3.4 GEOLOGY AND SOILS

3.4.1 ENVIRONMENTAL SETTING

3.4.1.1 Topography and Soils

The ISOCI facility is located at an average elevation of 180 feet above mean sea level, in the Coastal Plain of Los Angeles within the Peninsular Range Geomorphic Province. The site is located on a large deposit of recent alluvium to the south of the Repetto Hills and Boyle Heights near the east bank of the Los Angeles River. The alluvial soils underlying the site and adjacent area have been observed in subsurface investigations performed in the general area. These alluvial soils consist mostly of sands, silty sands and clayey silts in a moist and firm condition which have increasing density with depth. The alluvial soils are estimated to be approximately 300 to 400 feet thick (Triad, 1995). Natural soils have a moderate expansion potential with changes in moisture content (Triad, 1996).

The ISOCI site and surrounding areas have a generally flat topography. The geology beneath the facility consists of alternating layers of permeable alluvial sediments. The uppermost layer of alluvium is a medium to coarse-grained Quaternary sand. The Quaternary sand is underlain by the Lakewood Formation, which overlies the San Pedro Formation. These alluvial sediments are characterized by poorly sorted silts, sandy silts, and silty sands. The uppermost aquifer beneath the facility is the Exposition Aquifer.

Soil contamination has been identified in two locations at the ISOCI site. Soil contamination has occurred or is suspected due to releases of hazardous materials or wastes since the site operated for a number of years without secondary containment. Some of these units are no longer in operation.

3.4.1.2 Seismicity

The Los Angeles area is considered a seismically active region. The most significant potential geologic hazard at the facility is seismic shaking from earthquakes generated by active faults in the region. Table 3.4-1 identifies those faults considered important to the Southern California areas in terms of potential for future activity. Seismic records have been available for the last 200 years, with improved instrumental seismic records available for the past 50 years. Based on a review of earthquake data, most of the earthquake epicenters occur along the San Andreas, San Jacinto, Whittier-Elsinore and Newport-Inglewood faults (Jones and Hauksson, 1986). All these faults are elements of the San Andreas fault system. There has been no significant damage from an earthquake at the ISOCI facility. However, faults in the area are potential sources of strong ground shaking, including the following: (1) the San Andreas fault; (2) the Newport-Inglewood fault; (3) Malibu-Santa Monica-Raymond Hills fault; (4) the Palos Verdes fault; (5) the Whittier-Elsinore fault; (6) the Sierra Madre fault; (7) the San Fernando fault; (8) the Elysian Park fault; and (9) the Torrance-Wilmington fault (see Figure 3.4-1).

TABLE 3.4-1

MAJOR ACTIVE OR POTENTIALLY ACTIVE FAULTS SOUTHERN CALIFORNIA

FAULT	FAULT LENGTH (miles)	MAXIMUM CREDIBLE EARTHQUAKE	MAXIMUM ACCELERATION (G's)
San Andreas	200+	8.25	0.21
Newport-Inglewood	25	7.0	0.42
Malibu-Santa Monica -Raymond Hill	65	7.5	0.49
Palos Verdes	20	7.0	0.24
Whittier-Elsinore	140	7.1	0.46
Sierra Madre	55	7.3	0.23
San Fernando	8	6.8	0.17
Elysian Park – Montebello	15	7.1	0.27

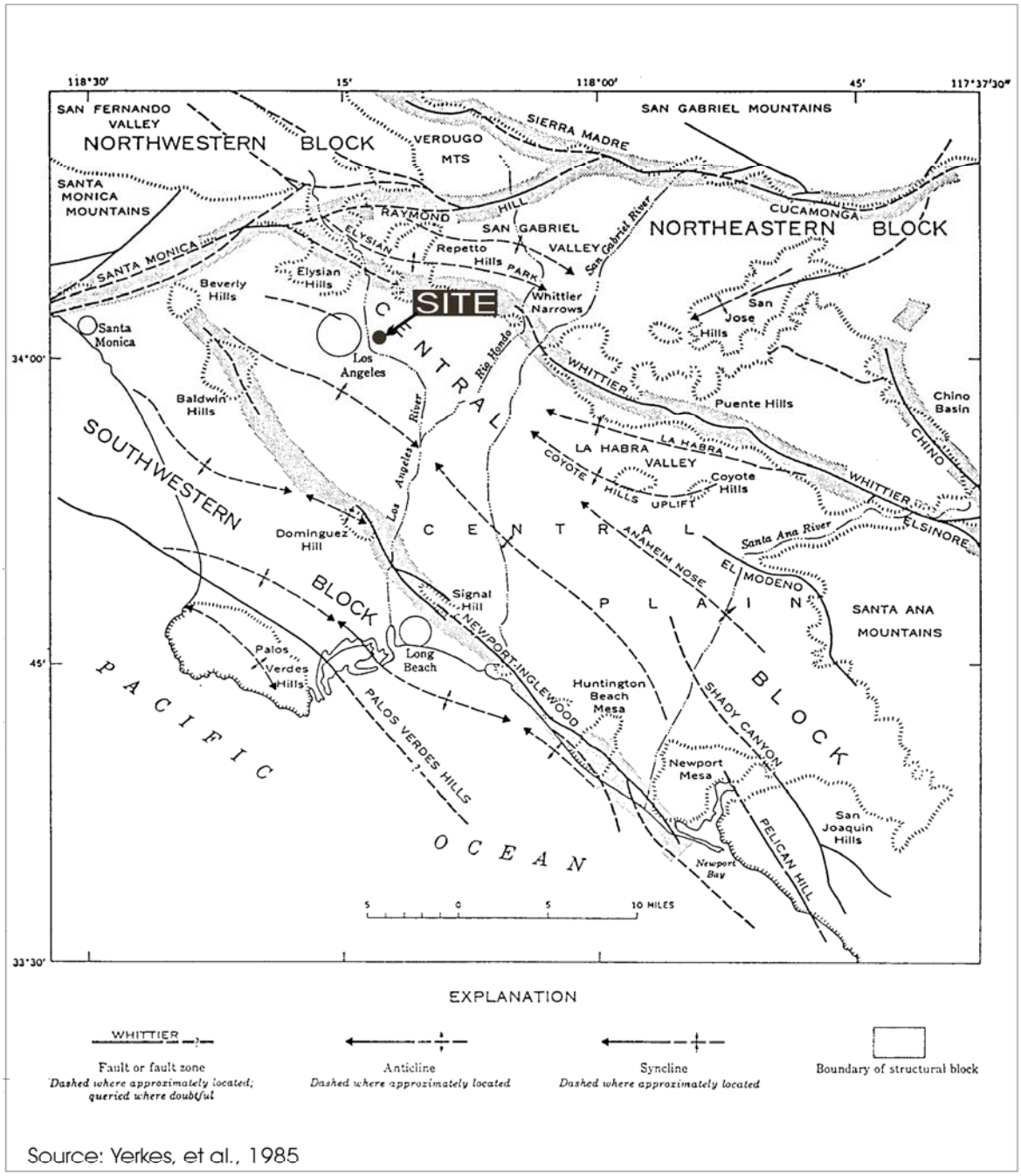
Note: G = acceleration of gravity.
Sufficient data to describe the Torrance-Wilmington and Norwalk faults are not available.

San Andreas Fault Zone

The San Andreas fault is located about 36 miles northeast of the site. This fault is recognized as the longest and most active fault in California. It is generally characterized as a right-lateral strike-slip fault, which is comprised of numerous sub-parallel faults in a zone over two miles wide. There is a high probability that southern California will experience a magnitude 7.0 or greater earthquake along the San Andreas or San Jacinto Fault zones, which could generate strong ground motion in the project area (Reich, 1992).

Malibu-Santa Monica-Raymond Hills Fault Zone

The Raymond Hills fault is part of the fault system that extends from the base on the San Gabriel Mountains westward to beyond the Malibu coast line. The fault has been relatively quiet with no recorded seismic events in historic time; however, recent studies have found evidence of ground rupture within the last 11,000 years.



Source: Yerkes, et al., 1985

N

Geologic Structures in the Southern California Area

FIGURE 3.4-1

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Newport-Inglewood Fault Zone

The Newport-Inglewood fault is about eight miles south of the ISOCI facility and is a major tectonic structure within the Los Angeles Basin. This fault is best described as a structural zone comprising a series of echelon and sub-parallel fault segments and folds. The faults of the Newport-Inglewood uplift in some cases exert considerable barrier influence upon the movement of subsurface water (Department of Water Resources, 1961). Offsetting of sediments along these faults usually is greater in deeper, older formations. Displacement is less in younger formations. The Alquist-Priolo Special Studies Zone Act has designated this fault zone as a special studies zone. This designation has since been legislated along this "sufficiently active" fault after extensive geologic and seismic studies. This designation of a special studies zone hopes to mitigate the hazards of fault rupture by prohibiting building structures across the trace of the Newport-Inglewood fault. This fault presents a seismic hazards to Los Angeles (Toppozada et al., 1988, 1989), although no surface faulting has been associated with earthquakes along this structural zone. Since this fault is located within the Los Angeles Metropolitan area, a major earthquake along this fault would produce more destruction than a magnitude 8.0 on the San Andreas Fault. The largest instrumentally recorded event was the 1933 Long Beach earthquake, which occurred on the offshore portion of the Newport-Inglewood structural zone with a magnitude of 6.3. A maximum credible earthquake of magnitude 7.0 has been assigned to this fault zone (Scion and Yerkes, 1985).

The Palos Verdes Fault Zone

The Palos Verdes Fault is located about 11 miles southwest of the site. The fault extends for about 50 miles from the Redondo submarine canyon in Santa Monica Bay to south of Lausen Knoll and is responsible for the uplift of the Palos Verdes Peninsula. This fault is both a right-lateral strike-slip and reverse separation fault. The Gaffey anticline and syncline are reported to extend along the northwestern portion of the Palos Verdes hills. These folds plunge southeast and extend beneath recent alluvium east of the hills and into the San Pedro Harbor where they may affect ground water (Department of Water Resources, 1961). The probability of a moderate or major earthquake along the Palos Verdes fault is low compared to movements on either the Newport-Inglewood or San Andreas faults (Los Angeles Harbor Department, 1980). However, this fault is capable of producing strong to intense ground motion and ground surface rupture. The California State Mining and Geology Board has not placed this fault zone into an Alquist-Priolo special studies zone.

Whittier-Elsinore Fault Zone

The Whittier fault is a prominent structural feature in the Los Angeles Basin. It extends from Turnbull Canyon near Whittier, California southeast to the Santa Ana River where it merges with the Elsinore fault. Yerkes (1972) indicated that vertical separation on the fault in the upper Miocene strata increases from approximately 2,000 feet at the Santa Ana River northwestward to approximately 14,000 feet in the Brea-Olinda oil field. Farther to the northwest, the vertical separation decreases to approximately 3,000 feet in the Whittier Narrows of the San Gabriel River.

The fault also has a major right-lateral strike slip component. Yerkes (1972) indicates streams along the fault have been deflected in a right-lateral sense from 4,000 to 5,000 feet. The fault is capable of producing a maximum credible earthquake event of magnitude 7.0 every 500 to 700 years.

Sierra Madre Fault System

The Sierra Madre fault system extends for approximately 60 miles along the northern edge of the densely populated San Fernando and San Gabriel valleys (Dolan et al., 1995) and includes all faults that have participated in the Quaternary uplift of the San Gabriel Mountains. The fault system is complex and appears to be broken into five or six segments, each 10 to 15 miles in length (Ehlig, 1975). The fault system is divided into three major faults by Dolan et al. (1995) including the Sierra Madre, the Cucamonga and the Clamshell-Sawpit faults. The Sierra Madre fault is further divided into three minor fault segments the Azusa, the Altadena and the San Fernando fault segments. The Sierra Madre fault is capable of producing a 7.3 magnitude fault every 805 years (Dolan et al., 1995).

San Fernando Fault

The westernmost segment of the Sierra Madre fault system is the San Fernando segment. This segment extends for approximately 12 miles beginning at Big Tujunga Canyon on the east to the joint between the San Gabriel Mountains and the Santa Susana Mountains on the west (Ehlig, 1975). The 1971 Sylmar earthquake occurred along this segment of the Sierra Madre fault system resulting in a 6.4 magnitude fault. Dolan et al. (1995) indicates the San Fernando fault segment is capable of producing a 6.8 magnitude fault every 455 years.

The 1994 Northridge earthquake occurred on a fault parallel to the 1971 Sylmar earthquake. However, the dip direction of the two faults is opposite. The Northridge fault dips down to the south and the Sylmar fault dips down to the north.

Elysian Park Thrust System

The Elysian Park fault is a blind thrust fault system, i.e., not exposed at the surface, who's existence has been inferred from seismic and geological studies. The system as defined by Dolan et al. (1995) comprises two distinct thrust fault systems; 1) an east-west-trending thrust ramp located beneath the Santa Monica Mountains; and 2) a west-northwest-trending system that extends from Elysian Park Hills through downtown Los Angeles and southeastward beneath the Puente Hills. The Elysian Park thrust is capable of producing a magnitude 7.1 earthquake every 1,475 years.

Torrance-Wilmington Fault Zone

The Torrance-Wilmington fault has been reported to be a potentially destructive, deeply buried fault that underlies the Los Angeles Basin. Kerr (1988) has reported this fault as a low-angle reverse or thrust fault. This proposed fault could be interacting with the Palos Verdes hills at depth. Little is known about this fault and its exact location. The existence of the Torrance-

Wilmington fault is inferred from the study of deep earthquakes. Although information is still too preliminary to be able to quantify the specific characteristics of this fault system, this fault appears to be responsible for many of the small to moderate earthquakes within Santa Monica Bay and easterly into the Los Angeles area. This fault itself should not cause surface rupture, only ground shaking in the event of an earthquake. The Torrance-Wilmington fault is believed capable of generating earthquakes of magnitude 6.5 to 7.5.

3.4.1.3 Earthquake Probability

Based on the historical record, it is highly probable that the Southern California area will be affected by future earthquakes. Recent research shows that damaging earthquakes will be likely to occur on or near recognized faults showing evidence of geologically recent activity. Table 3.4-2 lists recent earthquakes in the general Southern California area.

3.4.1.4 Liquefaction

Soil liquefaction can accompany strong earth movement caused by earthquakes. Liquefaction would most likely occur in unconsolidated granular sediments that are water saturated less than 30 feet below ground surface (Tinsley et al., 1985). The pore water pressure can increase in certain soils during extended periods of ground shaking which can change the soil from a solid to liquid state. Structures that are built on soils subject to liquefaction can sink during an earthquake and be damaged since the soils cannot support their weight.

The California Division of Mines and Geology has prepared seismic hazard map zones for areas in California as required by the Seismic Hazards Mapping Act (Public Resources Code (PRC) Sections 2690-2699.6). The ISOCI facility is located in the Los Angeles Quadrangle and the area has been mapped for seismic hazards by the Division of Mines and Geology. The Hazard Map for the area indicates that the ISOCI facility is not located within an area where there has been a historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements in the event of an earthquake (California Division of Mines and Geology, Map of Seismic Hazard Zones, Los Angeles Quadrangle, March 25, 1999). Liquefaction is considered unlikely in relationship to the proposed project since the parameters required for liquefaction to occur are not evident at the sites, e.g., unconsolidated granular soils and a high water table. Ground water occurs greater than 200 feet below the surface grade and the soils below the facility are not conducive to liquefaction. Therefore, no significant impacts from liquefaction are expected.

TABLE 3.4-2

SIGNIFICANT HISTORICAL EARTHQUAKES IN SOUTHERN CALIFORNIA

DATE	LOCATION	MAGNITUDE
1915	Imperial Valley	6.3
1925	Santa Barbara	6.3
1920	Inglewood	4.9
1933	Long Beach	6.3
1940	El Centro	6.7
1940	Santa Monica	4.7
1941	Gardena	4.9
1941	Torrance	5.4
1947	Mojave Desert	6.2
1951	Imperial Valley	5.6
1968	Borrego Mountain	6.5
1971	San Fernando Valley	6.4
1975	Mojave Desert	5.2
1979	Imperial Valley	6.6
1987	Whittier	5.9
1992	Joshua Tree	6.3
1992	Landers	7.4
1992	Big Bear	6.5
1994	Northridge	6.7
1999	Hector Mine	7.1

Sources: Bolt (1988), Jennings (1985), Gere and Shah (1984), Source Fault Hazard Zones in California (1988), and Yanev (1974) and personal communication with the California Division of Mines and Geology.

3.4.1.5 Other Geological Issues

Other potential geologic hazards, including subsidence, flooding, seiches, tsunamis, and slope stability, are not expected to be significant potential hazards at the ISOCI facility. Subsidence has been a historical issue in areas where oil or ground water have been removed causing the surface to subside. No such activities are located near the vicinity of the ISOCI facility so subsidence is not expected to occur. As discussed in Section 3.6 – Hydrology and Water Quality, the ISOCI facility is not located within a flood hazard zone, so no significant adverse impacts associated with flooding are expected. The facility is not located near the ocean or other water body where tsunamis or seiching could occur, so no impacts associated with seiching or tsunamis are expected. Finally, the ISOCI facility is located on flat topography and no hills or slopes are located within or near the ISOCI facility, therefore, there is no potential for slope instability.

3.4.2 REGULATORY BACKGROUND

The Seismic Hazard Zone Mapping Act (Public Resources Code Sections 2690 – 2699.6) was passed by the California legislature in 1990 following the Loma Prieta earthquake in Northern California. The Act required that the California Division of Mines and Geology (DMG) develop maps that identify the areas of the State that require site specific investigation for earthquake-triggered landslides and/or potential liquefaction prior to permitting most urban developments. The act directs cities, counties and state agencies to use the maps in their land use planning and permitting processes.

The local governments are responsible for implementing the requirements of the Seismic Hazards Mapping Act. The maps and guidelines are tools for local governments to use in establishing their land use management policies and in developing ordinances and review procedures that will reduce losses from ground failure during future earthquakes. Where seismic hazard maps have been prepared by the DMG, cities and counties must:

- Determine the need for geotechnical reports prior to approving a development project (PRC Section 2697).
- Approve the site-investigation reports prior to issuing development permits (PRC Section 2697).
- Provide a copy of the site-specific report, including any mitigation measures imposed, to the State Geologist within 30 days of approval (PRC Section 2697).
- Provide a copy of any waiver request granted, along with report and commentary, to the State Geologist within 30 days.
- Collect building fees and remit to the Department of Conservation.
- Take the hazard map information into account when adopting or revising the safety elements of general plans and land use planning or permitting ordinances (PRC Section 2699).

3.4.3 THRESHOLDS OF SIGNIFICANCE

Project related impacts on the geological environment will be considered significant if they expose people or structures to potential substantial adverse effects, including the risk of loss injury or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
- Strong seismic ground shaking;
- Seismic-related ground failure, including liquefaction;

- Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

3.4.4 ENVIRONMENTAL IMPACTS

3.4.4.1 Rupture of a Known Earthquake Fault

No faults or fault-related features are known to exist on-site. The site is not located in any Alquist-Priolo Earthquake Fault Zone and is not expected to be subject to significant surface fault displacement. The site complies with the location standards of the California Code of Regulations (Section 66264.18) regarding the siting of hazardous waste facilities more than 200 feet from a fault with displacement during the Holocene time period. Therefore, no significant impacts to the ISOCI facility are expected from seismically-induced ground rupture.

3.4.4.2 Seismic Shaking

Based on the historical record, it is highly probable that the Los Angeles region will be affected by future earthquakes. Research shows that damaging earthquakes will be likely to occur on or near recognized faults showing evidence of recent geologic activity. The proximity of major faults to the ISOCI facility increases the probability that an earthquake may affect the ISOCI site and new project facilities. There is the potential for damage to the ISOCI facilities in the event of an earthquake. The Newport-Inglewood fault, about 7.5 miles south of ISOCI, poses a seismic hazard to Los Angeles (Toppozada et al., 1988, 1989), although no surface faulting has been associated with earthquakes along this structural zone. The impacts of an earthquake on the site are considered to be greater than the current conditions since additional structures will be constructed including new treatment and storage facilities. Impacts of an earthquake could include tank and other structural failure.

