

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION IX
HAZARDOUS WASTE MANAGEMENT DIVISION
FIVE-YEAR REVIEW (TYPE IA)
OPERATING INDUSTRIES, INC. LANDFILL
MONTEREY PARK, CALIFORNIA**



CDM FEDERAL PROGRAMS CORPORATION
a subsidiary of Camp Dresser & McKee Inc.

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May 30, 1995

**CDM Federal Programs Corporation
Prepared for: USEPA and USACE**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

June 21, 1995

Glenn Anderson
Texaco, Inc.
10 Universal City Plaza
Universal City, CA 91608-1097

Rajeev Sane
UNOCAL Corporation
1201 West Fifth Street
Los Angeles, CA 90017

Dear Messrs. Anderson and Sane:

I am providing you with the following documents which EPA has recently completed regarding the Operating Industries, Inc. Superfund Site:

- *Evaluation of Candidate Locations for the Planned Thermal Destruction Facility at the OII Landfill Superfund Site*, dated June 19, 1995
- *Five-Year Review (Type IA), Operating Industries, Inc. Landfill*, dated May 30, 1995

These documents are currently being made available to the public through the local information repositories as well as sent to the OII Interagency Committee. In addition, an OII Update fact sheet will be distributed later this month which discusses both of these documents and indicates EPA's preference, based on the evaluation, for the thermal destruction facility to be located on the North Parcel, east of the Leachate Treatment Plant.

Please feel free to call me at (415) 744-2399 if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Ullensvang".

Brian Ullensvang
OII Project Manager

enclosures

cc: Dan Boone, Boone & Associates (w/ encl.)

**U.S. Environmental Protection Agency
Region IX
Hazardous Waste Management Division
Five-Year Review (Type IA)
Operating Industries, Inc. Landfill
Monterey Park, California**

1.0 Introduction

Authority Statement. Purpose. The Operating Industries, Inc. Landfill (the OII Site), a hazardous waste landfill located in Monterey Park, California, was placed on the National Priorities List in May 1986. The U.S. Environmental Protection Agency (EPA) has been conducting response actions at the site since that time to provide protection of human health and the environment. EPA Region IX conducted this review pursuant to CERCLA Section 121(c), 42 U.S.C. § 9621(c), NCP Section 300-400 (f) (4) (ii), and OSWER Directives 9355.7-02 (March 23, 1991) and 9355.7-02A (July 26, 1994). It is a statutory review, required 5 years after initiation of implementation of the first operable unit at OII.

The purpose of this five-year review is to document that the remedial actions specified for the OII Site remain protective of public health and the environment and are functioning as designed. This document will become a part of the Site File. This is a “Type IA” review, as defined in OSWER Directive 9355.7-02A and is applicable to the OII Site as remedial actions are currently ongoing.

The Five-Year Review report consists of five sections, including this Introduction. Section 2.0, Remedial Objectives, contains a discussion of the remedial objectives identified in the three Records of Decision (ROD). The work being performed to fulfill these objectives, and the current status of these activities, will be included in Section 2.0. The third section, Recommendations, will present EPA’s plans for additional work to be performed at the Site in addition to the work required by the three RODs. A statement of the protectiveness of the remedies identified at the site will be presented in Section 4.0. The report concludes with a schedule for the next five-year review, presented in Section 5.0.

