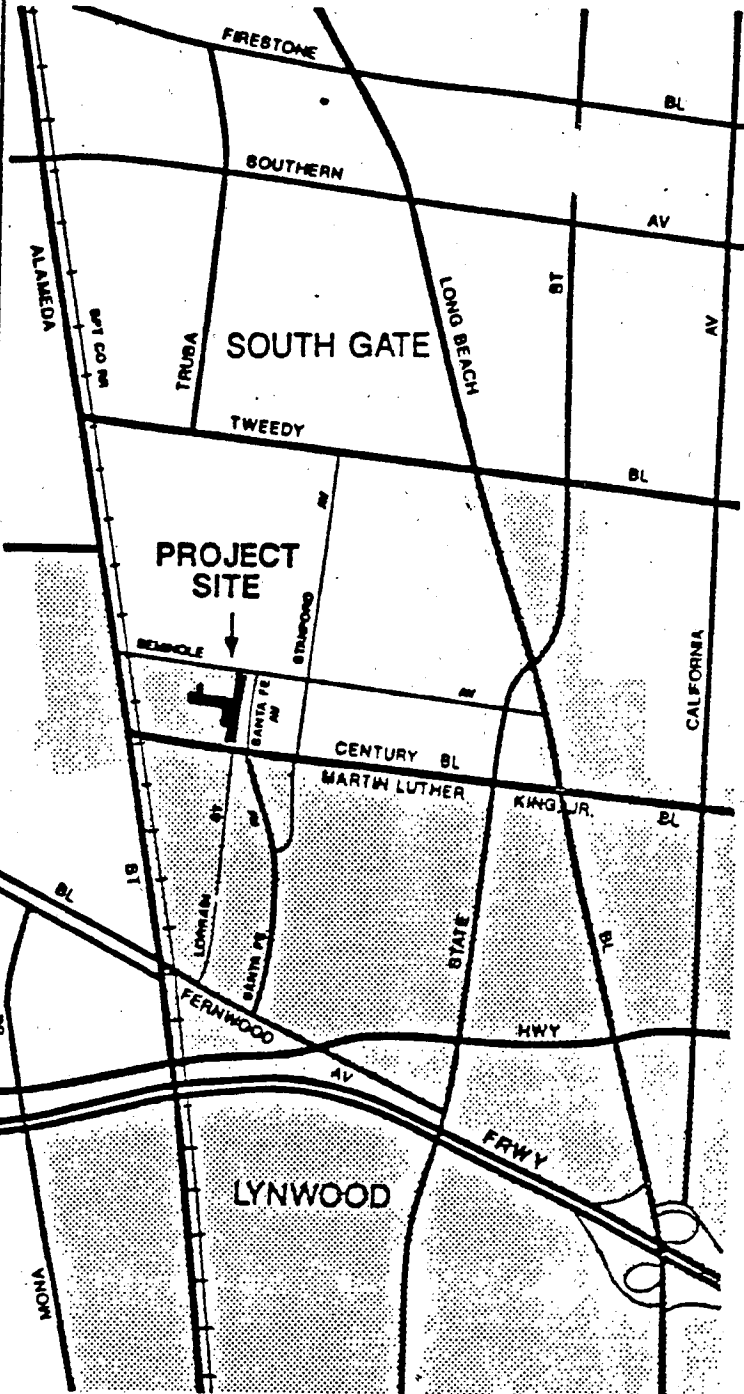
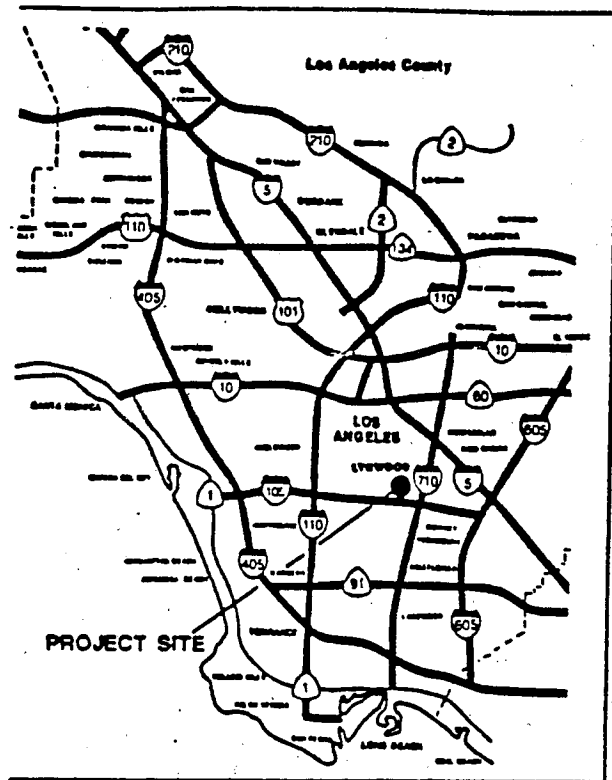
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- are kept under the conditions of this Order;
- b. Permission to copy any records that are kept under the conditions of this Order;
  - c. To photograph, sample, and monitor for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
13. This Order incorporates the attached "Standard Provisions Applicable to Waste Discharge Requirements". If there is any conflict between provisions stated herein and the "Standard Provisions Applicable to Waste Discharge Requirements", these provisions stated herein will prevail.
14. The requirements of the attached Monitoring and Reporting Program are hereby made a part of this Order.

I, Robert P. Ghirelli, 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 September 18, 1995.

*Robert P. Ghirelli*

ROBERT P. GHIRELLI, D.Env.  
Executive Officer  
/DAO



NO SCALE



FIGURE 1

LOCATION MAP

American Recycling Technologies Project