Additional structures at the site must be designed to comply with the Uniform Building Code Zone 4 requirements since the project is located in a seismically active area. The City of Los Angeles is responsible for assuring that the project complies with the Uniform Building Codes as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) Resist minor

earthquakes without damage; (2) resist moderate earthquakes without structural damage but with some non-structural damage; and (3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code bases seismic design on minimum lateral seismic forces ("groundshaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient which represents the foundation conditions at the site. The ISOCI site is located in a Zone 4 area and the Uniform Building Code provides appropriate site foundation requirements (Type S, C coefficient = 1.5) to protect foundations. The existing tanks and the proposed new tanks have/will be seismically reinforced by bolting the tanks to the concrete in accordance with the American Petroleum Institute 650 specifications.

Compliance with the Uniform Building Codes is expected to minimize the seismic impacts on the ISOCI facility, i.e., no structures are expected to collapse in the event of a major earthquake. In addition, the containment devices (storage tanks) have been certified as structurally sound and adequate for their intended use by an engineer registered in California (ISOCI Part B application, Appendix D). Therefore, the seismic impacts on the facility are expected to be less than significant. The City of Los Angeles is responsible for assuring compliance with the Uniform Building Codes through the building permit process.

The potential hazard impacts at the ISOCI facility associated with an earthquake (or other event) are evaluated in Section 3.5 – Hazards and Hazardous Materials.

3.4.4.3 Seismic-Related Ground Failure, Including Liquefaction

Liquefaction is considered unlikely at the ISOCI site since the parameters required for liquefaction to occur are not present at the site, e.g., unconsolidated granular soils and a high water table (less than 30 feet below ground surface). Ground water occurs at over 200 feet below the ground surface in the vicinity of ISOCI which is not conducive to liquefaction. Compliance with the Uniform Building Code requirements would minimize the impacts from liquefaction. Therefore, no significant impacts from liquefaction are expected.

3.4.4.4 Landslides, Soils Erosion, and Unstable Geological Units

Construction of new facilities is not expected to result in topographical changes at the ISOCI facility. The ISOCI facility is located in a flat area and little grading is expected to be required for new equipment installation. The placement of structures, storage facilities and new treatment units will be placed within the existing paved surfaces. Minimal grading could be required to locate the new facilities at the site since the site is already flat.

The proposed project would require minor earthwork associated with the construction of the new containment area, new processing units, new storage tanks, and some ancillary equipment. New storage and treatment facilities will be placed within existing paved areas so that soil will not be

disturbed. Since construction of new facilities and buildings will not increase the exposure of soil to wind or water, the proposed project would result in a less than significant impact on erosion.

The topography of the site will not be altered nor are any other significant adverse topographical feature impacts expected. The site is flat and no hills are located near the facility so that there is no potential for landslides to impact the facility. Therefore, the project impacts on landslides and soil erosion are expected to be less than significant.

3.4.4.5 Expansive Soils

The ISOCI site has been graded for construction of the existing facilities and has been operating since 1974. Industry has been located in this portion of the City of Los Angeles since the early 1950s (City of Los Angeles, 1991). The proposed project structures will be placed on existing paved surfaces or previously graded areas. There are no known expansive soils (as defined by Table 18-1-B of the Uniform Building Code) at the site. Therefore, the project impacts on expansive soils are considered to be less than significant.

3.4.4.6 Soils Capable of Supporting Septic or Alternative Wastewater Disposal Systems

The ISOCI facility currently has no wastewater discharge. ISOCI will be required to obtain an industrial waste discharge permit for its proposed wastewater treatment plant and to hook up to the sewer since the facility currently has no wastewater discharge. The facility is not proposing to install a septic system or other alternative wastewater disposal system; therefore, no significant geological impacts are expected.

3.4.5 MITIGATION MEASURES

No significant geologic and soil impacts associated with the proposed project were identified so that no mitigation measures are required.

3.4.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impacts associated with the continued operation of the ISOCI facility on geological resources, including topography, earthquakes, liquefaction, and other geological hazards are expected to be less than significant. Therefore, no significant unavoidable impacts are expected in the area of earth resources.

3.5 HAZARDS AND HAZARDOUS WASTE

3.5.1 Environmental Setting

The hazard section discusses the potential for accidental releases from the facility as well as the potential for accidental releases during transportation of materials to/from the site.

The ISOCI facility is located in a heavy industrial area within the City of Los Angeles. A number of manufacturing and heavy industrial facilities are located near the ISOCI site. These facilities include EKCO Metals and Ace Paper Company, as well as other manufacturing and commercial facilities.

3.5.1.1 Types of Hazards

There are many modes of failure that could lead to an upset at facilities in Los Angeles. The most probable natural event that would lead to an upset would be a major earthquake. Seismic hazards affecting the Los Angeles area and mitigation measures to minimize impacts (e.g., compliance with the Uniform Building Codes) are discussed in Section 3.4 – Geology and Soils herein. Other types of failure can include human error and mechanical or equipment failure. These failures and the potential impacts are evaluated in this section.

A detailed hazard analysis for the proposed project has been prepared and is discussed in Section 3.5.1.4 – Environmental Impacts. The current hazards at the ISOCI site as it currently exists are considered minor because the primary waste stream is used oil. There is little toxicity or fire hazard associated with this waste stream. Therefore, a detailed hazard analysis is not required for the environmental baseline (setting).

3.5.1.2 Site Contamination

Three soil investigations have been conducted at the ISOCI facility. The first investigation (conducted by Harding Lawson Associates in 1988) detected hydrocarbon bearing soil in an 80 square foot area that was reportedly the site of a waste oil spill in the western portion of the tank farm. The hydrocarbon bearing soil appeared to be surficial because the concentration at 10.5 feet depth was below the laboratory detection limit. The total recovered petroleum hydrocarbon concentrations at various depths and locations ranged from below the detection limit of one part per million, to 67 parts per million (ppm). Tetracholoroethane was detected at 0.20 to 0.25 parts per million in two soil samples taken at two feet deep. Hydrocarbon contaminated soils were believed to be limited in the vertical and lateral extent (ISOCI, 1997).

The second soil investigation (conducted by JRJ Associates in 1990) reported that during a site inspection discolored soils and evidence of industrial hazardous waste contamination were observed; deposits of hazardous oily liquid wastes on open soils were observed; and scattered petroleum based spills and fluids throughout the entire area were present. Soils sampling indicated that polychlorinated biphenyls (PCBs) were present in soils with a range in concentration of less than 0.1 to 0.2 parts per million, and some unidentified hydrocarbon compounds also were detected (ISOCI, 1997).

The third soil investigation also was conducted by JRJ Associates in 1994. Six soil samples were taken at the site and analyzed. Two of the samples were tested for volatile halocarbons, metals, diesel, gasoline and polychlorinated biphenyls. Results of the soil sampling indicated that volatile halocarbons were detected at concentrations of less than five parts per billion (ppb); traces of metals were detected which were below the level that would regulate the soil as hazardous, i.e., below the total threshold limit concentrations (TTLCs) identified in the California Code of Regulations (CCR), Title 22 Section 66261.24; diesel hydrocarbons were detected at concentrations of less than 1.0 part per million; gasoline hydrocarbons were detected in two samples, one sample at less than 1.0 part per million and in the second sample at less than 2.5 parts per million; and polychlorinated biphenyls were detected in two samples that ranged in concentration from 0.53 to 0.62 part per million. The remaining four samples were tested for gasoline, diesel, heavy metals, and volatile organic hydrocarbon contamination. In all four samples gasoline hydrocarbons were detected in concentrations of less than 1.0 part per million; diesel hydrocarbons were detected at concentrations that ranged from 130 to 340 parts per million; traces of heavy metals were below the total threshold limit concentrations; three of the four samples had volatile organic compound (VOC) concentrations that were below the detection level of the test; and the remaining soil sample contained toluene at a concentration of 5.5 parts per million and m,p-xylene at 5.9 parts per million (ISOCI, 1997).

Additional soil testing was completed at certain on-site solid waste management units. At Tanks 4, 6 and 17, soil sampling detected the presence of volatile organic compounds including: toluene (5.6 parts per million), tetrachloroethene (1.4 parts per million), m- & p-xylene (3.7 parts per million), and o-xylene (1.3 parts per million). Semi-volatile organic compounds were detected in the form of phenanthrene (2.5 parts per million). Polychlorinated biphenyls were detected at a concentration of 110 parts per million. Traces of heavy metal were below the total threshold limit concentration. Total petroleum hydrocarbons were detected at a concentration of 25,000 parts per million (ISOCI, 1997).

Soil sampling also was conducted in the area of the former chemical storage area (referred to as the bone yard). Results showed the presence of two volatile organic compounds: trichloroethane (13 parts per million) and tetrachloroethane (170 parts per million). Polychlorinated biphenyls also were detected at a concentration of 5.7 parts per million. Total petroleum hydrocarbons were detected at a concentration of 530 parts per million, and traces of heavy metals were detected below the total threshold limit concentrations (DTSC, 1994). This area has been cleaned up and turned over to ACTA for expansion of the railroad tracks immediately north of the area.

Since the completion of the soil sampling, ISOCI has upgraded its facility to include secondary containment around all existing storage tanks. Prior to construction of the secondary containment structures, all known contaminated soil was removed from the site. A report documenting the soil removal and sampling results was provided to the Department of Toxic Substances Control (JRJ Associates, 1997). The facility is required to conduct a RCRA Facility Investigation (RFI) to determine if any other contamination exists at the site. The RCRA Facility Investigation has not been completed for the site so that the details regarding any other sources of soil contamination and the need for remediation are unknown at this time.

3.5.1.3 Transportation Options, Routes, and Accident Risk

Local road, major highways, and freeways are shown in Figure 2.1-2. The facility is located on Soto Street, between Washington and Olympic Boulevards. Access for trucks and cars to the site is provided on Soto Street. The intersections of Soto Street at both Washington and Olympic Boulevards are signalized. Soto Street, Washington and Olympic Boulevards are major arterials through the Los Angeles/Vernon area. As discussed in Section 3.10 – Transportation and Traffic, several intersections in the vicinity of the ISOCI facility experience congestion during peak traffic hours, including Soto Street and Washington Boulevard. Local freeways in the area are usually congested during morning and afternoon peak traffic hours. They can become congested at any time of the day or night as well. The potential for accidents increases where there is congestion or impediments to free traffic flow.

The factors that enter into accident statistics include distance traveled and type of vehicle or transportation system. Factors affecting automobiles and truck transportation accidents include the type of roadway, presence of road hazards, vehicle type, maintenance and physical condition, and driver training. A common reference frequently used in measuring risk of accident is accidents per million miles traveled. Complicating the assessment of risk is the fact that some accidents can cause significant damage without fatality.

Factors to be considered when determining a safe route include traffic volume, vehicle type, road capacity, pavement conditions, emergency response capabilities, spill records, adjacent land use, and population density. In managing the risk involved in the transportation of hazardous waste, all these factors must be considered.

Every time hazardous waste is moved from its site of generation, opportunities are provided for accidental (unintentional) release. A study conducted by the U.S. Environmental Protection Agency indicates that the expected number of hazardous waste spills per mile shipped, ranges from one in 100 million to one in one-million, depending on the type of road and transport vehicle used. The U.S. Environmental Protection Agency analyzed accident and traffic volume data from New Jersey, California, and Texas, using the Resource Conservation and Recovery Act Risk/Cost Analysis Model and calculated the accident involvement rates presented in Table 3.5-1. The statewide accident rates for all vehicles including trucks and cars are shown in Table 3.5-2. In the study completed by the U.S. Environmental Protection Agency, cylinders, cans, glass, plastic, fiber boxes, tanks, metal drum/parts, and open metal containers were identified as usual container types. For each container type, the expected fractional release en route was calculated. The study concluded that the release rate for tank trucks is much lower than for any other container type (Los Angeles County, 1988).

TABLE 3.5-1

TRUCK ACCIDENT RATES FOR CARGO ON HIGHWAYS
(Accidents Resulting in Release of Cargo)

Highway Type	Accidents Per 1,000,000 miles
Interstate	0.13
U.S. and State Highways	0.45
Urban Roadways	0.73
Composite	0.28

Source: Los Angeles County, 1988

TABLE 3.5-2

STATEWIDE ACCIDENT RATES FOR ALL VEHICLE TYPES
(Accidents Resulting in Release of Cargo)

Highway Type	Accidents Per 1,000,000 miles
Interstate & Freeways	0.8
2-Lane Expressway	0.9
Divided Expressway	1.2
2-Lane Conventional Road	2.1
Multi-Lane Conventional	3.4

Source: Los Angeles County, 1988

The County of Los Angeles has developed criteria to determine the safest transportation routes. Some of the factors which need to be considered when determining the safest direct routes include the following (Los Angeles County, 1988):

1. Road conditions, such as capacity, grade, average daily traffic flow, and rush hour restrictions;
2. Land use considerations; and
3. Emergency response capability and coordination.

3.5.1.4 Transportation Accident Calculations

The accident rates developed based on transportation in California (see Table 3.5-2) were used to predict the accident rate associated with trucks transporting materials to/from the ISOCI facility (Los Angeles County, 1988). Table 3.5-3 estimates the accident and spill rates for truck traffic. Data in the Table 3.5-3 assume that 45 trucks per day transport wastes to the ISOCI facility throughout the year. The trucks are assumed to travel an average of 22 miles on freeways and three miles on city streets.

TABLE 3.5-3

EXISTING TRUCK ACCIDENT RATE ESTIMATES FOR ISOCI

Type of Road	Accident Rate per million miles	Miles Traveled per year	Accident Rate Per Year
Freeways	0.8	361,350	0.3
City streets	2.1	49,275	0.1

Based on Table 3.5-3, the accident rates are expected to be less than one per year. An estimated 20 percent of accidents involving hazardous materials result in spills (U.S. Federal Emergency Management Agency, et al., 1993). Therefore, the accident rate that involves a spill is estimated to be about 0.08 per year (0.4 x 0.20) or less than one accident in 12.5 years.

3.5.2 REGULATORY BACKGROUND

Federal

The Hazardous Materials Transportation Act is the federal legislation regulating the trucks that transport hazardous wastes. The primary regulatory authority is the U.S. Department of Transportation, the Federal Highway Administration, and the Federal Railroad Administration. The Act requires that carriers report accidental releases of hazardous materials to the Department of Transportation at the earliest practicable moment (Title 49 of the Code of Federal Regulations, Subchapter C). Incidents which must be reported include deaths, injuries requiring hospitalization, and property damage exceeding $50,000.

State

The California Environmental Protection Agency, Department of Toxic Substances Control is responsible for the permitting of transfer, disposal, and storage facilities. The Department of Toxic Substances Control conducts annual inspections of hazardous waste facilities. Other inspections can occur on an as-needed basis.

The California Department of Transportation (Caltrans) sets standards for trucks in California. The regulations are enforced by the California Highway Patrol. Trucks transporting hazardous waste are required to maintain a hazardous waste manifest. The manifest is required to describe the contents of the material within the truck so that wastes can readily be identified in the event of a spill.

State regulations require the use of certified hazardous waste haulers for the transport of hazardous waste in California. Certified waste haulers are required to adhere to certain inspection and maintenance schedules and maintain sufficient insurance coverage. These regulations apply to trucks that transport hazardous wastes to the ISOCI facility.

California Assembly Bill 2185 requires local agencies to regulate the storage and handling of hazardous materials and requires development of a plan to mitigate the release of hazardous materials. Businesses that handle any of the specified hazardous materials must submit to government agencies (i.e., fire departments), an inventory of the hazardous materials, an emergency response plan, and an employee training program.

CEQA statute (California Public Resources Code, Division 13 Environmental Protection) §21092.6 Location of Projects on Hazardous Waste Sites List directs the lead agency to consult the lists compiled pursuant to §65962.5 of the Government Code to determine whether the project and any alternatives are located on a site which is included on any list.

Local

Local authorities are involved in the implementation of federal and state regulations. The principal document for on-site contingency response is the hazardous materials business plan which is administered and enforced by the City of Los Angeles Fire Department. The business plans are required of all facilities that handle hazardous materials, including hazardous wastes. The business plans must provide a description of the types of hazardous materials/waste on-site and the location of these materials. The information in the business plan can then be used in the event of an emergency to determine the appropriate response action, the need for public notification, and the need for evacuation. ISOCI has prepared and submitted a hazardous materials business plan to the City of Los Angeles Fire Department.

3.5.3 THRESHOLDS OF SIGNIFICANCE

The criteria used to determine the significance of an impact are based on the model initial study checklist in Appendix G of the State CEQA Guidelines and the Los Angeles CEQA Thresholds Guide (City of Los Angeles, 1998). The proposed project may result in significant impact if it would:

- Create significant hazard to the public or environment through the routine transport, storage, use or disposal of hazardous materials;
- Create a significant hazard to the public through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school site;
- Be located on a site that is known to contain hazardous materials or is listed on a site compiled pursuant to Government Code §65962.5 and as a result could create a significant hazard to the public or the environment;
- Be located within an airport land use plan or within two miles of an airport;

- Impair implementation or physically interfere with an adopted emergency response plan or evacuation plan; or

- Expose people or structures to a significant risk of wildland fires.

3.5.4 ENVIRONMENTAL IMPACTS

The potential for environmental impacts associated with upset conditions and non-routine releases from operations at and related to the ISOCI site are evaluated in this section. Non-routine releases and upset conditions at the site could be caused by various incidents including natural disasters (e.g., earthquakes), human error, mechanical error, etc. A hazard assessment has been completed for the ISOCI facility to address the impacts associated with an emergency release from the site.

The methodology used to evaluate risk of upset impacts followed the Public Health Screening methodology presented in the Superfund Public Health Evaluation Manual (U.S. EPA, 1986a). Chemical emissions were estimated and environmental fate and transport were modeled to project exposure levels via air. Health effects data on chemicals of concern were analyzed to develop reference doses for public exposure. The estimated exposure concentrations of chemicals were compared to government or industry exposure standards for the chemicals. The details of the hazard analysis are provided in Appendix F.

3.5.4.1 Create a Significant Hazard to the Public or Environment Through the Routine Transport, Storage, Use or Disposal of Hazardous Materials or Through a Reasonable Foreseeable Upset and Accident

After a review of the facility operation, chemicals handled at the facility, process flow diagrams, and available piping and instrumentation diagrams, the accident scenarios identified in Table 3.5-4 were chosen.

TABLE 3.5-4

SPILL SCENARIOS

Accident Frequency	Probability (failures/year)	Description of Accident
Likely to occur within the life of the facility	5.0×10^{-2} (1 accident every 20 yrs.)	Ruptures of a 55 gallon drum
Unlikely, but possible	2.6×10^{-3} (1 accident every 387 yrs.)	Full gasket failure of a 4-inch pump discharge line. The pump is processing a mixed solvent stream.
Worst Cast	3.4×10^{-6} (1 accident every 294,118 yrs.)	Failure of a full storage tank containing mixed solvents.

The failure probabilities presented in Table 3.5-4 are based on a combination of observed failures (gaskets), estimated failures (tanks), and expected failures (drums). It is not unreasonable to expect that a 55-gallon drum will be punctured or spilled during a 20-year period. Gasket failure probabilities are reported as 2.6×10^{-2} per year (USNRC, 1975). This value includes both small and large leaks, as well as complete failures. Assuming that complete failures represent 10 percent of the total failures (likely a conservative assumption), the failure rate for a complete gasket failure would be about 2.6×10^{-3} per year. Failure rates for atmospheric pressure storage tanks are not readily available. The frequency of total failures of pressure vessels is about 2.7×10^{-8} failures per year (Sooby and Tolchard, 1993). Atmospheric pressure tanks are built to less stringent standards than pressure vessels and would be expected to have a higher rate of failure. There are approximately 29,700 atmospheric pressure storage tanks in refineries in the United States (Christensen and Eilbert, 1989). Assuming an average age of twenty years, 594,000 tanks years of use have occurred. During this time, two catastrophic failures have occurred. These data indicate that atmospheric tank failure occurs at a rate of about 3.4×10^{-6} failures per tank year.