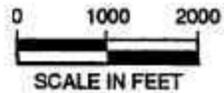
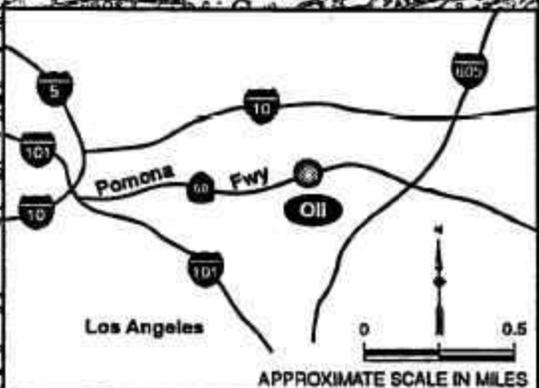
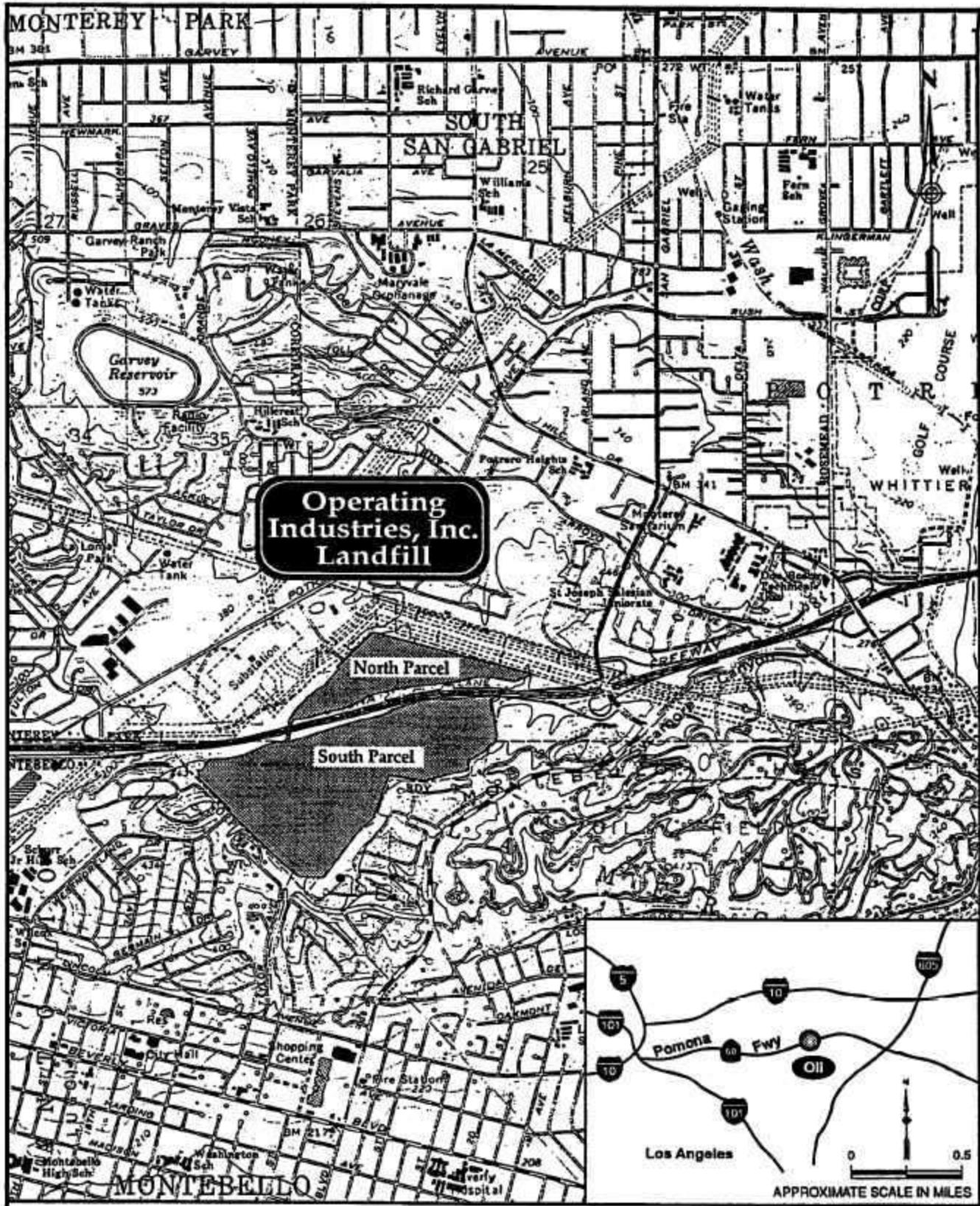
1.1 Background

