7.0 Technical Assessment

This section evaluates the functioning of the remedy as intended, the current status of assumptions, and new information affecting the remedy.

7.1 Functioning of the Remedy as Intended by Decision Documents

The review of the documents, ARARs, results of the site inspection, and site interviews indicates that the remedy is functioning as intended by the RODs. For the remedial actions that have been implemented relating to cover, leachate, LFG, and surface water on the South Parcel, remedial action performance, O&M, optimization, early indicators of potential issues and implementation of institutional controls are being met.

There are, however, some outstanding remedial action items that require completion. These are construction of a landfill cap and associated LFG control wells on the North Parcel and implementation of PLCs, as necessary. Until these remedial activities are completed, the remedy is not fully functioning as intended by the RODs. The identified issues will be addressed and will be re-evaluated during the next 5-year review.

In addition, implementation of the offsite institutional controls is in question. Although NCI has prepared a Final Access and Institutional Controls Work Plan, which was submitted to USEPA in March 2003 and approved in May 2003, the 5-year review results showed that this work has not been fully implemented based upon limited available documentation relating to current status of the institutional controls. NCI was to take the lead in obtaining the covenants for land on which OII-related monitoring wells existed in 2003 or where the wells might be placed in the future. NCI was not able to produce covenant agreement documentation for review and evaluation. In addition, the plan is to be updated every 2 years, in accordance with the eighth partial Consent Decree. Although NCI indicated that the plan is currently undergoing revision, it had not been completed at the time of the 5-year review.

7.2 Current Validity of Assumptions Used During Remedy Selection

During this 5-year review, the assumptions concerning exposure to constituents of concern and toxicity data and changes in remedial action objectives were evaluated. No current or potential changes have been identified during this 5-year review process.

In order to evaluate performance as it relates to progress toward achieving natural attenuation goals, groundwater monitoring wells are sampled regularly, as outlined in the LTGMP. This performance monitoring continues to yield information regarding the progress of natural attenuation in areas downgradient of the landfill where PLC actions will be installed to cut off the source of water contamination. Conclusions relating to natural

attenuation can only be made in general terms regarding the progress and spatial and temporal trends observed in water quality downgradient of the POC. According to NCI, future annual groundwater monitoring and evaluation reports that are produced after the PLC actions have been completely installed and implemented will include conclusions regarding the rate of natural attenuation and quantitatively evaluate the progress in terms of the expected remediation time frames and constituent travel distances. The validity of the assumptions that have been made that relate to reaching cleanup goals by natural attenuation can not be fully assessed at the time of this 5-year review due to lack of data.

7.2.2 5-year Regulatory Review of ARARs

A review of ARARs and other standards To Be Considered was conducted for the selected remedy at the OII Landfill Superfund Site. The review was conducted to determine if changes to criteria To Be Considered have occurred since issuance of the four RODs, as amended, and associated Consent Decrees from 1987 through 2002, that might affect current protectiveness of the selected remedies.

The following general requirements were identified as ARARs in the 1988 and 1990 amended gas migration control operable unit ROD. The selected remedy for this operable unit addresses LFG migration control and landfill cover. While certain closure and post-closure requirements are applicable, this remedial action does not address all closure and post-closure ARARs. The 1996 Final ROD identifies and addresses ARARs related to additional remedial actions and these are discussed separately below. A list of all the ARARs from the 1990 and 1996 RODs is found in Appendix B.

7.2.2.1 Federal Requirements

- **Resource Conservation and Recovery Act** – Selected sections from 40 Code of Federal Regulations (CFR) Parts 264 and 265, Standards and Interim Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
- **Clean Water Act** – The Clean Water Act National Pollutant Discharge Elimination System (NPDES) under 40 CFR Part 125 sets forth requirements for permits for the discharge of pollutants from any point source into waters of the United States.

7.2.2.2 State Requirements

- **SCAQMD, Rules and Regulations** – Relates to air discharge and emission standards for specific chemicals and requires the treatment facilities at OII to meet all substantive conditions stipulated in rules and regulations promulgated by the SCAQMD per the Clean Air Act.
- **Solid Waste Management and Resource Recovery Act of 1972 and Porter-Cologne Water Quality Act** – The first act administered by the California Integrated Waste Management Board was promulgated under California Code of Regulations (CCR) Title 14. The second act administered by the State Water Resources Control Board was promulgated under CCR, Title 23. Selected sections of the CCR, Titles 14 and 23 were considered applicable to the landfill cover component. These generally included establishment of monitoring and control during closure and post-closure of a landfill (Title 14) and precipitation/drainage controls plus seismic design and general landfill

closure requirements (Title 23). In 1993, the primary state statutory provisions governing solid waste management under California Integrated Waste Management Board and the State Water Resources Control Board were combined under Title 27, Division 2 entitled "Consolidated Regulations for Treatment, Storage, Processing or Disposal of Solid Waste."

- **Hazardous Waste Control Law** – Administered by the DOHS. Selected sections from CCR Title 22, which require design of cover systems and drainage controls to function without failure when subject to either precipitation and/or earthquakes.
- **California Air Pollution Control Regulations** – Selected sections from CCR, Title 17 relating to ambient air quality standards for hazardous substances.

7.2.2.3 Federal Requirements

The following general requirements that are different from the 1988/1990 ROD were identified as ARARs in the 1996 final remedy/groundwater operable unit ROD:

- **Safe Drinking Water Act** – CERCLA cleanups should attain water quality criteria if those criteria are relevant and appropriate, considering, among other factors, the designated or potential use of the water resource. For the OII Landfill Site, maximum contaminant levels for site-related constituents in groundwater must be achieved.
- **Migratory Bird Act** - Protects species of native birds in the United States from unregulated "take," which can include poisoning at hazardous waste site.