Based on these scenarios, the total volume of liquid spilled for each of the accidents would be 55 gallons for the drum rupture, 780 gallons for the gasket failure, and 70,000 gallons for the tank failure.

For each of the assumed spills, vapor dispersion calculations were performed to determine the associated hazard zones. For the dispersion analysis, calculations were made to determine the distance downwind to the Emergency Response Planning Guideline (ERPG-2) thresholds. The Emergency Response Planning Guideline threshold is the maximum airborne concentration below which it is believed nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair their ability to take protective action. Emergency Response Planning Guideline values are considered to be the most appropriate thresholds for emergency planning for the protection of the public during relatively short-term events (U.S. FEMA, 1993). Unfortunately, Emergency Response Planning Guideline values are not available for a all chemicals of concern.

If ERPG-2 values were not available, the U.S. Department of Transportation's Temporary Emergency Exposure Limit or TEEL-2 values were used where available. The TEEL-2 values are equivalent to the ERPG-2 values. When neither ERPG-2 or TEEL-2 values were available, concentrations equivalent to one-tenth the Immediately Dangerous to Life and Health (IDLH) values were used. The IDLH thresholds have been developed for short-term work place exposure to a number of chemicals. Since IDLH values assume that healthy workers are exposed, the IDLH values have the potential to cause significant injury to young children, the elderly, or individuals with preexisting health problems (U.S. FEMA, 1993). Therefore, a safety factor of 10 is suggested when the IDLH is used for protection of the general public health (U.S. FEMA, 1993).

Fire radiation calculations were made to determine the distance to 1,600 and 500 Btu/hr-ft^2 radiant flux levels. The 1,600 Btu/hr-ft^2 fire radiation endpoint represents a flux level that would cause second-degree burns (blisters on unprotected skin) after about 30 seconds exposure. The 500 Btu/hr-ft^2 flux level is considered the level at which continuous exposure for eight hours

would be possible. For the 500 Btu/hr-ft^2 radiation level, some form of long-term burn protection, such as light-weight clothing, would be needed.

The first step in the analysis is to determine the size of the liquid pool formed by each release. Liquid spilled by any of the scenarios would flow to the nearest low point and begin to form a pool. In each bermed area, the ground is assumed to be graded at a one percent slope in the direction of the nearest sump. Using the grading information and the assumption that the pool would form as a semi-circular conical volume, spill surface areas were calculated and are identified in Table 3.5-5.

TABLE 3.5-5

LIQUID POOL SURFACE AREAS

SPILL SCENARIO	SURFACE AREA (ft^2)
55-Gallon Drum	400
Full Gasket Leak	3,000
Tank Failure	9,500

ISOCI handles and processes a number of chemicals that could pose toxicity hazards to persons located off-site. Chemicals were selected as posing the most significant risk to off-site persons. These chemicals were selected based on three criteria: (1) maximum concentration of the chemical found at the site; (2) Emergency Response Planning Guideline or IDLH/10 value; and (3) material vapor pressure at ambient temperatures. A hazard index analysis was conducted for the chemicals handled in the highest concentration. The chemicals with the highest hazard index have the potential for larger hazard zones (see Appendix F).

Vapor dispersion calculations were based on a spill of 55 gallons of a mixture (i.e., from a 55 gallon drum), with an assumed mole fraction of the chemical of concern of 0.3. Vapor clouds from chemicals with high hazard indicies could travel large distances before diluting below ERPG-2 values. Vapor dispersion calculations were made using a Gaussian dispersion model. The pool evaporation and vapor dispersion calculations were made based on Pasquill F stability weather conditions and a wind speed of 1.5 meter per second, which is considered severe ("worst-case") with respect to the dilution of the evaporating vapors.

Storing chemicals with the highest hazard indices at a mole fraction of 0.3 will likely be unacceptable due to the large area that could be subjected to chemical concentrations above the ERPG-2 level if a spill were to occur. The maximum concentration at which each chemical can be stored and still result in spills less than the ERPG-2 concentrations was determined. The distance to the closest receptors is about 200 meters. Using this distance, a maximum hazard index value of 200 was determined to be acceptable for a mole fraction of 0.3. To determine the actual mole fraction at which each chemical could be stored and maintain an EPRG-2 concentration within 200 meters of the facility, the following equation was used:

$x_i = 0.3(200)/H_i$

Where:

x_i = mole fraction required to keep chemical below significance level (ERPG-2 value or equivalent)
H_I = Hazard Index

The results of these calculations are presented in Table 3.5-6. Table 3.5-6 shows the maximum concentration at which a given chemical could be present within a 55 gallon drum such that, if the contents of the drum were released, the resulting vapor cloud would not exceed the ERPG-2 value (or equivalent value) at a distance of 200 meters from the spill. The only chemicals listed in Table 3.5-6 are those that have a Hazard Index greater than 200 when present at a concentration of 0.3 mole fraction. Chemicals with hazard indices of 200 or less are not included in Table 3.5-6 because the desire to limit the vapor cloud concentrations to no more than the ERPG-2 value does not limit the concentration at which most of the chemicals can be present within the 55-gallon drum. In other words, chemicals with hazard indices of 200 or less are not expected to result in off-site exposure in the event of a release. Table 3.5-6 summarizes the results of the evaporation calculations for these selected chemicals.

Fire and Explosion Impacts

A pool fire model was used to calculate the thermal radiation field downwind of three potential pool fires (see Table 3.5-5). The weather conditions assumed for these calculations were a wind speed of 10 miles per hour, an air temperature of 70°F, and a relative humidity of 50 percent. The results of the fire radiation calculations are summarized in Table 3.5-7.

The hazard zones for the 9,500 ft^2 pool fire are shorter than those associated with the 3,000 ft^2 pool fire because the bigger pool is an oil fire and oil fires are not efficient emitters of radiant energy (a result of soot/smoke produced by incomplete combustion).

Based on the analysis in section 3.5.1.4.1, the toxic hazard impacts associated with a release from the facility are potentially significant for certain chemicals (see Table 3.5-6) as their release could generate a vapor cloud with concentrations that exceed the ERPG-2 (or equivalent) significance threshold (see mitigation measure HZ-1 in section 3.5.1.5). The hazard impacts associated with fire radiation are expected to remain within the industrial area and would be considered less than significant (see Table 3.5.7).

TABLE 3.5-6

Maximum Waste Stream Concentrations

Chemical	Max. Mole Fraction(1)
Nickel Carbonyl	0.0016
Acetyl Chloride	0.0021
Phosgene(2)	0.0027
Phosphine	0.0068
Osmium Tetroxide (OsO_4, as Os)	0.0139
Methyl Isocyanate(2)	0.0148
Propenal, 2- (Acrolein)	0.0231
Acrolein (2- Propenal)	0.0237
Chlorine	0.0406
Methyl Chlorocarbonate	0.0467
Bromine	0.0598
Fluorine	0.0677
Hydrogen Cyanide(2)	0.0752
Cyanogen	0.1354
Formaldehyde	0.1354
Methyl Hydrazine	0.1426
Ethyleneimine	0.1463
Hydrocyanic Acid (Hydrogen Cyanide)	0.1633
Nitrogen Dioxide	0.2144
Hydrofluoric Acid	0.2708

(1) 1 mole = 6.02×10^{-23} Molecules. Mole Fraction is the ratio of moles of component A to total moles in a waste stream.

(2) Phosgene, methyl isocyanate, and hydrogen cyanide are no longer included in the Part B permit application and will not be handled by the ISOCI facility.

TABLE 3.5-7

Summary of Modeling Results For Fire Radiation

Area of Pool (ft2)	Downwind Distance (meters) to:	
	1,600 Btu/hr-ft^2	500 Btu/hr-ft^2
400	30	44
3,000	53	82
9,500	45	72

* Btu/hr-ft2 = British thermal units per hour per square feet

3.5.4.2 Off-site Operations

Impacts from Truck Transportation Accidents

Trucks could release hazardous wastes during an accident involving an inbound trip or release of processed hazardous substances/wastes during an outbound trip accident. An accident could occur on any of the freeways or roadways that would be used by independent waste haulers. The following information applies to truck transport:

Project trips would be distributed over several freeways in Los Angeles County and truck routes primarily within the City of Los Angeles.

No intersection within the vicinity of the ISOCI site will be severely impacted (see Section 3.10 – Transportation and Traffic).

Congestion on freeways in the Los Angeles area is common.

High volume freeways (interstates and U.S. Highways) have the lowest accident rates.

The actual occurrence of an accident and release of a hazardous material cannot be predicted. The location of an accident or whether sensitive receptors would be present in the immediate vicinity also cannot be identified. In general, the shortest and most direct route that takes the least time would have the least risk of an accident. Hazardous waste/material haulers do not routinely avoid populated areas along their routes, although they generally use approved truck routes which take population densities into account.

The accident rates developed based on transportation in California (see Table 3.5-2) were used to predict the accident rate associated with trucks transporting materials to/from ISOCI (Los Angeles County, 1988). Table 3.5-8 estimates the accident and spill rates for truck traffic. Data in Table 3.5-8 assume that 100 trucks per day transport wastes to ISOCI throughout the year. This is a worst-case estimate that would not be expected to occur daily at the site. The trucks are assumed to travel an average of 22 miles on freeways and three miles on city streets (see Appendix D).

TABLE 3.5-8

TRUCK ACCIDENT RATE ESTIMATES FOR ISOCI

Type of Road	Accident Rate per million miles	Miles Traveled per year	Accident Rate Per Year
Freeways	0.8	803,000	0.64
City streets	2.1	109,500	0.23

Based on Table 3.5-8, the accident rates are expected to be less than one per year. An estimated 20 percent of accidents involving hazardous materials results in spills (U.S. FEMA, et al., 1993).

The accident rate that involves a spill is estimated to be about 0.17 per year (0.87 x 0.20) or about one accident in 5.7 years. Therefore, the probability of an accident is expected to increase over the setting (estimated to be one accident in 12.5 years).

The probabilities associated with a spill of various sizes was estimated using the approach suggested by the U.S. FEMA (1993). The estimated spill size distribution is provided in Table 3.5-9.

TABLE 3.5-9

SPILL FREQUENCY ASSOCIATED WITH TRUCK ACCIDENTS

Spill by Size	Spill Size* Distribution	Spill Frequency (spills/year)
10% Loss (500 gals)	0.6	0.096
30% Loss (1,500 gals)	0.2	0.032
(100% Loss (5,000 gals)	0.2	0.032

* Source FEMA, et al., 1993.

Although few accidents would be predicted during the lifetime of the facility in populated areas along the truck routes, the possibility of an accident involving injury or death cannot be fully eliminated. This accident risk is inherent in the transportation system and is essentially the same as trucks transporting any other types of cargo. The U.S. EPA considered both hazardous waste and hazardous material accidents in developing the accident and release model because "the number of reported hazardous waste accidents was not large enough for statistical analysis. This approach was based on the postulation that the accident rate and fractional release models do not depend on the type of substance being shipped, but rather on the container used" (Los Angeles County, 1988).

Based on the above, a truck accident involving a spill is expected to be limited. Regulations have been developed by the U.S. Department of Transportation that govern the transport of hazardous materials. These regulations require labeling, the use of approved containers, inspection and maintenance schedules for trucks and a variety of other requirements that minimize the potential for, and impacts associated with, an accident.

Impact from Rail Transportation Accidents

The ISOCI facility can receive/transport hazardous waste via rail car. Statistical data on train accidents gave a rate of 12.4 accidents per million train miles traveled (Federal Railroad Administration, 1982). This rate is for the whole train and not for individual cars. Based on recent history, it is assumed that 1,820 rail cars per year would travel to/from the ISOCI site. Assuming that one rail car would travel a maximum of 160 miles per day, the estimated accident

rate is 0.006 accidents per year. It should be noted that train accidents do not necessarily involve all cars on any individual train. Using assumptions that only five cars in a typical 70 car train are involved in any one accident (e.g., 5/70 = 0.17) and that one percent of the cars on any single train carry hazardous waste (e.g., 1/70 = 0.14), the accident rate declines to 0.00015 per year involving the rail cars transporting hazardous waste or one accident every 6,667 years. The estimated spill size distribution is provided in Table 3.5-10.

TABLE 3.5-10

SPILL FREQUENCY ASSOCIATED WITH RAIL ACCIDENTS

Spill by Size	Spill Size Distribution*	Spill Frequency (Spills/Year)	Spill Frequency (No. of Years to Experience 1 Accident)
10% Loss (1,000 gals)	0.35	5.25×10^{-5}	19,048
30% Loss (3,000 gals)	0.35	5.25×10^{-5}	19,048
100% Loss (10,000 gals)	0.30	4.50×10^{-5}	22,222

* Source FEMA, et al., 1993.

The calculated rail car accident rate from off-site transportation events associated with the transport of hazardous waste is approximately one accident every 19,048 to 22,222 years which is small and results in no significant increase in risk to public safety.

3.5.4.3 Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School Site

ISOCI is located in an industrial area and is surrounded by industrial and commercial land uses. The closest school to the facility is north of Olympic on Grande Vista, which is over one-quarter mile from the facility. Therefore, no schools are located within one-quarter mile of the ISOCI facility. Further, as discussed in Section 3.5.1.4.1, no releases are expected to travel more than 51 meters (167 feet). The proposed project impacts on school sites are less than significant.

3.5.4.4 Located On A Site Compiled Pursuant to Government Code §65962.5

The ISOCI facility is not included on the recent list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the proposed project is not expected to have significant hazard impacts related to contaminated sites.

Prior to construction of the secondary containment structures, all known contaminated soil was removed from the site. The facility is required to conduct a RCRA Facility Investigation (RFI) to determine if any other contamination exists at the site. The RCRA Facility Investigation has not been completed for the site so that the details regarding any other sources of soil contamination

and the need for remediation are unknown at this time. The project would be required to comply with all applicable state and federal standards regarding hazardous waste/materials handling. The new and existing facility structures are required to be constructed with secondary containment in compliance with state and federal requirements. Secondary containment is expected to be effective to minimize the potential for soil contamination in the event of a spill or a leak.

Additional soil contamination that may be found during the RCRA Facility Investigation process may require remediation. The potential for future soil contamination is remote since secondary containment is required for new and existing structures. Secondary containment also has been provided in the loading/unloading areas. Therefore, the project impacts on soil contamination are expected to be less than significant.

3.5.4.5 Be Located Within Airport Land Use Plan or Within Two Miles of an Airport

The ISOCI site is not within an airport land use plan or within two miles of a public or private airport. Therefore, the proposed project will not result in any incremental safety hazards relating to airports in the region.

3.5.4.6 Impair Implementation or Interfere with An Adopted Emergency Response Plan

The ISOCI proposed project is not expected to interfere with an emergency response plan or emergency evacuation plan. The proposed project will result in modifications to the existing ISOCI facility. All construction activities will occur within the confines of the existing facility so that no emergency response plans should be impacted. ISOCI has implemented emergency response plans at its facility, but no modifications to the plans are expected as a result of the current proposed project. The proposed project is not expected to alter the route employees would take to evacuate the site, as the evacuation routes generally direct employees outside of the main operating portions of the facility. The facility currently stores, transports and utilizes hazardous materials and waste. The proposed project is not expected to adversely affect any emergency response plans or require modification to any existing plans.

3.5.4.7 Expose People or Structures to Significant Risk of Wildland Fires

The proposed ISOCI project will not increase the existing risk of fire hazards in areas with flammable brush, grass, or trees. The ISOCI facility will continue to use and produce flammable materials. No substantial or native vegetation exists within the operational portions of the ISOCI facility. Therefore, no significant increase in wildland fire hazards are expected at the ISOCI facility and no significant adverse impacts related to such fire hazards are expected. The overall risk from the ULSD project, including the SCR unit, will be less than significant.

3.5.4.8 Impacts on Water Quality

The impacts on water quality from routine operations are evaluated in Section 3.6 – Hydrology and Water Quality. An upset condition and spill also has the potential to affect ground water or water quality. A spill of hazardous waste could occur under upset conditions, e.g., earthquake, tank rupture, and tank overflow. Spills also could occur from corrosion of containers, piping and treatment equipment; leaks from seals or gaskets at pumps and flanges; and leaks from hose couplings used in the transfer of hazardous wastes.

A major earthquake would be a potential cause of a large spill. Other causes could include human or mechanical error. Construction of the tanks in accordance with the Uniform Building Code Zone 4 requirements helps structures to resist major earthquakes without collapse but with some structural and non-structural damage following a major earthquake. ISOCI maintains emergency equipment and would implement the spill control measures identified in the Contingency Plan in the event of an earthquake. The tanks and tank foundations at ISOCI have been designed and certified to be structurally sound and adequate for their intended use by a registered engineer (ISOCI Part B application).

All tanks at the ISOCI facility are constructed on impervious materials and under secondary containment. Therefore, the rupture of a tank would be collected within the containment system and pumped to an appropriate tank for treatment. A sump also is located at the truck loading/unloading area. The unloading area is visually inspected daily for evidence of cracks or leaks. The loading/unloading area for rail cars also has a containment area with a sump used to collect spilled or leaked materials. Spills within the wastewater treatment area would be contained by berms and/or sumps. Spilled material would be collected and pumped to an appropriate tank for treatment, or sent off-site if the materials cannot be treated at ISOCI. The details of the cleanup procedures are described in the ISOCI Contingency Plan and summarized in Chapter 2 herein. Because of the containment and treatment system, spills are not expected to migrate from the facility and impacts to water quality are considered to be less than significant.

3.5.5 MITIGATION MEASURES

Significant impacts were identified for the release of certain materials from a 55 gallon drum. Therefore, mitigation measures are required to minimize the potential for a significant impact due to exposure from these chemicals.

HZ-1 Waste streams handled at ISOCI must be limited to the maximum concentration of the chemicals identified in Table 3.5-6 (as calculated in Appendix F).

The above mitigation measures reduce the allowable concentrations of certain chemicals handled at the site. Calculations indicate that by reducing the concentrations, the distance that emissions of a chemical could travel in the event of a spill and exceed the Emergency Response Planning Guideline thresholds would be reduced and would be considered less than significant (see Appendix F).

There are a number of measures that are required for hazardous waste facilities under existing rules and regulations that minimize the impacts of emergency or upset events and are briefly summarized below. For more details, see Chapter 2 herein.

Inspections: ISOCI is required to inspect the tank storage areas, container (drum) storage area, loading/unloading areas, safety and emergency response equipment, security equipment, monitoring equipment, structural and operation equipment, and to perform general facilities inspections on a routine (generally daily) basis.

Contingency Plan and Emergency Procedures: ISOCI maintains a Contingency Plan as required by Title 22 of the California Code of Regulations, Sections 66264.51 through 66264.56 and trains personnel on emergency response procedures. In the event of an emergency, the emergency coordinator will direct a team to monitor the conditions near the spill to determine actual/potential dangers, provide for evacuation (if necessary), ensure cleanup, and notify appropriate response agencies.

Emergency Equipment: ISOCI maintains emergency response equipment including fire extinguishers, respiratory protective equipment, eyewash/showers, an internal alarm system, portable telephones, and fire hoses for connection to water lines.

Facility Design: The ISOCI facility has been designed in conformance with the Uniform Fire Code and other applicable portions of the City of Los Angeles Fire Code, smoking is prohibited wherever ignitable materials may occur, storage areas are equipped with secondary containment, incompatible wastes are segregated, the distance from the property line to containers of ignitable wastes is a minimum of 50 feet, storage tanks will be equipped with level control and automatic waste feed cutoff systems, and 24-hour security is provided at the site.

Personnel Training: ISOCI has a training program that includes introductory training and continuing education.