Site Characteristics. The OII Site is located at 900 Potrero Grande Drive in the City of Monterey Park (Figure 1-1) and is situated in the central La Merced (also known as Montebello) Hills of the Los Angeles Basin. The San Gabriel Valley lies to the north of the hills and the Los Angeles Coastal Plain to the south. The landfill property covers 190 acres and is divided by California Highway 60 (Pomona Freeway). The 45 acres to the north of the freeway are referred to as the North Parcel and the 145 acres of the site south of the freeway are called the South Parcel. The neighboring city of Montebello borders the South Parcel.

The Monterey Park Disposal Company began landfilling operations in 1948 in an area of the Site that was originally a sand and gravel quarry. Operating Industries, Inc., the current owner, purchased the landfill in 1952 and continued disposal operations. Throughout its operating life, residential and commercial refuse, industrial wastes, liquid wastes, and various hazardous wastes were disposed at the landfill. The landfill operators stopped accepting hazardous liquid wastes in January 1983 and other liquid wastes in April 1983. Landfilling operations ceased in October 1984. In January 1984, before disposal operations ended, the State of California placed the OII Site on the California Hazardous Waste Priority List. That same year, EPA proposed the OII Site for the federal National Priorities List of Superfund sites. In May 1986, the OII Site was placed on the National Priorities List, and EPA assumed responsibility for activities at the landfill.

EPA began the remedial investigation/feasibility study at the OII Site in 1986. To efficiently manage the problems at the OII Site and to address the most apparent environmental problems prior to implementation of the final remedy, EPA identified three operable units for remedial action in advance of selection of the final remedy.

The term “operable unit” refers to a discrete action taken at a Superfund site to address specific site problems. At the OII Site, the three operable units identified to date pertain to site control and monitoring activities; leachate management; and landfill gas control and landfill cover. Individual feasibility studies and Records of Decision have been completed and signed by EPA for each of these three operable units. As discussed in Section 3.0, the ROD for final remedy is scheduled for 1996.



Source: USGS 7.5 minute
El Monte Quadrangle 1966
Photorevised 1981

Figure 1-1
Landfill Location Map
Oil Landfill

Section 2.0 Remedial Objectives

Remedial objectives for each operable unit are discussed below. The ROD for each operable unit establishes general objectives which guide the conduct of specific tasks. This section will present both these general objectives and task specific objectives, for each operable unit.

2.1 Operable Unit: Site Control and Monitoring

There are seven major environmental control systems and activities at the OII Site that require operation, maintenance, inspection, and monitoring on a continuous basis: gas extraction and air dike systems, leachate collection system, irrigation system, access road system, storm water drainage system, site security, and slope repair and erosion control. In the ROD for the site control and monitoring Operable Unit (EPA, 1987a), EPA decided that full-time site control and monitoring should be undertaken, providing daily operation, repairs and replacements of control system components when necessary, and system improvements, until selection of the final remedy. The general configuration of the OII Site, as it exists, is depicted in Figure 1-2. Some of the major landfill structures, including roadways, environmental control systems, and monitoring instrumentation, are shown on the figure.

The ROD for the site control and monitoring Operable Unit (EPA 1987a) established three objectives which guided the development of the selected remedial alternatives.

1. Site Control and Monitoring (SCM) remedial alternatives must be easily and rapidly implementable. The interim alternatives must be consistent with the final solution.
2. Remedial actions which permanently reduce the volume, toxicity, or mobility of the contaminants at the OII Site are preferred.
3. Remedial actions must be cost-effective for the interim period.