Tables B-1 and B-2 in Appendix B provide an evaluation of ARARs using the regulations and requirements listed in the RODs as a basis. The evaluation includes a determination of whether the regulation is currently an ARAR or To Be Considered and whether the requirements have been met. Most of the listed ARARs remain applicable or relevant and appropriate to the site, and most are being complied with.

7.2.3 Summary of Changes to Existing ARARs

There have been no changes in the ARARs and no new standards or To Be Considered affecting the protectiveness of remedy. Most of the remedial activities, including design and construction of facilities associated with the South Parcel, have been completed and the ARARs were met. The remedial design at the North Parcel is underway and construction work is expected to begin in late 2006. Therefore, many of the design and construction ARARs associated with landfill cover remain applicable. The promulgated regulations relating to the air emissions under the Clean Air Act and surface water/groundwater regulations promulgated under the Clean Water Act continue to be very prevalent. In addition, the closure and post-closure care requirements for landfills promulgated under the Resource Conservation and Recovery Act are significant for both the pending closure at the North Parcel and associated future post-closure care for both the North and South Parcels.

7.3 Recent Information Affecting the Remedy

There have not been any natural disasters such as weather-related or seismic incidents in recent years that would affect or compromise the protectiveness of the remedy.

8.0 Issues and Recommendations

Three major issues were identified while conducting the 5-year review for the OII Landfill Superfund Site.

Issue

The design and implementation of a final remedial action at the North Parcel has not yet been completed. Under the seventh partial Consent Decree (CD-7), the cleanup action in the 10-acre landfill area was to be integrated with commercial development of the entire 45-acre North Parcel. The work has been considerably delayed due to fact that the original developer, Greenfield, ultimately fell through on its obligation to acquire the property as anticipated under CD-7. In April 2004, USEPA directed the PRPs to implement the North Parcel remedy as an item of Excluded Work under CD-3.

Recommendation

The 5-year review findings have shown that, despite the issue relating to redevelopment of the North Parcel, progress continues to be made toward fulfilling the remedial action requirements set out in both the ROD and Consent Decree. In August 2005, USEPA approved the predesign report that includes evaluation of various alternatives for systems including a cover, landfill gas control, and surface water management. The recommendation is that New Cure Inc. (NCI) continue to move forward toward development of a final design of the North Parcel remedy and, ultimately, its construction.

Issue

Design and implementation of perimeter liquids control actions has not been completed. Although the SWEAP system (installed as part of the landfill gas remedy) is providing some degree of liquids control around the western/southwestern perimeter of the South Parcel, liquids control actions required along the northwestern boundary of the North Parcel and the northeastern corner of the South Parcel are still in the pre-design stage.

Recommendation

NCI should accelerate design and implementation of the perimeter liquids control (PLC) system in the northwestern portion of the North Parcel and, following the completion of necessary groundwater investigative work, in the northeastern corner of the South Parcel. A complete schedule extending through PLC implementation should be developed.

Issue

Although NCI has prepared a Final Access and Institutional Controls Work Plan which was submitted to USEPA in March 2003, the work has not been fully implemented. No deed notification with restrictive covenants has been attached to the landfill parcel title. The USEPA recommends that NCI and the stakeholders execute and record a restrictive covenant for the property that would bind current and future owners and restrict certain

uses of the site itself, including residential use, and prohibit use of the groundwater underneath the site. In addition, the plan is to be updated every two years in accordance with the Eighth Partial Consent Decree. Although NCI indicated that the plan is currently undergoing revision, it had not been completed at the time of the 5-year review.

Recommendation

NCI should complete the update of the Final Access and Institutional Controls Work Plan and provide a status report on its implementation and a schedule for placement of restrictive covenants on the landfill property.

TABLE 8-1
Summary Table - Issues, Recommendations and Follow-Up Actions
Third 5-year Review Report for Oil Landfill Superfund Site, Monterey Park, California

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
North Parcel remedial action is incomplete.	Continue with design work and ultimately construct the final design including cover, landfill gas control and surface water management.	NCI	USEPA	Summer 2007	N	N
PLC implementation is incomplete.	A schedule should be developed that includes accelerated implementation of PLC systems, including expediting completion of the current predesign and groundwater investigative work and the subsequent design phase.	NCI	USEPA	December 2005	N	N
Institutional controls are not fully implemented.	Provide current status of how the Final Access and Institutional Controls Work Plan has been updated and is being implemented.	NCI	USEPA	December 2005	N	Y

9.0 Protectiveness Statement

The final remedy at the OII Landfill Site is expected to be protective of human health and the environment. Portions of the required remedial actions that are still incomplete include capping and landfill gas control at the North Parcel and full implementation of required perimeter liquids control systems. In addition, implementation of institutional controls has not yet been completely fulfilled. Completion of these remedial activities, along with continued groundwater monitoring/evaluation, will allow EPA to predict with greater certainty the number of years required to achieve the groundwater cleanup goals. In the interim, exposure pathways that could result in unacceptable risks are being controlled. Many of the threats at the site have been addressed through capping and capture/treatment of both landfill gas and leachate. Continued operations/maintenance activities and implementation of site security measures will result in further reduction of these threats.

Long-term protectiveness of the implemented remedies will be verified by obtaining additional groundwater samples to fully evaluate potential migration of the constituent plume downgradient/radially and vertically from the landfill. Current data indicate the plume remains relatively stable, and areas where a problem may be evolving are undergoing further investigation and remedial actions. Full implementation of the institutional controls will also prevent exposure to, or the ingestion of, contaminated water.

10.0 Next 5-year Review

The next 5-year review for the OII Landfill Superfund Site will be completed by September 2010.

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