Transportation Requirements: Regulations have been developed by the U.S. Department of Transportation that govern the transport of hazardous materials. These regulations require labeling, the use of approved containers, inspection and maintenance schedules for trucks and a variety of other requirements that minimize the potential for, and impacts associated with, an accident. Trucks transporting hazardous waste are required to maintain a hazardous waste manifest. The manifest is required to describe the contents of the material within the truck so that wastes can readily be identified in the event of a spill. State regulations require the use of certified hazardous waste haulers for the transport of hazardous waste in California. Certified waste haulers are required to adhere to certain inspection and maintenance schedules and maintain sufficient insurance coverage.

3.5.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The hazard impacts are considered to be less than significant after mitigation.

3.6 HYDROLOGY AND WATER QUALITY

3.6.1 ENVIRONMENTAL SETTING

The ISOCI facility is located in the Coastal Plain of Los Angeles, which consists mainly of unconsolidated sediments or alluvium underlain by, and bounded on the north and east by essentially bedrock. The coastal plain has been divided into four ground water basins by geologic and surface features. The ISOCI facility is located within the Los Angeles Forebay area which is part of the Central Ground Water Basin. The Los Angeles Forebay area is located in the northern part of the Central Ground Water Basin immediately south of the two breaks in the line of low hills bordering the basin. The Los Angeles and the Rio Hondo river systems flow through these breaks from the north valleys into the Coastal Plain. The Forebay areas have been described as ground water recharge areas, or areas of free or unconfined ground water. However, the area around the ISOCI facility is reported to be underlain by the Bellflower aquiclude. Therefore, the aquifers in the area around the ISOCI facility are reported not to be in direct hydraulic continuity with the ground surface.

The area around the ISOCI facility is reportedly underlain by the Lakewood and the San Pedro formation. The Lakewood formation includes portions of the Bellflower aquiclude and the Exposition, Gardena, and Gage aquifers in order of increasing depth (see Figure 3.6-1) (California DWR, 1961).

The Exposition aquifer has been delineated in that portion of the Los Angeles Forebay area that is reported to be beyond the boundaries or limits of the Gaspur aquifer and reportedly consists of as many as three sand and gravel members separated in some areas by discontinuous clay and silt lenses. It attains a maximum thickness of 80 feet. The Gardena aquifer is below the Exposition aquifer and is present over much of the Los Angeles Forebay area. This aquifer consists mainly of sand and gravel with a little clay, and ranges from 0 feet to 60 feet thick. The Gage aquifer is also present in the Forebay area, but is mostly missing in large areas and is reportedly replaced by the Gardena aquifer. This aquifer consists of sand and sandy clay with some gravel, reportedly ranges from five to 100 feet in thickness, and reportedly rests unconformably on the underlying San Pedro formation (California DWR, 1961).

The San Pedro formation is reportedly the lowest, stratigraphically, of the formations that contain known aquifers and it includes the Hollydale, Jefferson, Silverado and the Sunnyside aquifers in order of increasing depth (California DWR, 1961).

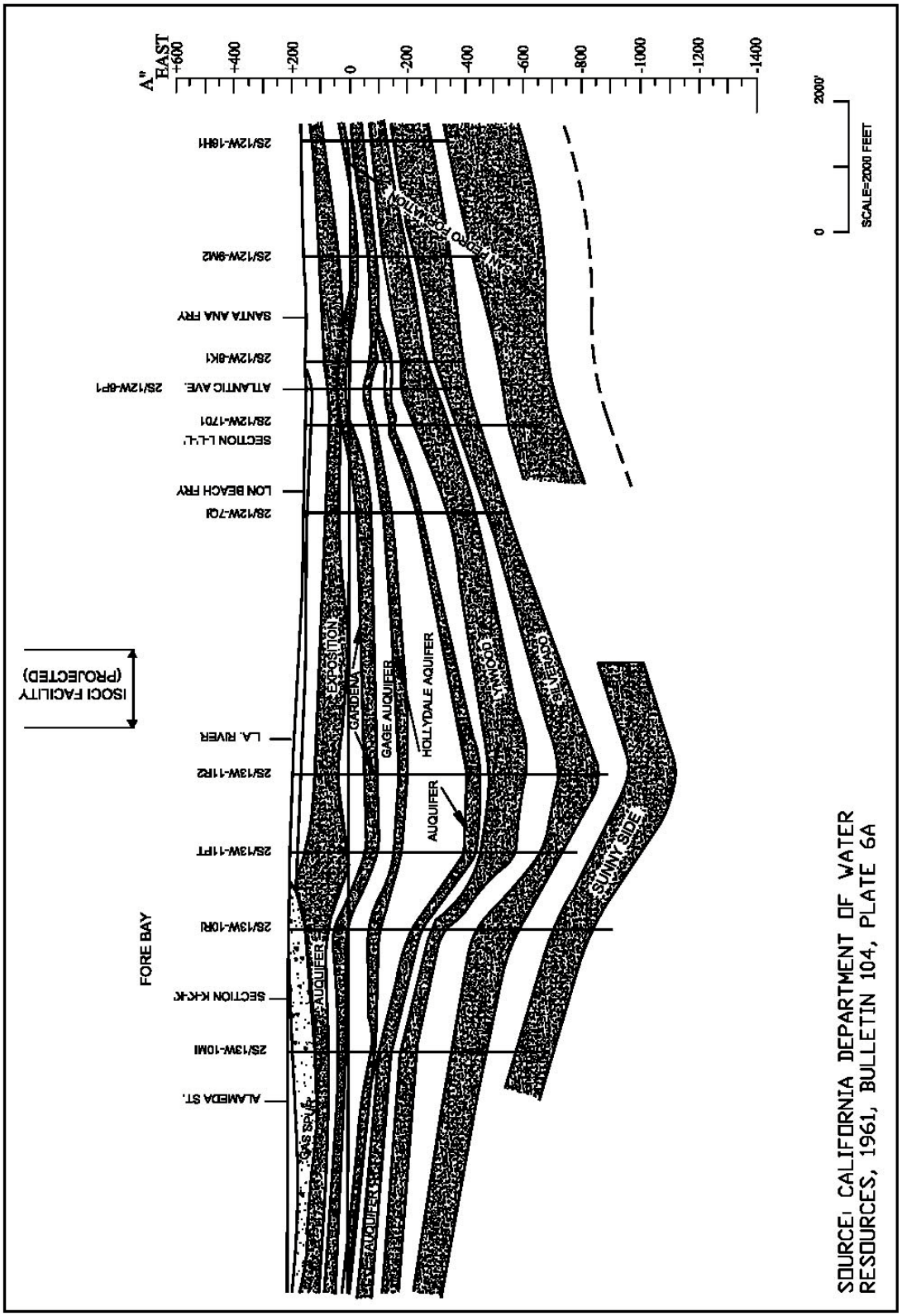
The Hollydale aquifer consists of sand and sandy clay with some gravel and ranges in thickness from 0 to 60 feet. The Jefferson aquifer consists of sand with some gravel and clay and ranges in depth from 0 to 70 feet in thickness. The Lynwood aquifer ranges from 20 to 130 feet in thickness, is present over all of the Los Angeles Forebay where the San Pedro formation occurs and consists mainly of sand and gravel with a little clay. The Silverado aquifer consists of gravelly sand with some interbedded clays and ranges from 50 to 430 feet in thickness. The Sunnyside aquifer is found over most of the Forebay area and consists mainly of sand with interbedded clays and it reportedly ranges from 50 to 430 feet in thickness. The San Pedro

formation is unconformably underlain by sediments of Pliocene age which reportedly contain fresh water in their upper portions (California DWR, 1961).

The Los Angeles County Hydrologic/Water Conservation Division, Hydrologic Records Unit indicated that the depth to ground water in the general ISOCI area is approximately 235 feet below the ground surface. Well Number 2778 was read on March 14, 2001 and the depth to ground water was listed as 235 feet below the ground surface. This well is located approximately 0.25 miles west of the ISOCI property. The existing ground surface in the general area is assumed to be flat and the depth of the local ground water table under the surface is expected to be similar.

3.6.1.1 Surface/Storm Water

Precipitation in the Los Angeles area occurs as rainfall, with most falling during the winter months. Precipitation generally flows into surface water channels or ground water basins. The Los Angeles River is the only water body located in the general area of the ISOCI facility and is located about one-quarter of a mile west of the ISOCI facility. The Los Angeles River drains a 832-square mile basin, and enters the Long Beach Harbor 17.5 miles south of ISOCI. The Los Angeles River watershed is controlled by a series of dams, and an improved river channel with a design flow capacity of 146,000 cubic feet per second.



GEOLOGIC CROSS SECTION
OF THE LOS ANGELES AREA

Figure 3.6-1

Figure 1631

I:\1631\rev.1\Geologic Cross Section

ISOCI has submitted a Notice of Intent to the Regional Water Quality Control Board for a general permit to discharge storm water associated with industrial activity. A Storm Water Pollution Prevention Plan (SWPPP) has been prepared in compliance with these permit requirements. The SWPPP requires the immediate clean up of spills and leaks. The SWPPP relies on the use of secondary containment structures to collect storm water which may be contaminated. The containment area has no sumps installed for removal of rain water and possible spills. No documented or reported spill or leaks of materials stored or handled at the site have been reported (ISOCI, 1997).

3.6.1.2 Flood Hazards

The ISOCI facility is located outside of the 100 year floodplain. The Los Angeles River is expected to contain all run-off in this area, therefore no flooding is expected. All zones are rated C - no risk of flooding from a 100 year storm event (U.S. FEMA, 1986).

3.6.1.3 Water Use and Wastewater Discharge

The ISOCI facility uses water principally for industrial purposes. The amount of water used at the ISOCI facility varies from about 7,500 to about 13,500 gallons per month. ISOCI purchases an average of about 10,500 gallons per month from the Los Angeles Department of Water and Power. ISOCI currently does not discharge any wastewater to the City sewer system because the facility is not hooked up to the sewer system.

3.6.2 REGULATORY BACKGROUND

The Federal Clean Water Act of 1972 primarily establishes regulations for pollutant discharges into surface waters. However, these regulations are not applicable to the ISOCI facility since it does not discharge to a surface water body. This Act requires industries to discharge wastewater to municipal sewer systems, commonly called Publicly Owned Treatment Works (POTWs), to meet pretreatment standards. Pretreatment standards require the removal of certain substances to levels that would be achieved if the best available control technology were utilized. The regulations authorizes the U.S. Environmental Protection Agency to set the pretreatment standards. However, the regulations also allow the local treatment plants to set more stringent wastewater discharge requirements, if necessary, to meet local conditions (DTSC, 1995a).

The 1987 amendments to the Clean Water Act enabled the U.S. Environmental Protection Agency to regulate, under the National Pollutant Discharge Elimination System (NPDES) program, storm water discharges from industries and large municipal sewer systems. The U.S. Environmental Protection Agency set initial permit application requirements in 1990. The State of California, through the State Water Resources Control Board, has authority to issue general industrial storm water permits, which meet U.S. Environmental Protection Agency requirements, to specified industries. Hazardous waste treatment, storage, and disposal facilities are eligible for a state-wide general permit (State of California, 1992). ISOCI has filed under these requirements for the general storm water permit.

The Porter-Cologne Water Quality Act is the State of California's primary water quality control law. It implements the State's responsibilities under the Federal Clean Water Act but also sets State wastewater discharge requirements. The Regional Water Quality Control Board (RWQCB) administers the State requirements as specified under this Act, which includes storm water discharge permits. The State does not control discharges to municipal wastewater treatment plants; rather these discharges are subject to the Federal pretreatment requirements and to the local sanitation or publicly owned treatment works agency requirements. It is expected that ISOCI will be issued limitations as part of an industrial wastewater discharge permit to discharge to the sewer system.

In response to the Federal Act, the State Water Resources Control Board prepared two state-wide plans in 1991 and 1995 that address storm water runoff: the California Inland Surface Waters Plan and the California Enclosed Bays and Estuaries Plan. These Plans contain similar provisions and complement each other. Both establish numerous water quality objectives for water bodies. The California Enclosed Bays and Estuaries Plan specifies the Los Angeles-Long Beach Harbor (to which surface water from the Los Angeles River eventually flows) as an enclosed bay.

The Los Angeles Regional Water Quality Control Board has prepared the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (LARWQCB, 1994). The Plan: designates beneficial uses for surface and ground water; (2) sets objectives to attain or maintain to protect designated beneficial uses; and describes implementation programs to protect all water within the region. The last triennial review of the Plan was in 2001 (LARWQCB, 2001).

The Resource Conservation and Recovery Act of 1976 and the Hazardous and Solid Waste Amendments of 1986 enable the U.S. Environmental Protection Agency to regulate hazardous wastes, including control of potential releases from hazardous waste facilities that may affect water resources. The U.S. Environmental Protection Agency has authorized the Department of Toxic Substances Control to administer its Hazardous Waste Control Law (California Health and Safety Code 25100-25250.25) program in lieu of the Resources Conservation and Recovery Act program, effective August 1, 1992. Included in Department of Toxic Substances Control's regulatory program (under the California Code of Regulations, Title 22) are provisions for protection against contaminant release and potential pollution of water resources, including:

1. Management of containers to prevent leaks and accidents that can result in leaks.

2. Design and performance standards for tanks to prevent leaks and failures.

3. Design and performance standards for treatment vessels and equipment.

4. Secondary containment and leak and spill detection.

5. Contingency plans and emergency procedures.

6. Regular inspection of hazardous waste facilities by DTSC and penalties for non-compliance.

ISOCI currently is operating under interim status and has applied to the Department of Toxic Substances Control to receive a permanent (Part B) hazardous waste facilities permit.

3.6.3 THRESHOLDS OF SIGNIFICANCE

Impacts on water resources will be considered significant if any of the following conditions are met:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete ground water supplies or interfere substantially with ground water recharge;
- Substantially alter existing drainage patterns resulting in substantial erosion and or flooding on or off-site;
- Create runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff; and
- Substantially degrade overall water quality.

3.6.4 Environmental Impacts

3.6.4.1 Violate Water Quality or Waste Discharge Standards and Degrade Overall Water Quality

Currently, there are no non-storm water discharges from the ISOCI facility. As part of the proposed project, ISOCI is applying for permits to connect the facility to the City of Los Angeles sewer system. The City of Los Angeles, Bureau of Engineering staff have indicated that as long as sewer discharge is within permitted limits, the discharge will not cause an adverse impact to the sewer system (Steve Chen, Personal Communication, City of Los Angeles Bureau of Engineering, Public Works Department). Any discharge of industrial wastes would have to be permitted separately by the City of Los Angeles Bureau of Sanitation, Industrial Waste Management Division.

Wastewater will be generated from several of the new process units at the facility including the following:

1. The separation of oil and water associated with used oil, waste oil, and oil-water mixtures.
2. Wastewater produced from the centrifuge separating oily sludges and water.
3. Wastewater generated from fractionation used in the product enhancement treatment.

4. Wastewater generated from the separation of ignitable liquids and water.

5. Wastewater generated from glycol distillation.

Wastewater generated from the above treatment units will be treated in the proposed wastewater treatment unit. The wastewater treatment system consists of several above ground enclosed tanks that will be used for: equalization (EQ), oil/water separation (OWS), coagulation/flocculation (CFT), dissolved air flotation (DAF), advanced oxidation processing (AOP), solids management (SM), and storage.

Raw wastewater is first accumulated in storage tanks, where it will be held until it is ready to be processed through the OWS, the CFT, and/or the DAF. Variable drive feed pumps will equalize the flow to prevent the overfilling of tanks. Levels in the storage tanks and the feed pumps will be monitored to prevent overflow.

After equalization, wastewater will be pumped to the OWS, which will separate free and demulsified oil. Recovered oil will be collected in a 55-gallon collection drum. Sludge bottoms will be discharged by gravity into a sludge collection tank.

From the OWS, wastewater will flow onto the three-chamber CFT. Treatment chemicals will be added to control pH and enhance coagulation/flocculation, and sensors will monitor pH and liquid levels. Bottom sediments from the CFT will be collected in the effluent holding tank.

Wastewater from the CFT will gravity feed to the DAF. The DAF will separate floating material and sediment that will be gravity fed to a sludge collection tank and will further treat the residue in the sludge conditioning tank and filter press. Wastewater from the DAF is then gravity fed to an effluent holding tank. The effluent holding tank will serve as the distribution point for wastewater to flow either to the AOP tanks, or the vacuum compression feed tank. The effluent holding tank will receive filtrate from solids dewatering and water draining from the DAF. The DAF will include three level switches to control effluent pumps when operated in the automatic mode. Each effluent pump will be equipped with variable frequency drives for controlling the flow rate to the AOP and vacuum compression feed. When a high-high condition is reached in the effluent holding tank, the DAF feed pumps will be shut off automatically.

The AOP will operate in batch mode, while the contents of the oxidation contact tanks are recirculated through the “Clorin” and e-OX systems. Oxidizing gases will be drawn into the recirulating water stream through a series of jet mixers in the recycle contact tank pumps. Each pump, when operating in automatic mode, will be controlled by level switches in the oxidation contact tanks. These pumps will recirculate water from the oxidation contact tanks through the “Clorin” and e-OX generators, thereby providing transferring oxidizing gases into the liquid stream through jet mixers. The “Clorin” generators, which are served by a common brine tank, will be controlled by an in-line residual chlorine monitor, which will stop “Clorin” generation at an established chlorine concentration. A level switch in the brine tank will actuate a solenoid valve for control of feed (city) water. Pressure sensors in the “Clorin” generator discharge piping will automatically turn off each generator upon reaching a pressure set point. When the

pressure set point is reached, the AOP will stop and wastewater treated in the oxidation contact tanks will be tested before batch discharge in accordance with the City of Los Angeles wastewater discharge permit.

OWS bottom solids, DAF float, and DAF bottom solids will be collected in a 500-gallon sludge collection tank, which will be equipped with an inductive type level switch. At high level, sludge will be automatically transferred to a 2,000-gallon sludge conditioning tank that will be equipped with a mixer. A float switch will automatically turn off the solids transfer pump at high level. Sludge may be conditioned with diatomaceous earth or similar material prepared in the pre-coat preparation tank. Pre-coat slurry will be prepared and recirculated through the filter press to deposit a porous protective "pre-coat" layer on the filter cloth. Conditioned sludge will be pumped through the recessed chamber filter press for dewatering. Dewatered sludge cake will be discharged to a self-tipping dumpster cart for subsequent disposal. The WWTS will be equipped with a comprehensive safety shut down system. Shut down will occur in the event of low and high levels in the storage and treatment tanks, low flow in pumps, or high pressures in the "Clorin" generators.

Wastewater will be treated to meet sewer discharge standards before batch discharge into the sewer system. This system will process about 84,600 gallons/day and the associated tank storage capacity is 228,040 gallons.

ISOCI has no direct wastewater discharges. ISOCI will be required to obtain an industrial waste discharge permit for its proposed wastewater treatment plant and to hook up to the sewer since the facility currently has no wastewater discharge. A permit application is required to be submitted to the City of Los Angeles Bureau of Sanitation, Industrial Waste Management Division and ultimately reviewed by the Los Angeles County Sanitation District. The Los Angeles County Sanitation District will be required to issue an industrial wastewater discharge permit to ISOCI. The facility will be required to comply with the industrial waste discharge permit. The permits are designed with permit conditions that place limitations on the wastewater that can be discharged from a facility. Typical permit conditions generally include volume limitations, pH requirements, oil and grease limitations, total toxic organic limitations, and so forth. These limitations are designed to assure that the wastewater treatment plants can meet their NPDES discharge requirements. Approval of and compliance with an industrial wastewater discharge permit is expected to provide adequate treatment so that impacts on the water quality would be less than significant.

3.6.4.2 Deplete Ground Water Resources or Interfere with Ground Water Recharge

The proposed project is not expected to add contaminants to the soil, increase the concentrations of the existing contaminants, or accentuates migration of these contaminants that could lead to ground water degradation. Secondary containment systems and paved surfaces associated with the ISOCI facility are expected to preclude soil contamination. All known contaminated soil has been removed from the site (JRJ Associates, 1997).