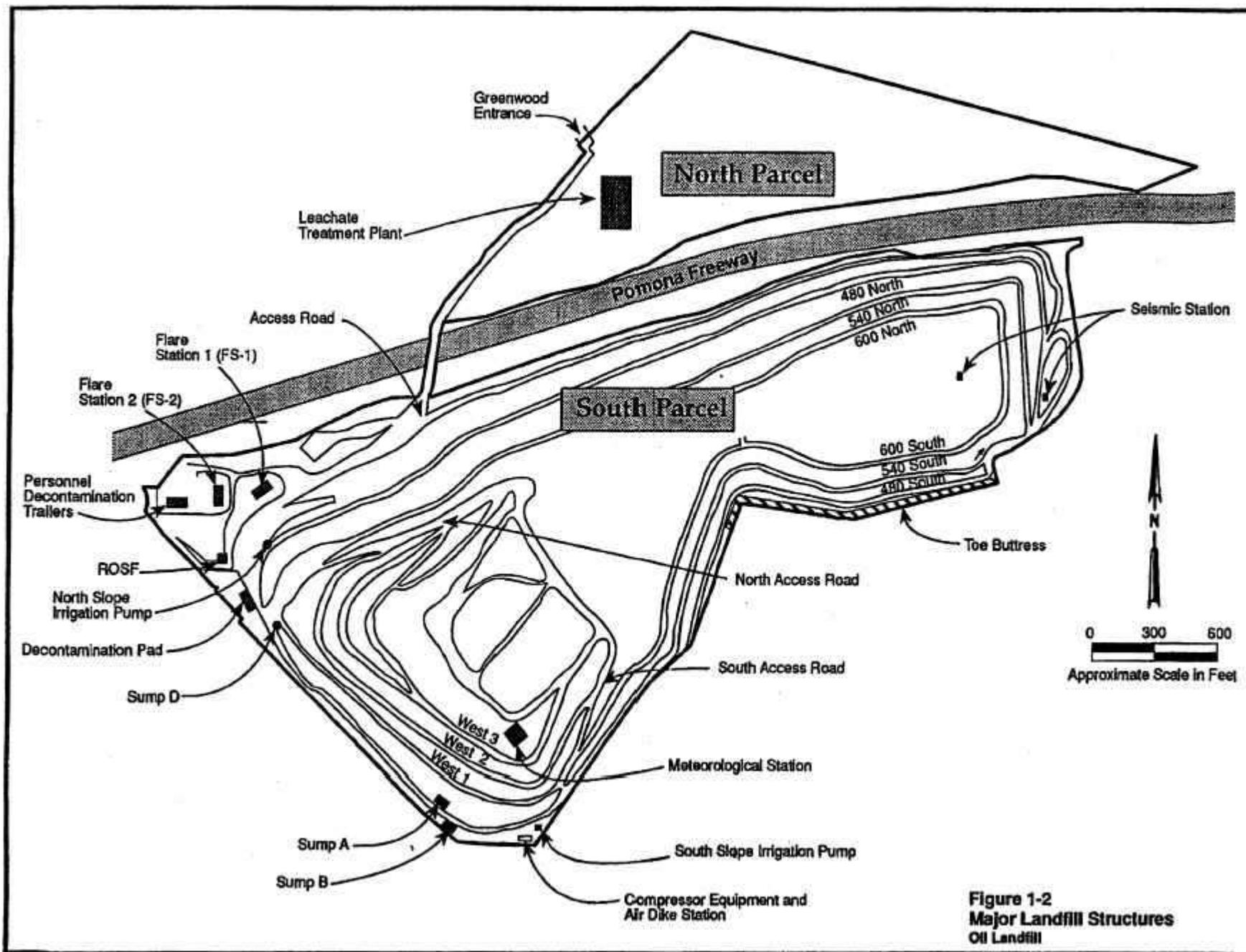
Site control and monitoring activities have been undertaken which are designed to stabilize the landfill during the period prior to the implementation of the final remedy. The objective,

for this interim period, of activities associated with the gas control system are to minimize the uncontrolled release of landfill gas through gas emissions from the landfill surface and off site gas migration through subsurface soil. The gas control system is also operated to prevent or minimize the occurrence of underground fires. A final objective is maximizing flare station landfill gas destruction efficiency.

These objectives have been met, for purposes of this interim Operable Unit, through the efficient operation and monitoring of the gas control system since EPA assumed responsibility for the OII Site. Significant improvements have been made to the gas control system components over the past five years. Flare station operational efficiency and reliability have been increased through the upgrade of station equipment including blowers, flares, and controls. Replacement of extensive sections of gas collection system piping and repairs of collection wells have provided increased control over the release of landfill gas.

The primary objectives of the leachate control, maintenance, and monitoring activities are to transfer collected leachate and liquids to aboveground storage tanks, pretreatment facilities, or conveyance systems; mitigate potential off site surface seeps immediately upon discovery; and mitigate potential off site subsurface seepage, if possible. These objectives are being satisfied through the effective monitoring and operation of the leachate management system. Liquids transfer and storage capabilities have been improved over the past six years with the construction of new leachate sumps A, B, and D. In addition, extensive upgrades to the leachate and condensate conveyance systems, including the pump, piping, and control components, have resulted in the increased efficiency of liquids transfer operations at the site. Seep mitigation measures have been implemented, consisting of the installation of collection trenches and conveyance equipment, which have mitigated both surface seeps and reduced potential for subsurface seepage.

The other five environmental control systems under this interim Operable Unit (irrigation system, access road system, stormwater drainage system, site security, and the cover system), are being effectively operated and maintained, resulting in an increased stabilization of the landfill. Some examples of the activities undertaken over the past five years include the construction of a new drainage system on the top deck of the landfill, a revamping of the



**Figure 1-2
Major Landfill Structures
Oil Landfill**

entire irrigation system, including the addition of a new water supply pump, and the ongoing maintenance of the cover system through the placement of clean fill material.

In summary, the remedial objectives established in the site control and monitoring ROD Operable Unit are being effectively met. Activities consistent with the final remedy, undertaken at the site over the past five years, have been implemented and are being operated to achieve an overall stabilization of the landfill through the control of gas emissions, leachate seepage, and stormwater runoff.

2.2 Operable Unit: Leachate Management and Leachate Treatment Plant

EPA's selected remedy for management of leachate collected at the OII Site, until final remedy, as presented in the ROD for the leachate management Operable Unit (EPA, 1987b), is treatment of the leachate at a treatment plant located at the landfill. This plant has been built on the North Parcel and consists of influent storage and equalization, biological reactors, chemical precipitation, sand filtration, granular activated carbon adsorption, effluent storage and discharge, foul air system, storm water holding system, and sludge disposal system. The ROD specified that treated leachate be disposed of in facilities operated by the County Sanitation Districts of Los Angeles County.

The ROD for the leachate management Operable Unit (EPA, 1987b) established three objectives which guided the development of the selected remedial alternative.

1. The remedial action must be easily and rapidly implementable and have the potential to be integrated into the final remedy for the site.
2. The alternatives must be flexible in order to manage both short- and long-term variations in the leachate collection rate and in the chemical characteristics of the leachate.
3. Remedial actions which included treatment to permanently and significantly reduce the volume, toxicity, or mobility of OII leachate contaminants were preferred.

EPA's selected remedy, which addressed the above remedial objectives for this Operable Unit, is treatment of the leachate, pending selection of the final remedy, at a treatment plant located at the landfill. The leachate treatment plant has been designed and constructed. It includes both biological and physical/chemical processes to provide the flexibility to manage the variations in the chemical characteristics of the leachate and to significantly reduce the toxicity of leachate contaminants. The leachate treatment plant is configured to allow expansion, if needed, to treat increased leachate flows and additional liquids from the site. Liquids from other sites will not be accepted for treatment at the OII plant.