There is no evidence that ground water contamination has occurred at the site from historical site operations. The depth to ground water (over 200 feet) makes it highly unlikely that ground water

contamination could occur. No ground water recharge areas are located on or near the project site. The site is essentially paved to avoid contamination of soil and ground water.

The proposed project is not expected to require a substantial increase in water resources. The average water use at the facility may increase slightly to about 15,000 gallons per month (as compared to the current water use of about 10,500 gallons per month). The additional water will be purchased from Los Angeles Department of Water and Power (LADWP). In fiscal year 2004, LADWP supplied to its service area about 690,450 acre-feet of water (about 2.25 x 10^{11} gallons or about 225 billion gallons of water) and is expected to have adequate supplies in the future (LADWP, 2004). Industrial uses consumed about three percent of the total water consumption. LADWP has prepared a water supply assessment study, which indicates that sufficient water supplies are expected over the next 20 years for the LADWP service area. The LADWP assumed an increase in water use at industrial facilities of about 1.3 percent over the 20 year period. The increase in water demand associated with the ISOCI is much less than a one percent increase of the projected industrial demand. Water supply impacts and the potential for ground water depletion from the ISOCI project are not considered significant since sufficient water is available from the LADWP.

3.6.4.3 Substantially Alter Drainage Patterns Resulting in Erosion or Flooding, or Create Runoff Water that Would Exceed the Capacity of Drainage Systems or Provide Substantial Sources of Polluted Runoff

The issuance of the Part B is not expected to alter drainage patterns at the ISOCI facility. The facility is largely paved and the containment areas have already been developed. The Part B permit would primarily allow the construction of new tanks and equipment within the existing containment areas. No change in drainage patterns at the site is expected.

There are no storm water conveyance devices located on the ISOCI facility. The facility is inspected for leaks and spills daily and immediate clean up of any spills is required by Title 22 of the California Code of Regulations (CCR). Control of pollutant discharge into storm water at the ISOCI facility is limited to spill control, inspection and maintenance.

There are two container storage areas (see Figure 2-4). One container storage area occupies a portion of the hazardous waste tank storage area. The reinforced concrete base for the storage area is designed as a tank foundation with a 12 inch thick foundation. The concrete has been determined to be free of cracks and gaps. The concrete has been coated with two part epoxy primer and paint to render the concrete impervious and chemically resistant to spills and leaks. The concrete surfaces slope to drain into sumps which are provided with a suction pipe so that the contents of the sumps can be pumped into a tank for removal and treatment.

ISOCI provides secondary containment at the site sufficiently large to retain the volume of the largest container or 10 percent of the volume of all containers, plus rain from a 24-hour, 25 year storm (see ISOCI Part B Permit application, Appendix E). The containment walls are over 40 inches high which is a sufficient elevation to prevent water run-on at the facility.

Secondary containment for loading and unloading has been provided for rail cars under the rail spurs. Drains in the railroad spill containment structure run to a pump capable of removing liquid at a rate of about 90 gallons per minute. The railroad spill containment structure is manufactured of 1/4 inch steel plate. This structure is not designed to contain the entire contents of a railroad tank car but is equipped with a pump to remove accumulated liquids.

All new storage tanks will require an inspection and certification by a professional engineer registered in California. The certifications require that each tank be tested or otherwise inspected to ensure that it will not crack, rupture or fail during storage or treatment of hazardous waste.

There are four secondary containment areas provided for truck loading and unloading from the tank storage area. This area is designed to contain minor spills which occur during supervised loading and unloading operations.

Containers will be offloaded from trucks directly into the secondary containment areas or onto other trucks or rail cars. No secondary containment is provided for trucks off-loading containers.

Facility operations are not expected to result in direct discharges to any surface water body. Surface water runoff within the containment area, which contains the hazardous waste management units, would be controlled and collected. The Storm Water Pollution Prevention Plan outlines the storm water control measures at the facility to prevent contaminated storm water runoff from leaving the site. As part of the Storm Water Pollution Prevention Plan, ISOCI has developed storm water management practices designed to minimize pollutants in storm water. Storm water generated in the process area (that may come into contact with hazardous materials) would be sampled, pumped to the wastewater treatment unit, or directly discharged, depending on the results of the sampling. Storm water that does not meet established criteria will be treated in the wastewater treatment system prior to discharged from the facility, or pumped and taken to an appropriate treatment facility. The facility is required to take samples of storm water in compliance with the Storm Water Pollution Prevention Plan. The Storm Water Pollution Prevention Plan must be reviewed following any modifications or additions to the facility and updated, as necessary. As a result of the existing storm water management procedures, the potential for a significant impact on the Los Angeles River, or ultimately the Los Angeles Harbor, from facility runoff is less than significant.

The ISOCI facility is located outside of the 100-year floodplain (Federal Emergency Management Agency map number Community - 060137, Panel number 0082C). The Los Angeles River is expected to contain all run-off in this area. Therefore, no significant flood hazards are associated with the site.

3.6.5 MITIGATION MEASURES

No significant hydrology and water quality impacts associated with the project were identified so that no mitigation measures are required.

3.6.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The project impacts on water demand, wastewater treatment, surface water impacts, and ground water impacts are considered to be less than significant and no significant unavoidable impacts are expected to remain.

3.7 LAND USE AND PLANNING

3.7.1 ENVIRONMENTAL SETTING

3.7.1.1 Land Use and Zoning

The 2.2 acre ISOCI facility is located in the south central portion of Los Angeles County in the City of Los Angeles (see Figures 2-1 and 2-2). The ISOCI facility, and adjacent areas, are located in the City of Los Angeles' M3-1 (heavy industrial) zone (see Figure 3.7-1). Facility land uses are compatible within this zoning designation. The ISOCI facility currently has no land use permit from the City of Los Angeles. The City of Los Angeles enacted Ordinance Number 163,620 on May 11, 1988, which granted "deemed-to-be-approved" conditional use authority to existing hazardous waste facilities and required all new and modified hazardous waste facilities to obtain a conditional use permit. The City of Los Angeles has indicated that a conditional use permit will be required for the proposed project, i.e., the proposed facility modifications identified in Chapter 2 herein. The ISOCI facility is bounded to the south by businesses residing on E. Washington Blvd., to the north by railroad tracks utilized by Metrolink and Union Pacific (with various industrial and commercial buildings beyond that), to the east by vacant land, and railroad tracks leading into the Hobart rail yard, and to the west by Soto Street and industrial and commercial land uses.

The major industrial sites in the area include EKCO Metals, located west of the ISOCI site across Soto Street, and Ace Paper Company, located south of the ISOCI site on Washington Blvd., as well as other manufacturing and commercial facilities. Virtually all of the area immediately surrounding the ISOCI facility contains commercial or industrial land uses. The nearest residential area is located approximately one-quarter mile north of the facility and north of Olympic Boulevard. Residential areas are located south of ISOCI in the City of Huntington Park; southeast of the facility in the cities of Maywood and Bell; east of the facility in East Los Angeles; north of the facility in the Boyle Heights area of the City of Los Angeles; and west of the facility in the City of Los Angeles. The City of Vernon is located immediately south of the ISOCI facility. The entire City of Vernon is zoned for industrial and commercial land uses.

The ISOCI facility is located in the Boyle Heights portion of the City of Los Angeles' General Plan (City of Los Angeles, 1998). The Boyle Heights community is bounded by the Los Angeles River on the west, the City boundary at Indiana Street on the east, Marengo Street and Interstate 10 on the north, and the City boundary at about 25th Street on the south. Boyle Heights is adjacent to the downtown Los Angeles and central industrial areas. Boyle Heights was initially developed as one of Los Angeles' first residential suburbs. By the 1920's, the land had been

almost totally subdivided and some of Los Angeles' first public institutions and public buildings were built at this time, along with many private schools, sanitariums, religious facilities and other institutions. Consequently, much of the community's infrastructure and housing stock is very old. About 21 percent of the land in the Boyle Heights community is industrial (City of Los Angeles, 1998).

During this same period, the physical environment of Boyle Heights evolved as the industries located on the west side of the Los Angeles River expanded into the northern, western and southern edges of the Boyle Heights Community.

The Boyle Heights community became a prime part of the City's industrial development in about 1940. The industrial development is part of the older and larger industrial core lying east of the central area of Los Angeles and extending south into the City of Vernon and east into the City of Commerce. The dominant industrial employers are engaged in the manufacture of fabricated metal products, machinery, furniture and fixtures, as well as printing and publishing. The industrial sector is characterized by smaller parcels, piecemeal development and substandard streets, restricting the potential for site expansions to increase storage or production space, the rehabilitation and reuse of structures, and provision of off-street parking (City of Los Angeles, 1998).

Subsequently (and probably the most significant factor to alter the environment), the construction of four major freeways took place. Two freeways were built in the 1940's, and two more in the early 1960's. As a result, Boyle Heights was segmented into four smaller areas and one large area. In spite of this division, the industrial sector represents an important resource in terms of City tax revenues and employment for City residents (City of Los Angeles, 1998).

Although much of the residential housing stock is old, with some exceptions, it still provides viable housing opportunities for both renters and homeowners. There are some pockets in the community where the housing stock is marginal and in need of major rehabilitation. These areas may also provide opportunities for redevelopment in order to accommodate an increasing population (City of Los Angeles, 1998).

The commercial corridors are low-scale in nature characterized by one and two story buildings containing a mix of retail, auto related uses and mom-and-pop businesses. Most of the commercial activity is strip retail located along portions of Avenida Cesar Chavez and First Street (City of Los Angeles, 1998).

The Community Plan designates two areas for regional commercial development – one area is along Avenida Cesar Chavez/Soto Street and the other is at Olympic/Soto Street. The largest retail establishment in Boyle Heights has been the Sears Roebuck & Company retail store and warehouse. However, Sears has closed its catalog operation. Current re-use opportunities for the building are being examined. The site sits in a Community Redevelopment Agency zone, a California Enterprise Zone and a Federal Empowerment Zone, potentially qualifying it for grants and low-interest loans from all levels of government.

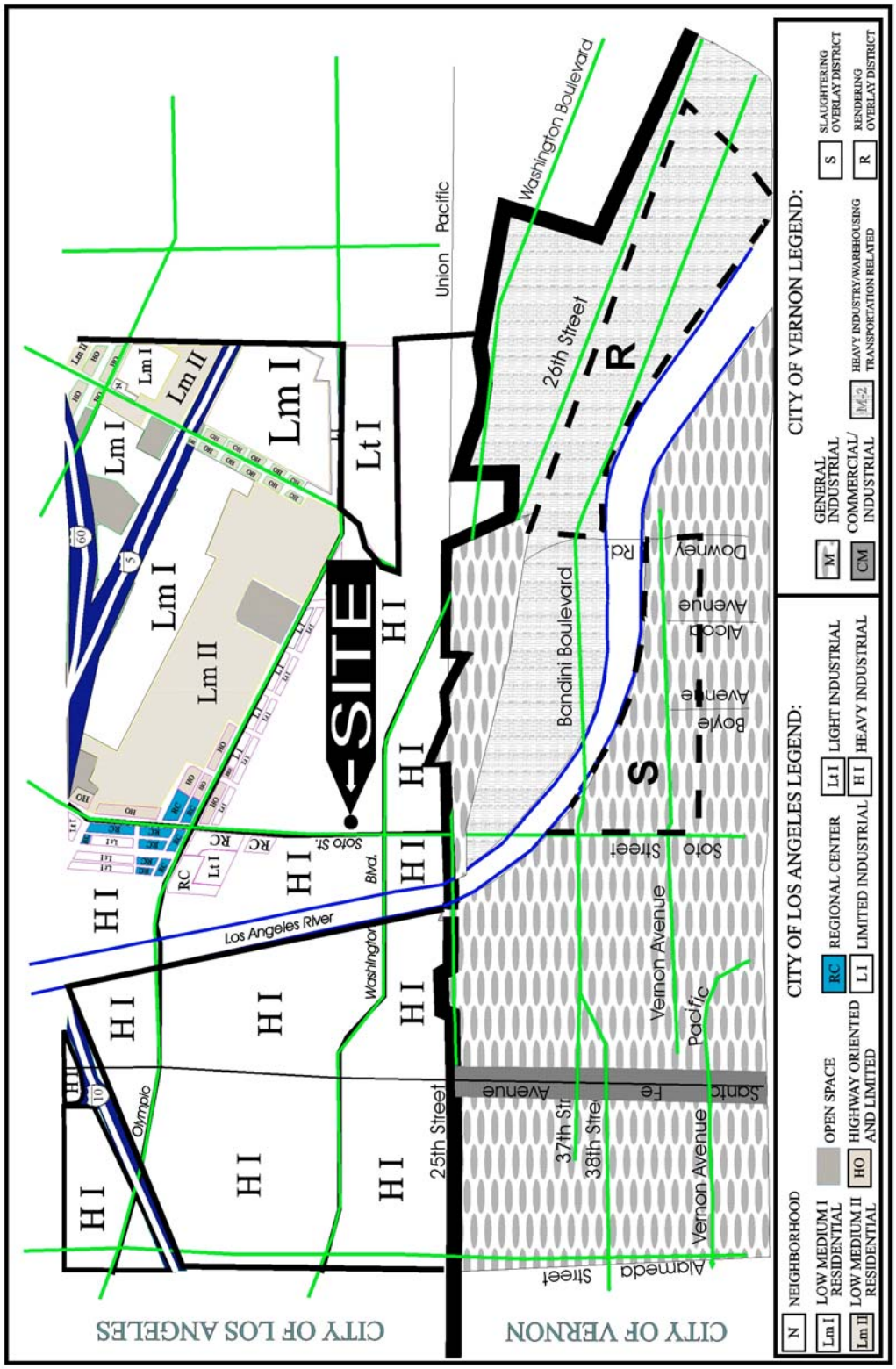

SITE
Lm I
Lm II
Lt I
H I
RC
Lt I
Los Angeles River
Olympic
Washington Blvd.
Soto St.
Union Pacific
Washington Boulevard
26th Street
Bandini Boulevard
Downey Rd
Alcoa Avenue
Boyle Avenue
Soto Street
Vernon Avenue
Pacific
Santa Fe Avenue
25th Street
37th Street
38th Street
Alameda Street
CITY OF LOS ANGELES
CITY OF VERNON
CITY OF LOS ANGELES LEGEND:
N NEIGHBORHOOD
Lm I LOW MEDIUM I RESIDENTIAL
Lm II LOW MEDIUM II RESIDENTIAL
OPEN SPACE
HO HIGHWAY ORIENTED AND LIMITED
RC REGIONAL CENTER
L I LIMITED INDUSTRIAL
Lt I LIGHT INDUSTRIAL
H I HEAVY INDUSTRIAL
CITY OF VERNON LEGEND:
M GENERAL INDUSTRIAL
CM COMMERCIAL/ INDUSTRIAL
M/2 HEAVY INDUSTRY/WAREHOUSING TRANSPORTATION RELATED
S SLAUGHTERING OVERLAY DISTRICT
R RENDERING OVERLAY DISTRICT
N
LAND USE MAP
ISOCI
1700 S. SOTO STREET
LOS ANGELES
ENVIRONMENTAL AUDIT, INC.
Project No. 1631
N:\1631\rev.1\Land Use Map ISOCI.cdr

Figure 3.7-1

MJW Investments, Inc. is finalizing plans for a mixed-use project on the 23.5-acre Sears site at Olympic Boulevard and Soto Street. Property adjacent to the Sears site is also included in the plan. Original plans include 440 townhomes and condominiums, 180 rental apartments, with 20 percent of the units reserved for low-income families. Additionally, 750,000 square feet of retail space, an office component, and parking for at least 3,000 cars are on the plans. Also included in the plans are cobble-stone streets winding through the project to connect homes with commercial structures, as well as the proposed community center and several acres of athletic fields and parks (Fixmer, 2004).

Boyle Heights is designated a High Density Unemployment Area (HDUA) by the State of California. The ISOCI facility also is located within the Eastside Enterprise Zone, a State sponsored economic development program, implemented by the City's Community Development Department. The Enterprise Zone Program provides a variety of tax credits to eligible businesses as well as financing programs and other incentives to preserve existing businesses and encourage business expansion within the zone. This program has been in effect since 1988 (City of Los Angeles, 1998).

3.7.1.2 Hazardous Waste Management Plan

California's Hazardous Waste Control Law (Chapter 6.5, Division 20 of the Health and Safety Code) which was enacted due to passage of Assembly Bill 2948 (Tanner), required each county in California to prepare a hazardous waste management plan to safely and responsibly manage hazardous wastes generated and disposed of within the county.

In response to this State law, the Los Angeles County Department of Public Works (LACDPW) prepared a Los Angeles County Hazardous Waste Management Plan (HWMP) in September 1988 (Los Angeles County, 1988). The Hazardous Waste Management Plan analyzes the projected needs, shortfalls and excesses for hazardous waste treatment facilities in Los Angeles County. Portions of this Plan were updated in September 1994 by the Southern California Hazardous Waste Management Authority (SCHWMA, 1994). The Southern California Hazardous Waste Management Authority was created by a consortium of representatives from eight Southern California counties (Los Angeles, Orange, Ventura, Riverside, San Bernardino, San Diego, Santa Barbara, and Imperial) to conduct a detailed study of hazardous waste generation and disposal practices in the region; to offer management guidelines for handling these wastes; and to establish criteria for the siting of hazardous waste management facilities.

DTSC maintains records on the volume of hazardous waste generated within California and within each county and city in California. About one-third of the wastes generated in Los Angeles County are waste oil, mixed oil, or unspecified oil containing wastes (see Table 3.7-1).

The Regional Hazardous Waste Management Plan promotes the concept that every city and county in the region will accept responsibility for the management of hazardous wastes in an amount proportional to the hazardous wastes generated within the city and county. However, there is a disparity in the region's waste treatment/disposal capacity among the various counties

in Southern California, e.g., Los Angeles County provides over 90 percent of the region's capacity for oil recovery (SCHWMA, 1994).

TABLE 3.7-1

HAZARDOUS WASTE GENERATED IN LOS ANGELES COUNTY

Calif. Waste Code	Type of Waste	Total Tons		
		2002	2003	2004
221	Waste oil and mixed oil	273,295	286,059	314,414
611	Contaminated soils from site clean-up	120,092	218,600	171,773
181	Other inorganic solid waste	123,904	125,345	138,222
151	Asbestos-containing waste	43,445	54,095	95,173
352	Other organic solids	51,684	55,237	77,081
214	Unspecified solvent mixture	31,203	29,754	30,514
134	Aqueous solution with organic residues	25,262	26,093	24,818
135	Unspecified aqueous solution	20,343	22,030	24,802
223	Unspecified oil-containing waste	34,233	20,888	18,642
261	Polychlorinated biphenyls	2,212	3,197	17,291
	Other Waste Streams	123,516	129,955	141,155
	Total Hazardous Waste Generated	**849,189**	**971,253**	**1,053,885**

Source: DTSC, 2005 Hazardous Waste Reports http://hwts.dtsc.ca.gov/report_list.cfm

The Los Angeles County Hazardous Waste Management Plan also defines in detail the criteria that must be met for siting a new hazardous waste management facility or for major modifications to an existing facility and to identify areas suitable for siting off-site hazardous waste management facilities. The portion of Los Angeles in which ISOCI is located is identified as generally suitable for off-site hazardous waste management facilities in the Plan. The Hazardous Waste Management Plan identifies suitable areas not only because they meet the siting criteria, but also because most hazardous waste generators are located in these areas and the generator operations are very similar environmentally to the hazardous waste management facilities. The areas considered to be "suitable" for hazardous waste management facilities are based on various criteria including: (1) distance from residences; (2) lack of flood hazards; (3) lack of geological hazards including subsidence, liquefaction, and active faults; (4) lack of aqueducts and reservoirs in the area; (5) lack of environmentally sensitive areas; (6) proximity to major transportation routes; and (7) industrial zoned property, among others (Los Angeles County, 1988).

3.7.1.3 Hazardous Waste Site Listings

The California Environmental Quality Act guidelines and statutes require that EIRs include a discussion on the facility with regard to inclusion on state and federal hazardous waste site lists. The following is provided in compliance with these requirements.

The U.S. EPA maintains the Resource Conservation and Recovery Information System (RCRIS) which include selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act. ISOCI is listed on the RCRIS list. There are 13 sites within one-half mile of ISOCI listed on the RCRIS list.

The California Office of Emergency Services maintains the California Hazardous Material Incident Report System (CHMIRS) which contains information on hazardous material incidents, i.e. releases or spills. ISOCI is not listed on the CHMIRS list. There are three other sites within one-half mile of ISOCI listed on the CHMIRS list.

The Office of Planning and Research maintains a Hazardous Waste and Substances Sites list known as the "CORTESE" list. The data for this list were received from the California Water Resources Control Board, California Waste Management Board, and the California Environmental Protection Agency. This database identifies public drinking water wells with detectable levels of contamination, sites selected for remediation, sites with underground storage tanks having reportable releases and all solid waste disposal facilities from which there is known migration. ISOCI is not listed on the CORTESE list. There are five other sites within one-half mile of ISOCI listed on the CORTESE list.

The EPA maintains the CORRACTS database of RCRA facilities which are undergoing "corrective action". A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA. ISOCI is listed on the CORRACTS list. There is one other site within one-half mile of ISOCI listed on the CORRACTS list.

The California Regional Water Quality Control Board maintains the CA SLIC list which lists spills, leaks, investigations and complaints. ISOCI is not listed on the CA SLIC list. There is one other site within one-half mile of ISOCI listed on the CA SLIC list.

The CalSites Program Information System list includes sites which have been identified by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) as potentially hazardous waste sites based on information gathered during the Abandoned Site Survey program and other similar programs. The DTSC reviewed various regulatory agency files, interviewed officials from these agencies, and reviewed historical land use data to compile the list of potential sites. Status determinations were not made on the basis of environmental sampling, but rather were made as a result of file surveys, interviews, and "windshield surveys", i.e., brief drive-by site inspections. ISOCI is not listed on the CalSites Program Information System inventory. There are ten other sites within one-half mile of ISOCI listed on the CalSites Program Information System Inventory.

The presence of a site on the CERCLIS or CalSites Program Information System lists does not necessarily mean that contamination is present at the site. The CERCLIS and CalSites Program Information System listing process is a screening tool used by the California Environmental

Protection Agency to assist in prioritizing potentially contaminated sites which may require further investigation. Sites determined through the CERCLIS or CalSites Program Information System listing process to pose potentially serious threats to human health and/or the environment are placed on the Federal National Priorities List or State Bond Expenditure Plan for remediation. Specific details regarding the nature and extent of contamination at the listed sites are not provided on the lists.

The California Regional Water Quality Control Board, Los Angeles Region Leaking Underground Storage Tank Information System (LUSTIS) lists contain information on sites with known or suspected soil and ground water contamination resulting from unauthorized releases of hazardous substances and/or wastes from underground storage tanks. ISOCI is not on the Leaking Underground Storage Tank Information System listing. There are six other sites within one-half mile of the site listed on the Leaking Underground Storage Tank Information System. Records associated with the listed sites were not reviewed as part of the EIR process.

The California Integrated Waste Management Board (CIWMB) maintains an inventory of open, closed, and inactive solid waste disposal facilities and transfer stations located throughout the State of California pursuant to the Solid Waste Management and Resource Recovery Act 1972. The information gathered by the California Integrated Waste Management Board is organized and maintained through the Solid Waste Information System (SWIS). ISOCI is not on the Solid Waste Information System list. There are two sites within one-half mile of the site on the Solid Waste Information System list.

As required under the Resource Conservation and Recovery Act, all applicants applying for a hazardous waste permit must under go a Resource Conservation and Recovery Act Facility Assessment. A Resource Conservation and Recovery Act Facility Assessment determines if future clean-up or corrective action is necessary. A partial Resource Conservation and Recovery Act Facility Assessment was completed in June 1994 for ISOCI. The Resource Conservation and Recovery Act Facility Assessment indicated that the facility had soil contamination in two locations (the tank farm area and at the east end of the facility). The areas of known soil contamination at the ISOCI site have been removed (JRJ Associates, 1997). Additional facility assessments will be required as part of the Part B permit requirements.

3.7.2 REGULATORY BACKGROUND

The General Plan is the basic planning document of a city or county and acts as a guide for development. Every city and county must adopt a general plan with seven mandatory elements including land use, circulation, housing, conservation, open space, noise, and safety (including seismic, fire, and flood management). Within the City of Los Angeles, the General Plan reflects policies for the provision of schools and parks in its Citywide General Plan framework and in Community Plans for the City's 35 geographical areas. Planning policies are implemented through various mechanisms including Specific Plans and related Zoning provisions. The proposed project is located within the boundaries of the Boyle Heights community plan.

3.7.3 THRESHOLDS OF SIGNIFICANCE

The criteria used to determine the significance of an impact are based on the model initial study checklist in Appendix G of the State CEQA Guidelines. The proposed project may result in significant impacts if it would:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project including, but not limited to the general plan, specific plan or zoning ordinance adopted for the purpose of avoiding or mitigating an environmental effect, where the inconsistency is evidence of an underlying significant physical impact.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

3.7.4 ENVIRONMENTAL IMPACTS

3.7.4.1 Physically Divide an Established Community

The proposed project and continued operation of the ISOCI facility will not divide an established community. The facility has been operating at the site since 1974 and is part of the established community. The facility is surrounded by industrial and commercial uses. The proposed project would not expand the site into non-industrial areas or block any existing access to roads, buildings, etc. The proposed project will not divide an established community and is part of the established community so that no significant adverse impacts are expected.

3.7.4.2 Conflict with Applicable Plans, Policies or Land Use Regulations

The ISOCI facility and adjacent areas are located in the City of Los Angeles' M3-1 (heavy industrial) zone (see Figure 3.7-1). Facility land uses are compatible within this zoning designation. ISOCI operations comply with this zoning designation. ISOCI is not planning to alter the type of land use at its facility, although it is planning on modifications to the facility.

The City of Los Angeles determined that the facility is "deemed to be approved" of its conditional use permit by City Ordinance 16320 adopted May 11, 1988. The City of Los Angeles has determined that the issuance of the Part B permit will allow a "major modification" to the facility and will trigger the requirement for a Conditional Use Permit. ISOCI has submitted the application for the conditional use permit. In addition, since the City has determined that the proposed project involves the significant expansion or modification of the facility, the requirement of Health and Safety Code Sections 25199 - 25199.14 (Additional Steps in the Land Use Decision Process Relative to Siting Specified Hazardous Waste Facility Projects), otherwise known as the Tanner process (AB 2948), apply to ISOCI. The Tanner

process establishes additional public notification requirements for new and modified hazardous waste facilities.

In order to comply with the Tanner process requirements, ISOCI has submitted a Notice of Intent to the Office of Permit Assistance to provide official notice of the facilities intent to proceed with the proposed project. The Office of Permit Assistance held a Pre-Application Meeting to inform the public of the nature, function, and scope of the project and the procedures that are required for approving applications for the project. The meeting was held on February 28, 1996 at the Lou Costello Senior Citizen Center, 3121 East Olympic Boulevard, Los Angeles, California (about one mile northeast of the ISOCI facility).

A number of additional steps will be required under the Tanner Process including: (1) A post-application meeting; (2) the formation of a local assessment committee; (3) a public hearing on the Draft Environmental Impact Report and Conditional Use Permit; and (4) a final decision by the local agency (City of Los Angeles).

In 1986, California enacted legislation (AB 2948, Tanner) providing the opportunity for each county, as well as four regions within the state, to prepare an analysis of its hazardous waste management issues, problems, and needs. Tanner represents an effort to reduce hazardous waste generation as well as siting environmentally, technically, and economically sound alternatives to land disposal of untreated hazardous wastes. In addition to the issuance of a conditional use permit, the project will trigger the Tanner requirements: siting requirements for specified hazardous waste facility projects (California Health and Safety Code, Sections 25199-25199.14).

Under Tanner, each county and region has been required to develop Hazardous Waste Management Plans which are intended to reflect and facilitate cooperation among counties, cities and other entities. The purpose of these plans is to protect public health, safety and the environment from problems caused by the improper management of hazardous wastes. The plans also coordinate a variety of existing efforts and an ongoing implementation program (or "action plan") to assure adequate hazardous waste management would be available and affordable to all area businesses and residents in the future.

The Los Angeles County Hazardous Waste Management Plan identifies the County's criteria that must be met for siting a hazardous waste management facility and identifies areas suitable for siting off-site hazardous waste management facilities. Portions of the City of Los Angeles are identified as generally suitable for off-site hazardous waste management facilities in the Plan. The portion of Los Angeles in which ISOCI is located is considered a "suitable" area because of the following criteria: (1) distance from residences; (2) lack of flood hazards; (3) lack of geological hazards; (4) lack of aqueducts and reservoirs; (5) lack of environmentally sensitive habitat areas; (6) proximity to major transportation routes; and (7) industrial zoned property, among others (Los Angeles County, 1988). In addition, the Plan highlights the need for additional hazardous waste management facilities to meet the growing demand in Los Angeles County and emphasizes that hazardous waste management facilities should be located as close as possible to waste generators. The ISOCI facility is within an area suitable for hazardous waste facilities since portions of the City of Los Angeles have been deemed an adequate location for hazardous waste treatment facilities (Los Angeles County, 1988).

Based on the County's Hazardous Waste Management Plan, facilities such as ISOCI are needed to help the County attain the goals of the Plan. Los Angeles County alone accounts for about 59 percent of Southern California's hazardous waste stream and the County does not have sufficient treatment capacity to manage all types of hazardous waste generated in the County (SCHWMA, 1994). It is predicted that the amount of hazardous waste generated by the County will continue to grow and that additional treatment facilities will be required to meet the estimated demand (see Table 3.7-1) (SCHWMA, 1994). The Southern California area continues to lack sufficient capacity to safely manage the total amount of hazardous waste generated (see Table 3.7-1). Therefore, the ISOCI facility helps the County attain the goals of the Hazardous Waste Management Plan and can provide treatment for a large portion of the waste streams generated in the Southern California area.

The issuance of the Part B permit for the ISOCI facility will not have any impact of the various hazardous waste site listings in the area. The ISOCI facility is expected to be in conformance with the siting criteria identified in the Hazardous Waste Management Plan. No geological hazards have been identified at the site since there is no evidence of faulting in the Holocene, i.e., no evidence of active faults in the area. In addition, there are no flood hazards, aqueducts or reservoirs, environmentally sensitive habitats, no projected impacts to ground water, low levels of air emissions, no recreational, cultural or aesthetic resources that would be impacted by the facility; the facility is more than 2,000 feet from the nearest residential area; the facility is close to major transportation routes; and the facility is close to areas of waste generation.

3.7.4.3 Conflict with Habitat Conservation of Natural Community Conservation Plans

The ISOCI facility has been operating at the site since 1974 and is surrounded by industrial and commercial uses. Native vegetation has been removed from the site to develop the existing tank farm, containment areas, driveways, etc. Native vegetation has also been removed from most other surrounding areas as the Boyle Heights area is densely developed and urbanized. There are no known habitat conservation or natural community conservation plans in the area. Further, the ISOCI facility is not expanding into other areas. Therefore, no impacts on habitat conservation or natural community conservation plans are expected.

3.7.5 MITIGATION MEASURES

No significant land use impacts were identified, therefore, no mitigation measures are required.

3.7.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impacts of the proposed project on land use are expected to be less than significant prior to mitigation.

3.8 NOISE

3.8.1 ENVIRONMENTAL SETTING

Noise is a by-product of urbanization and there are numerous noise sources and receptors in an urban community. Noise is generally defined as unwanted sound. The range of sound pressure perceived as sound is extremely large. The decibel is the preferred unit for measuring sound since it accounts for these variations using a relative scale adjusted to the human range for hearing (referred to as the A-weighted decibel or dBA). The A-weighted decibel is a method of sound measurement that assigns weighted values to selected frequency bands in an attempt to reflect how the human ear responds to sound. The range of human hearing is from 0 dBA (the threshold of hearing) to about 140 dBA which is the threshold for pain. Examples of noise and their A-weighted decibel levels are shown in Table 3.8-1.

Noise in the area near the ISOCI site is dominated by mobile sources. Truck traffic on Soto Street and Washington Boulevard is heavy. Additionally, railroad lines pass through the area adjacent to the ISOCI site headed to/from the Hobart rail yard. The major industrial sites in the area include EKCO Metals and the Ace Paper Company, as well as other manufacturing and commercial facilities. Virtually all of the area immediately surrounding the ISOCI facility contains commercial or industrial land uses. The nearest residential area is located a approximately one-quarter mile north of the facility. Residential areas are located south of ISOCI in the City of Huntington Park; southeast of the facility in the cities of Maywood and Bell; east of the facility in East Los Angeles; north of the facility in the Boyle Heights area of the City of Los Angeles; and west of the facility in the City of Los Angeles. The City of Vernon is located immediately south of the ISOCI facility. The entire City of Vernon is zoned for industrial and commercial land uses.

3.8.1.1 Current Facility Noise Levels

The principle noise sources in industrial areas are impact, friction, vibration, and air turbulence from air and gas streams. Operation of the existing ISOCI facility produces noise associated with truck traffic and operation of various facility equipment used in the storage and transfer of wastes.

Ambient noise level readings were taken around the ISOCI facility on January 26, 2005 at seven locations to determine the existing noise levels. Additional noise level readings were taken as trains traveled through the area. The locations of these noise readings are shown in Figure 3.8-1 and described in Table 3.8-2. Measurements were taken using a GenRad Sound Level Meter. Noise readings were taken at approximately four feet above the local grade at all locations. The measurements estimate the equivalent sound levels over a 24-hour period and were used to calculate the Community Noise Exposure Levels (see Table 3.8-3). The noise measurements included traffic along adjacent streets, noise from railroad traffic and noise from adjacent operations. Therefore, the noise levels identified in Table 3.8-3 include a number of sources other than ISOCI.

TABLE 3.8-1

Comparative Sound Levels

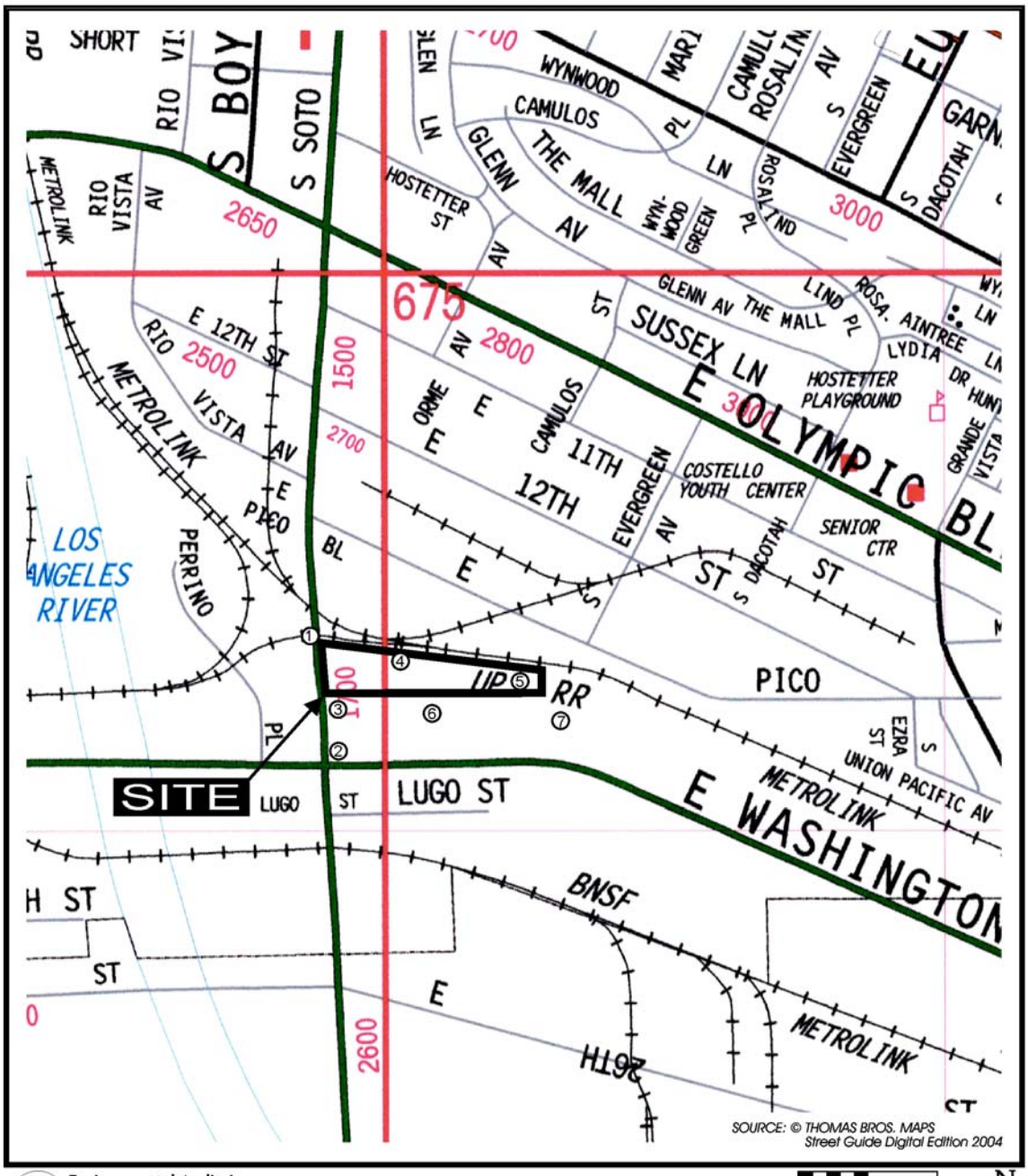
SOURCE	Sound Level (decibels)
Threshold of Hearing	0
Broadcast and Recording Studio	20
Bedroom at Night	30
Library	35
Quite Urban Nighttime	40
Dishwasher Next Room	50
Busy Office	55
Heavy Traffic at 300 feet	60
Normal Speech at 3 feet	65
Noisy Urban Daytime	80
Diesel Truck at 50 feet	90
Inside Subway	100
Jet Flyover at 1,000 feet	110

Reference: Acentech, 1993.

TABLE 3.8-2

Noise Sampling Location Descriptions

No.	LOCATION
1	On Soto Street next to rail overpass and northwest edge of ISOCI property. Dominant noise source is traffic on Soto Street and trains.
2	Northeastern corner of Soto Street and Washington Boulevard. Noise is dominated by traffic on Soto Street.
3	Entrance to ISOCI facility. Noise is dominated by traffic on Soto Street.
4	Middle of northern ISOCI facility, next to boilers, and adjacent to railroad tracks.
5	Eastern end of ISOCI property near gate.
6	Offsite and adjacent to ISOCI facility along middle of southern boundary.
7	Offsite and adjacent to ISOCI facility at eastern end of southern boundary near electrical pole.



Environmental Audit, Inc.

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NOISE MONITORING LOCATIONS
INDUSTRIAL SERVICE OIL COMPANY, INC.
1700 South Soto Street
Los Angeles, California

Project No. 1631

Figure 3.8-1

N:\1631\Rev.1\Noise Monitoring Map.cdr

TABLE 3.8-3

Existing Noise Levels (decibels)

LOCATION	NOISE READINGS (dBA)				Estimated CNEL
1	75	82	85(1)	75	79
2	75	72	74	80(2)	75
3	73	75	78	73	74.5
4	75	70	68	64(3)	63.5
5	60	65	58	62(4)	61
6	58	60	65	60	61
7	60	63	65	52	62.5

(1) 85 dBA with traffic and train. About 70 dBA with no traffic.
(2) About 80 dBA with trucks passing.
(3) Noise levels were measured between 82-85 dBA when a train was passing.
(4) Noise levels were measures around 70 dBA when trains went by.