The leachate treatment plant is currently operating in the start-up phase. All liquids discharged from the plant meet the standards established by the County Sanitation Districts of Los Angeles County. Start-up is anticipated to be completed during 1995 and regular long-term operation of the plant will follow. Operation of the plant will satisfy the remedial objectives established in the ROD for this Operable Unit.

2.3 Operable Unit: Landfill Gas Migration Control and Landfill Cover

The original and amended ROD for this Operable Unit (EPA, 1988a and 1990a) together define a landfill gas migration control remedy to collect and destroy landfill gas that would otherwise be released from the landfill. In general, the work specified in the original and amended ROD includes predesign, design, construction, compliance testing, operation, maintenance, and monitoring of a landfill gas control system; a landfill cover system; and a surface water management system for the OII Site. The new landfill gas system will supplement, partially incorporate, and partially replace the existing landfill gas system. The amendment to the ROD also includes design and construction of a landfill cover to reduce surface emissions of landfill gas, reduce oxygen intrusion into the refuse, reduce surface water infiltration, minimize slope erosion, and improve aesthetics.

The original ROD (EPA, 1988a) and the amended ROD (1990a) established the following remedial objectives for the selected remedial alternative.

1. Limit methane concentration to less than 5 percent at the site boundary.

2. Control surface emissions of landfill gas such that total organic compound concentration is less than 50 ppm on the average and methane concentration is less than 500 ppm at any point on the surface.
3. Minimize odor nuisance. This is directly associated with the reduction of surface emissions.
4. Attain applicable or relevant and appropriate standards, requirements, criteria, or limitations under federal and state environmental laws, according to the terms of CERCLA Section 121, 42 U.S.C. §9621.
5. Expedite implementation by the sequencing and phasing of remedial activities to rapidly mitigate identified gas problems.
6. Provide consistency with final remedies, considering potential effects of future remedial activities in developing alternatives to mitigate and minimize identified gas problems.
7. Integrate gas operations and optimize migration control by integrating perimeter and interior gas extraction systems.
8. Use resource recovery technologies to the maximum extent practicable, if cost-effective.

Additional remedial objectives specific to the cover component of the Operable Unit include reducing oxygen intrusion into the refuse, reducing surface water infiltration, limiting slope erosion, and improving aesthetics.

The selected alternative is currently in the predesign and design phase of the project. The remedial objectives identified above are being applied to the proposed system. The ROD as amended specifies performance-based requirements which must be met. Construction and start-up of the gas control, landfill cover, and surface water management systems are

tentatively scheduled to be completed in 1998. The extent to which the remedial action fulfills objectives established in the amended ROD will be evaluated following construction.

3.0 Recommendations

EPA is currently developing the final remedy, which will address contaminated groundwater, soils, leachate, and landfill gas, and will include long-term operation and maintenance of all environmental control facilities at the landfill. The final remedy will incorporate work performed under the three operable units. The remedial investigation for the final remedy has been completed. EPA is currently developing the baseline risk assessment and feasibility study for the final remedy for the OII Site. Remedial objectives will be formulated as part of this process. The ROD for the final remedy is scheduled to be signed in 1996.

No additional response actions at OII have been identified at this time as part of this 5-year review.

4.0 Statement of Protectiveness

The final remedy for the OII Site has not yet been selected, and therefore is not at this time protective of human health and the environment. However, the remedies implemented for the site control and monitoring and leachate management Operable Units meet or exceed the level of protectiveness of human health and the environment established in the Records of Decision for these Operable Units. The remedial objectives defined in the amended ROD for the gas control and landfill cover Operable Unit, which provide protection of human health and the environment, are being implemented in the design of the environmental control systems. EPA is taking steps to develop the final remedy which will be protective.

5.0 Next Five-Year Review

The next five-year review will be conducted by August 1997. At that time it is anticipated that the final remedy will be under design and construction.