Noise in the area is dominated by mobile sources, primarily traffic along Soto Street and Washington Boulevard, and rail traffic. Noise levels adjacent to Soto Street are dependent on the traffic levels. Noise readings at the 80-85 dBA level were measured as trucks passed by on Soto Street, and noise levels averaged about 68-70 dBA when little traffic was traveling on Soto Street. A large portion of the daytime noise on the east side of ISOCI (Locations 1, 2, 3 and 4), is associated with vehicles, trucks and rail traffic traveling on adjacent streets, highways and railroad tracks. On-site noise levels as high as 85 dBA were measured along the northern boundary of the ISOCI facility (Location 4) as trains went by. Noise levels average about 70 dBA without train traffic. Therefore, noise at the facility is heavily dependent on adjacent traffic. The equipment at the ISOCI site that produces noise is limited to trucks and rail cars moving in and out of the facility, boilers and pumps. Most of the major equipment, e.g., storage tanks, are not sources of noise. On-site noise levels drop to 58 - 65 dBA without adjacent traffic (Location 5).

In general, the noise level in the Los Angeles area near the ISOCI facility is compatible with the industrial nature of the immediately surrounding area with noise levels of generally less than 80 decibels at the facility boundaries. The overall ambient noise levels during the night are lower, largely due to the reduced traffic on local streets. ISOCI operates on a 24-hour basis. The overall noise impact on residential areas from the ISOCI facility is expected to be minimal since the nearest residential area is located over one-quarter mile north of the facility, just north of Olympic Boulevard, and there are a number of other existing noise sources in the area, e.g., the 5, 10 and 60 Freeways. The location of the closest residential populations in the vicinity of the ISOCI facility are shown on Figure 3.7-1 (area designated as low medium residential or Lm II).

The ambient noise readings indicate that the Community Noise Exposure Levels are generally below the City of Los Angeles noise limits of 70 dBA at the facility boundaries. The exception to this is some of the noise readings adjacent to Soto Street. Most of the noise along Soto Street is attributed to traffic and exceeds the City of Los Angeles noise ordinance. The Community Noise Exposure Levels at other portions of ISOCI boundaries are less than 70 dBA.

3.8.1.2 Traffic Noise

The Federal Highway Administration Highway Traffic Noise model was used to estimate the current noise levels associated with traffic in the vicinity of the site. The noise model was run during peak hour traffic conditions because that is the time with the highest number of vehicles/trucks and the highest traffic-related noise. The noise model was run for peak hour traffic conditions assuming that 10 percent of the total traffic consisted of trucks. The model indicated that the noise level within 30 feet of the street (Soto Street) would be 75 dBA. This noise level includes the trucks and employee vehicles associated with the ISOCI facility.

Trucks and employee vehicles from the ISOCI site would generate noise off-site during the commute to/from the facility. The contribution of ISOCI worker and truck traffic to the local traffic in the greater Los Angeles area is negligible since the traffic on the local streets and freeways is orders of magnitude greater than the traffic generated by ISOCI. The total peak hour traffic consisted of about 4,300 of which ISOCI contributes about 15 vehicles.

Railroad operations are generally classified into either line operations or yard operations. Line operations consist of the movements of trains of various types over the main line and local tracks; yard operations are the various activities concentrated in a railway terminal. Yard operations generate noise through the disassembling and recoupling of cars to form new trains, and the maintenance and repair of cars and locomotives (City of Los Angeles, 1998). Both types of train noise are generated in the area since railroad tracks are located adjacent to the ISOCI facility and rail yards are located east of the facility.

Train noise is produced when ISOCI receives waste shipments by rail car because of maneuvering at the facility spur. Train noise is produced by the diesel engines and the train wheels moving on steel track. Engine noise varies with the torque exerted to accelerate or maintain speed of the train, while wheel noise varies with the speed and the number of wheels on local trains. The loudest noise within the area surrounding ISOCI occurs as trains are passing by, usually heading towards the Hobart rail yard. Trains leaving and arriving at the ISOCI site would also generate noise due to acceleration and wheel noise. The closest residential areas and sensitive populations are located about one-quarter of a mile away so that noise impacts associated with train movements at the ISOCI site are expected to be minimal.

3.8.2 REGULATORY BACKGROUND

There are no federal noise standards that directly regulate environmental noise from construction or project operation. Federal regulations safeguard the hearing of workers exposed to occupation noise. The U.S. Environmental Protection Agency has developed guidelines on recommended

maximum noise levels to protect public health and welfare. For example, 55 decibels is the maximum annual average day-night level in outdoor areas (City of Los Angeles, 1998).

The State Department of Aeronautics and the California Commission of Housing and Community Development have adopted the Community Noise Equivalent Level (CNEL). The Community Noise Equivalent Level is the adjusted noise exposure level for a 24-hour day and accounts for noise source, distance, duration, single event occurrence frequency, and time of day. The Community Noise Equivalent Level considers a weighted average noise level for the evening hours, from 7:00 p.m. to 10:00 p.m., increased by five dBA, and the late evening and morning hour noise levels from 10:00 p.m. to 7:00 a.m., increased by 10 dBA. The daytime noise levels are combined with these weighted levels and averaged to obtain a Community Noise Equivalent Level value. The adjustment accounts for the lower tolerance of people to noise during the evening and nighttime periods relative to the daytime period.

Another noise standard is the day-night average sound level (Ldn). The Ldn is a combination of daytime and nighttime "A" weighted noise levels with the nighttime values weighted by an additional 10 dBA to account for the lower tolerance of people to noise during the nighttime period relative to the daytime period. Ldn is approximately 1/2 decibel lower than the estimated Community Noise Equivalent Level value, and can be considered synonymous with the Community Noise Equivalent Level.

Land use compatibility guidelines have been developed by the California Governor's Office of Planning and Research. These guidelines are outlined in Table 3.8-4 and outline noise exposure levels (Ldn or Community Noise Equivalent Level) which are normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable at various land uses.

The Noise Element of the General Plan for the City of Los Angeles sets forth standards to control noises on land use zoning as shown in Table 3.8-5. The City's Noise Ordinances (Nos. 1156, 363 and 11574) apply to the ISOCI facility. The allowable level in residential areas during the day is 50 dBA and industrial areas is 70 dBA. The allowable level in residential areas during the night is 40 dBA and industrial areas is 70 dBA. The City of Los Angeles Noise ordinance prohibits construction noise between 9:00 p.m. and 7:00 a.m.

California Code of Regulations Title 24, Noise Insulation Standards, requires that new hotels, motels, and multifamily dwellings located in an area where the Community Noise Equivalent Level is greater than 60 dBA have an acoustical analysis prepared showing that the proposed design will limit interior noise to less than 45 dBA Community Noise Equivalent Level.

The federal Occupational Safety and Health Administration (OSHA) has established acceptable occupational noise exposure levels (Title 29 of the Code of Federal Regulations, Section 1910.95). These regulations state that employees shall not be exposed to occupational noise levels greater than 90 dBA without adequate hearing protection. If occupational noise levels exceed 85 dBA the employer must establish a hearing conservation program as described under Title 29 of the Code of Federal Regulations, Section 1910.95, paragraphs (c) through (o). For occupational noise exposure levels greater than 90 dBA the daily period of noise exposure must

be decreased from eight hours as described under Title 29 of the Code of Federal Regulations, Section 1910.95, paragraphs (b).

TABLE 3.8-4

LAND USE NOISE COMPATIBILITY MATRIX

LAND USE	COMMUNITY NOISE EXPOSURE CNEL (decibels)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single Family, Duplex, Mobile Homes	50-60	55-70	70-75	Above 70
Multi-Family Homes	50-65	60-70	70-75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	Above 80
Transient Lodging – Motels, Hotels	50-65	60-70	70-80	Above 80
Auditoriums, Concert Halls, Amphitheaters	-	50-70	-	Above 65
Sports Arena, Outdoor Spectator Sports	-	50-75	-	Above 70
Playgrounds, Neighborhood Parks	50-70	-	67-75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-75	-	70-80	Above 80
Office Buildings, Business and Professional Commercial	50-70	67-77	Above 75	-
Industrial, Manufacturing, Utilities, Agriculture	50-75	70-80	Above 75	-

Source: City of Los Angeles, 1998.
Normally Acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable: New construction or development should generally not be undertaken.

TABLE 3.8-5

Presumed Minimum Ambient Noise Levels Db(A)*

ZONE	DAY	NIGHT
Residential	50	40
P,PB,CR,C1,C2,C4,C5,CM	60	55
M1,MR1,MR2	65	65
M2,M3	70	70

* The "Presumed Minimum Ambient Noise Levels" shown above are to be used only if the true "measured" ambient noise levels are less than the values designated. In most cases, when there is a difference between the measured ambient and the presumed ambient, the greater level will be allowed.

The more sensitive land uses for noise impacts are considered to be residential areas, schools, libraries, churches, hospitals, auditoriums, and outdoor recreation areas. Noise sensitivity factors include: interference with speech communication; subjective judgments of noise acceptability and relative noisiness; need for freedom from noise intrusion; and sleep interference criteria. The closest sensitive land uses to ISOCI are the residential areas which are located about one-quarter mile north of the facility, on the north side of Olympic Boulevard. The location of the residential areas (the closest sensitive populations) are shown in Figure 3.7-1.

3.8.3 THRESHOLDS OF SIGNIFICANCE

Impacts on noise will be considered significant if any of the following conditions are met:

- Construction activities would exceed the ambient noise level by five decibels at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or any time on Sunday.

- Expose existing receptors to, or generate noise levels, resulting from the project in excess of health standards established by the local general plan or noise ordinance, or to cause the ambient noise level measured at the property line of affected uses to increase by 3 dBA Community Noise Equivalent Level (CNEL).

- Expose persons to or generate excessive groundborne vibration or groundborne noise levels.

- Expose persons in the project area to excessive noise levels for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public or public use airport.

The significance for noise were taken from the Los Angeles CEQA Thresholds Guide (City of Los Angeles, 1998).

3.8.4 ENVIRONMENTAL IMPACTS

3.8.4.1 Construction Activities Would Exceed the Ambient Noise Level by Five Decibels at a Noise Sensitive Use Between the Hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, Before 8:00 a.m. or After 6:00 p.m. on Saturday, or Any Time on Sunday.

Construction activities for the project will produce noise as a result of operation of construction equipment. The highest noise level from the construction will be during equipment installation. Typical sound levels for various construction equipment are presented in Table 3.8-6.

TABLE 3.8-6

NOISE LEVEL RANGES OF TYPICAL CONSTRUCTION EQUIPMENT

EQUIPMENT	Noise Levels[1] (decibels at 50 feet)
Front Loader	73-86
Trucks	82-95
Cranes	75-88
Vibrator	68-82
Saws	72-82
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

Source: City of Los Angeles, 1998.
(1) Machinery equipped with noise control devices or other noise-reducing design features generate less noise

Because of the nature of the construction activities, the types, number, operation time and loudness of construction equipment will vary throughout the construction period. As a result, the sound level associated with construction will change as construction progresses. Construction noise sources will be temporary and ceased following construction activities. The estimated noise level during equipment installation is expected to be an average of about 80 dBA at 50 feet from the center of construction activity. Using an estimated six dBA reduction for every doubling distance, the noise levels at the closest noise sensitive use (about 1,500 feet north) would be about 50 dBA or below background noise levels. Further, construction activities will occur between 7 am and 5 pm Monday through Friday, so that construction activities and the related noise during the more sensitive nighttime hours are avoided. Noise levels associated with construction would be in the 65-75 dBA range in areas near the ISOCI facility; however, these areas are either commercial or industrial and the current noise levels are in the same noise range. Due to the urban nature of the area (including vehicle/truck traffic along Soto Street and Washington Boulevard and the adjacent rail traffic), the increase in construction noise is not expected to be noticeable. Therefore, no significant noise impacts during construction activities are expected.

Workers exposed to noise sources in excess of 90 dBA for an 8-hour period will be required to wear hearing protection devices that conform to Occupational Safety and Health Administration/National Institute for Occupational Safety and Health (NIOSH) standards. Since

the maximum noise levels during construction activities are expected to be 80 decibels, no significant impacts to workers during construction activities are expected.

3.8.4.2 Expose Existing Receptors or Generate Noise Levels in Excess of Los Angles Noise Ordinance

The proposed project will add equipment to the existing ISOCI site so that there will be additional noise sources at the facility. These noise sources include new equipment associated with the ethylene glycol distillation unit and solids treatment system. The type of equipment is expected to include new motors, pumps, mixers, centrifuge, and heater. Most of the equipment will operate sporadically throughout the day. The maximum noise impact from this equipment is expected to be about 70 decibels.

The estimated ambient noise levels for operation of the proposed project are shown in Table 3.8-7. The changes in noise associated with the proposed modifications at ISOCI are expected to be a maximum of 1-2 dBA within the immediate area. No increase in noise at sensitive land uses is expected. Therefore, the overall noise levels associated with the proposed project are not expected to noticeably change so that no significant increase in noise is expected.

TABLE 3.8-7

PROJECT CONSTRUCTION NOISE LEVELS

Location(1)	Baseline Noise Levels (decibels)(2)	Distance to Noise Sampling Location from Facility (feet)	Estimated Sound Level at Noise Sampling Location (decibels)	Total Sound Level at Noise Sampling Location (decibels)(3)	Increased Noise Levels at Noise Sampling Locations due to Construction Activities (decibels)
1	79	75	69	79.4	0.4
2	75	200	58	75.1	0.1
3	74.5	75	69	75.6	1.1
4	63.5	Onsite(4)	70	--	--
5	61	Onsite(4)	70	--	--
6	61	200	58	62.7	1.7
7	62.5	400	52	62.9	0.4
Sensitive Use	60(5)	1,500	40	60	0

(1) Refers to the sampling locations identified in Figure 3-4.
(2) Includes all ambient noise sources. Noise levels are from Table 3-13.
(3) The total sound level was calculated using the following formula: $T_{sl}=10\log_{10}(10^{Bsl/10} + 10^{Osl/10})$ where T_{sl} = the total sound level (dBA); B_{sl} = baseline sound level (dBA); and O_{sl} = operational sound level (dBA).
(4) Noise increase not estimated for onsite locations.
(5) Estimated based on traffic levels on Olympic.

In general, the noise level in the Los Angeles area near the ISOCI facility is compatible with the industrial nature of the immediately surrounding area with noise levels of less than 80 decibels. These noise levels are not expected to be significant because industrial facilities are located adjacent to and near the ISOCI site.

No noise impact on sensitive populations is expected since the nearest sensitive populations are located approximately one-quarter mile north of the facility, just north of Olympic Boulevard, and there are a number of other existing noise sources in the area. In addition, the typical noise reduction provided by buildings is 12 to 18 decibels (with windows partially open) (State of California, 1987). Therefore, the estimated noise levels inside the homes are expected to be less than those outdoors.

Traffic Noise

Trucks and employee vehicles from the ISOCI site would generate noise off-site during the commute to/from the facility. The contribution of ISOCI to the local traffic in the greater Los Angeles area is negligible since the traffic on the local streets and freeways is orders of magnitude greater than the traffic generated by ISOCI.

ISOCI has constructed an additional rail spur near the existing rail spur in order to increase the number of rail cars used for the transfer of hazardous waste. Noise from local trains during maneuvers and moving to and from the site would typically range between 68 and 90 decibels at 100 feet (City of Los Angeles, 1974). The issuance of the Part B permit is not expected to increase the noise associated with trains because the ISOCI facility is located adjacent to existing railroad tracks that are heavily used by rail traffic to access the Hobart rail yard. While additional local train noise could be generated whenever ISOCI would receive or ship waste shipments by rail car, noise increases would not be noticeable due to the existing heavy train traffic in the area. The noise associated with rail movements in/out of the ISOCI facility is less than noise levels associated with trains traveling into the rail yards because they are traveling at greater speeds. The rail traffic associated with ISOCI is minimal in comparison to the overall rail traffic in the area. Therefore, no significant impacts associated with the continued operation of the ISOCI facility are expected.

The City of Los Angeles has established a 70 decibel level as the noise limit in industrial areas (see Table 3.8-5). The noise levels associated with the continued operation of the ISOCI facility are expected to be less than 70 decibels as shown in Table 3.8-7. Locations 1-3 are located along Soto Street and noise at these locations generally is associated with traffic along Soto Street and other sources unrelated to ISOCI. Therefore, the ISOCI facility is expected to comply with the Los Angeles City noise ordinance so that no significant impacts on noise during operations are expected.

The Federal Highway Administration Highway Traffic Noise model was used to estimate the noise increase associated with the increase in traffic from ISOCI. The noise model was run during peak hour traffic conditions because that is the time with the highest number of vehicles/trucks and the highest traffic-related noise. The noise model was run assuming that the peak hour traffic increased by an additional 15 vehicles (for a total of 30 vehicles) and that 10

percent of the total truck traffic occurred during peak hour traffic. The model indicated that the noise level within 30 feet of the street (Soto Street) would be 75 dBA. This can be compared to the existing noise level for traffic which also predicted a 75 dBA noise level at 30 feet from Soto Street. Therefore, the proposed project would have no significant impact on traffic related noise in the vicinity of the site, i.e., no increase in noise levels.

3.8.4.3 Exposure of Persons to Excessive Vibration

Both construction and operation of development projects can generate ground-borne vibration. In general, demolition of structures during construction generates the highest vibrations. The proposed project will not require the demolition of any structures, minimizing the potential for ground-borne vibration. Heavy trucks can also generate ground-borne vibrations, which vary depending on vehicle type, weight, and pavement conditions.

The closest sensitive receptors are located one one-quarter mile north of the ISOCI facility on Soto Street. Short-term vibration could occur as a result of construction activities; however, excessive groundborne vibration activities such as pile driving would not be required. Therefore, significant impacts associated with vibration during construction activities are not expected.

With respect to operational impacts, groundborne vibration in the project vicinity would continue to be generated by heavy trucks traveling along Soto Street and the local freeways. Vibration from a truck would be about 63 vibration decibels (VdB) at a reference distance of 50 feet. The threshold for human perception of vibration is about 65 VdB (FTA, 1995). Therefore, the vibrations associated with trucks are not expected to be significant.

3.8.4.4 Exposure of Persons to Excessive Noise Levels Within an Airport Land Use Plan or Within Two Miles of an Airport.

The proposed project is not located within an airport land use plan or within the vicinity of a private airstrip; therefore, the project would not expose persons in the project to excessive noise levels associated with airport operations. No impacts are expected due to exposure of persons to airport noise sources.

3.8.5 MITIGATION MEASURES

E-1: Construction activities must be limited to the hours of 7:00 a.m. to 9:00 p.m. Limiting the hours of construction will avoid construction during the more sensitive nighttime hours reducing the construction noise impacts of the proposed project.

E-2: Construction equipment will be fitted with mufflers, silencers or other appropriate measures to reduce noise. The use of mufflers and silencers can minimize the noise levels associated with construction equipment. The amount of reduction varies and cannot be determined at this time.

3.8.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts on noise due to construction activities associated with the proposed project are expected to be less than significant.

3.9 PUBLIC SERVICES

3.9.1 ENVIRONMENTAL SETTING

3.9.1.1 Fire

The Los Angeles City Fire Department provides fire protection to the ISOCI facility. First response to an emergency at the ISOCI facility would be sent from Fire Station No. 17. If additional back up were needed, units from other stations would be called in (Personal Communication, Captain Dennison, Los Angeles City Fire Department, Station No. 17, January, 2005). The following is information about the Los Angeles City Fire Stations that would most likely respond to an emergency at the ISOCI facility.

Fire Station No. 17: Located less that mile from ISOCI, at 1601 S. Santa Fe Avenue, Los Angeles. The station hosts two engine companies and a ladder truck company. There are 10 firefighters on duty at all times. All firefighters at this station are trained as Emergency Medical Technicians. This station is the first response unit for an alert from ISOCI; response time is approximately three minutes. (Personal Communication, Captain Dennison, Los Angeles City Fire Department, Station No. 17, January, 2005).

Fire Station No. 14: Located three miles from ISOCI at 3401 S. Central Avenue, Los Angeles. The station hosts two engine companies and a ladder truck company. There are 10 firefighters on duty at all times. Additionally, there are four paramedics assigned to Emergency Vehicles at this station. All firefighters at this station are trained as Emergency Medical Technicians. If necessary, a backup task force would be sent from this station. (Personal Communication, Captain Dennison, Los Angeles City Fire Department, Station No. 17, January, 2005).

Fire Station No. 25: Located 1.5 miles from ISOCI at 2927 Whittier Boulevard, Los Angeles. The station hosts one engine, supported by four firefighters. Additionally, there are two paramedics assigned to an Emergency Vehicle at this station. If a backup were necessary, an engine would be sent from this station. (Personal Communication, Captain Dennison, Los Angeles City Fire Department, Station No. 17, January, 2005).

Fire Station No. 4: Located four miles from ISOCI at 800 N. Main Street, Los Angeles. The station hosts two engine companies and a ladder truck company. There are 10 firefighters on duty at all times. Additionally, there are four paramedics assigned to Emergency Vehicles at this station. All firefighters at this station are trained as Emergency Medical Technicians. If necessary, a backup task force would be sent from this station. If a Hazardous Materials Squad were necessary, a team would be sent from

this station. The Hazardous Materials Rig from this station is manned by four personnel. (Personal Communication, Captain Dennison, Los Angeles City Fire Department, Station No. 17, January, 2005).

The ISOCI facilities is located within one mile of a fire station; the facility is not located in a brush hazard area, hillside or area with inadequate fire hydrant service; the facility has adequate and unobstructed access for fire trucks and the intersections near the facility are not operating with level of service E or F (see subchapter 3.10) indicating that no significant impact on fire protection would be expected. In addition to the Los Angeles City Fire Department, the ISOCI facility has an onsite fire extinguishing system. ISOCI is equipped with one and one-half inch water lines which lead to eight outlets which surround the hazardous waste storage area. Two fire hoses are available for connection in the event of a fire. Eight ABC type fire extinguishers (suitable for chemical and electrical fires) are provided throughout the facility. The ISOCI employee training program includes response to fires and explosions.

3.9.1.2 Police

The Los Angeles City Police Department, Hollenbeck Division, located at 2111 E. 1st Street, Los Angeles, has primary responsibility for police services for the ISOCI facility. The average response time to the facility would be approximately six minutes. Should general police backup be required, additional units from the Hollenbeck Division would be called in, as well as units from other divisions based on situational needs and availability. Specialized backup (i.e. bomb squad, SWAT teams, etc.) would be dispatched by LAPD, based on proximity, availability, and the nature of the event at the facility (Personal Communication, Sergeant Davis, Los Angeles City Police Department, Hollenbeck Division, January, 2005).

The ISOCI facility is entirely fenced and has two gated entrances. The east gate provides rail access to the site. This gate remains locked at all times except when rail access is necessary, in which case it is unlocked and opened by facility or railroad employees with security responsibility for railcar movement. The west gate is the primary entrance to the facility and is used by workers, visitors, and all trucks. The west gate is locked when the facility is not in operation.

3.9.1.3 Schools and Parks

The ISOCI facility is located in a heavily urbanized area, surrounded by other industrial and commercial land uses. The closest residential areas are located about one-half mile north of the facility. The closest school to the ISOCI facility is located about one–half mile north of the facility, north of Olympic Boulevard on Decotah Street, in the Boyle Heights community. Other schools are located about one mile north of the facility on Soto Street.

Due to the intense urbanization in the area, few parks are located in the vicinity of the ISOCI facility. The closest parks are located about one-half mile northeast of the facility in the residential areas near Olympic Boulevard. The local school sites also provide areas for recreational activities.

3.9.2 REGULATORY BACKGROUND

The City of Los Angeles General Plan contains policies and objectives that address the provision of police and fire services in the City of Los Angeles. These policies and objectives deal with insuring adequate service infrastructure as population growth occurs via monitoring of services; support the provision of additional police; and pursuing additional funding for additional officers.

The proposed project would be required to comply with standard design requirements in accordance with the Uniform Building code and the Los Angeles City Fire Code. The Fire Protection and Prevention Plan, an element of the City's General Plan, serves as a guide to City departments, government offices, developers, and the public for the construction, maintenance and operation of fire protection facilities located within the City of Los Angeles. Policies and programs addressed by the Plan include the following: fire station distribution and location; required fire flow (i.e., water supply); fire hydrant standards and locations; access; emergency ambulance service; and fire prevention activities.

3.9.3 THRESHOLDS OF SIGNIFICANCE

Impacts to public services will be considered significant if:

- Additional service needed from the City of Los Angeles Police Department requires a new police station or the expansion, consolidation, or relocation of an existing facility to maintain service.

- Additional service needed from the City of Los Angeles Fire Department requires a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

- The project would increase the population of the area such that additional schools or recreational facilities would be required to adequately service the area.

3.9.4 ENVIRONMENTAL IMPACTS

3.9.4.1 Impact on Police Service

Construction activities are not expected to require additional services from the police department in the Los Angeles area. The facility is gated and locked during non-business hours. Access to the site is monitored during business hours. All construction activities will take place within the confines of the existing facility. Therefore, impacts to police services during the construction period are considered to be less than significant.

Security will continue to be maintained at the ISOCI facility. The ISOCI facility perimeter will continue to be secured, fenced and gated. The east gates will remain locked, except when rail cars are moved to and from the site. The west gate is monitored during business hours and

locked when the facility is closed. A closed circuit television system will monitor the access gate to the facility 24 hours a day. Because of the security measures at the site, the need for police services are not expected to increase due to implementation of the proposed project. Therefore, the impacts to police due to the operation of the facility are considered to be less than significant.

3.9.4.2 Impact on Fire Service

Construction activities are not expected to require additional services from the fire department in the Los Angeles area. Construction activities will occur within the confines of the existing facility. Appropriate fire safety precautions will need to be taken in areas where used or recycled oil is stored. Compliance with existing fire safety measures is expected to minimize fire hazards. Therefore, impacts to fire services during construction activities are considered to be less than significant.

The issuance of the Part B permit would add new treatment equipment to the site. New hazards include additional waste streams that include ignitable wastes. ISOCI will be required to comply with the local fire regulations which helps to minimize the potential for fire. All ignitable wastes are required to be stored at least 50 feet from the facility boundary. The design of the secondary containment systems took into consideration the protective distances required by the City of Los Angeles Fire Department. Of particular concern was the spacing between the storage tanks, the spacing between tanks and containment walls, and the spacing between tanks and the property line. Also considered was the requirement for a fire lane around the tank storage areas for adequate fire protection. The ignitable waste storage tanks have been designed to meet UL 142 standards and shall be equipped with flame arresters. Smoking and sources of flame are not permitted within 50 feet of the ignitable waste storage areas.

ISOCI will continue to maintain on-site fire-fighting equipment. Fire extinguishing capability at the ISOCI facility is provided by one and one-half inch water lines which lead to eight outlets which surrounding the hazardous waste storage area. Fire hoses are available for connection in the event of a fire. Type ABC fire extinguishers also are provided throughout the facility.

Copies of the contingency plan and emergency procedures were provided to the local authorities (City police and fire, local hospitals, and state and local emergency response teams) for review, comment and use during an emergency. The contingency and emergency plans and procedures, and the hazardous materials business plan will need to be updated to include the Part B proposed modifications, new equipment and new materials/wastes stored on-site. These plans and procedures will notify the appropriate authorities, including the fire department or potential fire hazards and their locations prior to any emergency.

Based on the above, the proposed project is not expected to require additional personnel at the City of Los Angeles Fire Department. Therefore, no significant impacts are expected on the City of Los Angeles Fire Department in providing fire protection to the ISOCI facility.

3.9.4.3 Schools and Parks

ISOCI expects to hire an additional 10-12 employees to operate the facility as the new equipment associated with the Part B becomes operational. The increase in employees is expected to come from the existing labor pool in southern California. The increase of 10-12 employees is small compared to the large labor pool in southern California. The proposed project is not expected to increase the population in the area, require additional housing, schools or parks. The project impacts on schools and parks is less than significant.

3.9.5 MITIGATION MEASURES

The issuance of the Part B permit to ISOCI will allow the facility to continue to operate. The impacts of the continued operation of the ISOCI facility on police service, fire service, schools and parks are considered to be less than significant. Therefore, no mitigation measures are required.

3.9.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impacts of the continued operation of the ISOCI facility on police service, fire service, schools and parks are considered to be less than significant.

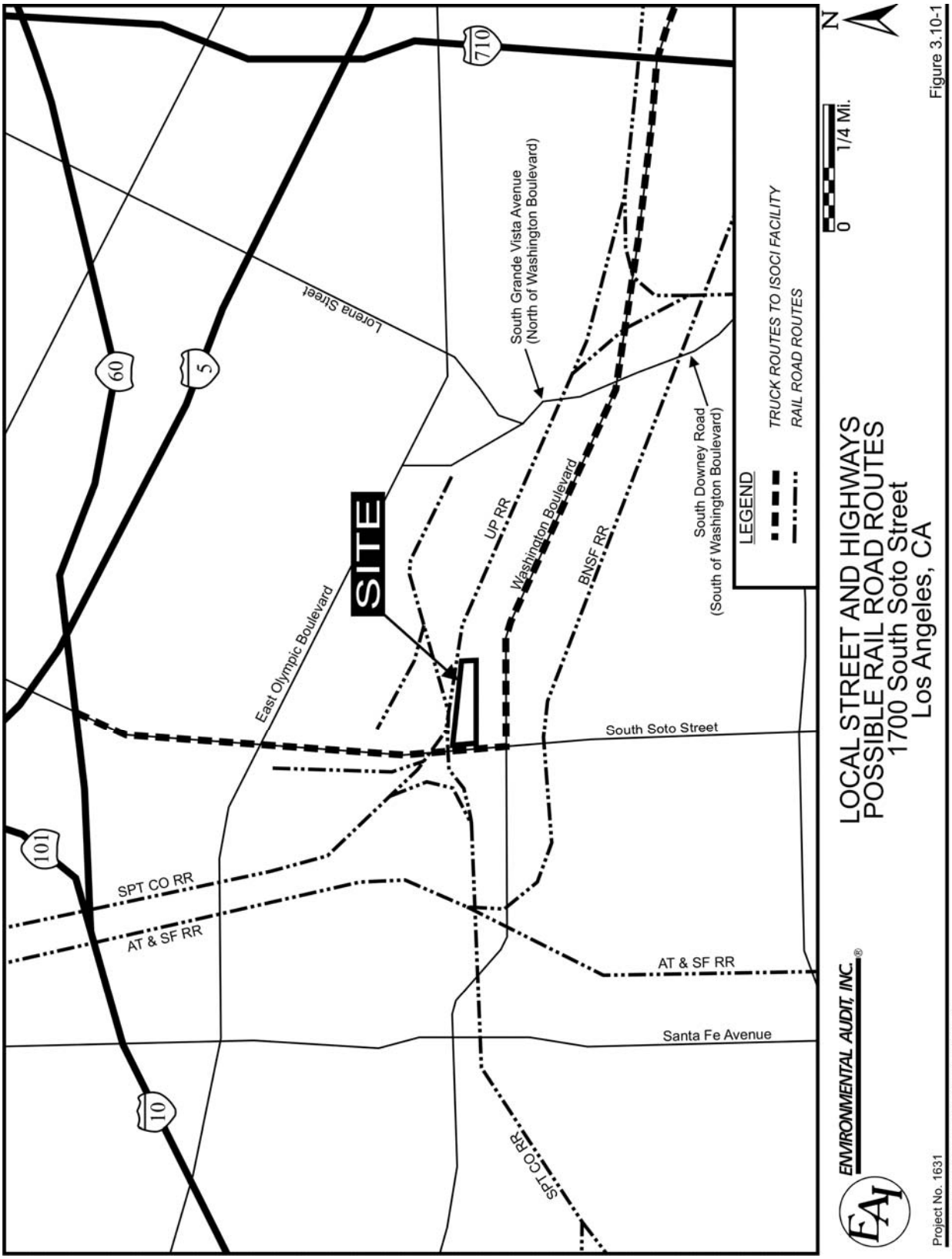
3.10 TRANSPORTATION AND TRAFFIC

3.10.1. ENVIRONMENTAL SETTING

3.10.1.1 Regional Circulation

The regional highway network surrounding the ISOCI facility is shown in Figure 2-1. In general, a number of major freeways are located in the general vicinity of the ISOCI site including Interstate 10, Interstate 5, Interstate 60, Interstate 101 and Interstate 710. Two major freeways provide access to the site: Interstate 5 runs east-west to the north of the facility; Interstate 710 runs north-south to the east of the facility.

The area also is served by a number of railroads. The Southern Pacific railroad runs north-south, just west of the ISOCI facility, then turns and heads west ward (near Washington Boulevard). The Union Pacific railroad right-of-way runs east-west, on both the north and south sides of the ISOCI facility. The Atchison Topeka and Santa Fe rail yard is approximately one mile east of the ISOCI facility, between Washington Boulevard and E. 26th Street. Figure 3.10-1 indicates the possible railroad access routes to the ISOCI facility. The routes taken by rail cars to the site can vary considerably as the routes are determined by the railroad companies and not by ISOCI. Therefore, there are no specified routes for rail cars. Most of the rail cars are expected to arrive at ISOCI from the Atchison Topeka and Santa Fe railroad yard, via the Union Pacific right-of-way that leads to the facility.


710
60
5
101
10
Lorena Street
South Grande Vista Avenue
(North of Washington Boulevard)
South Downey Road
(South of Washington Boulevard)
SITE
UP RR
Washington Boulevard
BNSF RR
East Olympic Boulevard
South Soto Street
SPT CO RR
AT & SF RR
AT & SF RR
Santa Fe Avenue
SPT CO RR
LEGEND
TRUCK ROUTES TO ISOCI FACILITY
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LOCAL STREET AND HIGHWAYS
POSSIBLE RAIL ROAD ROUTES
1700 South Soto Street
Los Angeles, CA
ENVIRONMENTAL AUDIT, INC.
EAI
Project No. 1631
N:\1631\rev.1\Local Streets and Highways (rev.1).cdr

Figure 3.10-1

3.10.1.2 Local Highways

There are two transportation routes to the facility:

1. Traveling east/west on the Interstate 10/60 freeway, exit at Soto Street. Travel south on Soto to the ISOCI facility.

2. Traveling north/south on the Interstate 710 freeway, exit at Washington Boulevard, travel west on Washington Boulevard, and north on Soto to the ISOCI facility.

Vehicle access to the ISOCI site is provided by Soto Street, a local street which connects with Washington Boulevard to the south and Olympic Boulevard to the north. Soto Street is controlled with street lights at its intersections with Olympic Boulevard and Washington Boulevard. Washington Boulevard is controlled by street lights at Downey Road and at the on/off ramps to the Interstate 710 freeway. The transportation routes are shown in Figure 3.10-1.

Soto Street carries over 40,000 vehicles a day and is designated a major north-south highway through the eastside portion of the City of Los Angeles. Washington Boulevard is designated a major east-west highway by the City of Los Angeles (City of Los Angeles, 1991).

3.10.1.3 Local Traffic Conditions

The operating characteristics of an intersection are defined in terms of the Level of Service (LOS), which describes the quality of traffic flow based on variations in traffic volume and other variables such as the number of signal phases. Levels of Service are rated on a scale from A through F. Levels of Service A to C operate well. Level C normally is taken as the design level in urban areas outside a regional core. Level D typically is the level for which a metropolitan area street system is designed. Level E represents volumes at or near the capacity of the street which will result in possible stoppages of momentary duration and fairly unstable traffic flow. Level F occurs when a street is overloaded and is characterized by stop-and-go (forced flow) traffic with stoppages of long duration.

The City of Los Angeles traffic engineer was contacted to determine if traffic data and turn count data were available for the intersections in the vicinity of the site. No traffic data were available so traffic and turn counts were taken during January, 2005 in order to complete the level of service.

Peak hour Level of Service analyses for 2005 were developed for intersections in the vicinity of the site (see Table 3.10-1). The locations of these intersections are presented in Figure 3.10-1. The Level of Service analysis indicates most intersections near ISOCI operate at Levels A to C during peak hours. During the a.m. peak hour, the only intersection operating below Level C is Soto Street at Washington Boulevard, which operates at Level D. During the p.m. peak hour, three intersections operate below Level C. Soto Street at Washington Boulevard and Soto Street at Olympic Boulevard. operate at Level D, and Washington Boulevard at Downey Road operates at Level E.

TABLE 3.10-1

ISOCI Baseline Level of Service Analysis and Intersection Capacity Utilization Ratios

INTERSECTIONS	A.M. LOS	Peak Hour V/C*	P.M. LOS	Peak Hour V/C*
Soto Street at Washington Boulevard	D	0.837	D	0.898
Downey Road at Washington Boulevard	B	0.616	E	0.915
Washington Boulevard at I-710 Northbound Freeway Off-ramp	A	0.461	A	0.474
Washington Boulevard at I-710 Southbound Freeway Off-ramp	A	0.527	A	0.553
Soto Street at Olympic Boulevard	C	0.788	D	0.827
Lorena at Olympic Boulevard	A	0.562	A	0.519

* V/C = Volume to Capacity Ratio

The Level of Service analysis includes traffic associated with ISOCI since the facility was operating during the period that traffic data were collected. Traffic associated with the ISOCI facility includes an estimated 18 workers and about 45 trucks per day. Sufficient parking is provided for workers within the boundaries of the ISOCI facility. All trucks load/unload within the confines of the existing facility. The details of the computer modeling runs for the level of service analysis are provided in Appendix C.

The facility currently accepts an average of about five rail cars per week at the facility.

3.10.1.4 Public Transportation

The ISOCI facility is located in the Boyle Heights portion of the City of Los Angeles (City of Los Angeles, 1991). This area requires a flexible transportation system because about 36 percent of the residents in this area do not own automobiles and rely on public transportation. Bus service in the area is provided by the Southern California Rapid Transit District. In general, the level of bus service in an east-west direction through the area has been fairly adequate, mainly as a result of the Community's proximity to the Central portion of the City of Los Angeles and the orientation of the street system (City of Los Angeles, 1991). Bus service in a north-south direction is less efficient. Bus service also has been reinforced by Dial-A-Ride, a demand-response service available to senior and handicapped residents (City of Los Angeles, 1991). Light rail or the Metrolink also provides access to/from the central Los Angeles area and runs adjacent to the ISOCI facility.

3.10.2 REGULATORY BACKGROUND

The proposed project is subject to the requirements of the Los Angeles Department of Transportation for issues related to local streets and access to the site from those streets. If project-related traffic would affect conditions on local freeways in the project area, the California Department of Transportation (Caltrans) also would have jurisdiction.

3.10.3 THRESHOLDS OF SIGNIFICANCE

The Los Angeles Department of Transportation (LADOT) has established threshold criteria, which are used to determine if a project will have a significant traffic impact. Using the LADOT standard, a proposed project may result in a significant impact on intersection capacity if the estimated project traffic would increase the volume to capacity (V/C) ratio on the intersection operating condition to one or more of the following:

- V/C ratio increase is equal to or greater than 0.04 if the final LOS (defined as projected future conditions including project, ambient, and related project growth but without project traffic mitigation) is C.
- V/C ratio increase is equal to or greater than 0.020 if final LOS is D
- V/C ratio increase is equal to or greater than 0.010 if final LOS is E or F.

Additional significance criteria that were considered for this project include:

- Exceed, either individually or cumulatively, a LOS standard established by the County CMP.
- Substantially increase safety hazards from existing or proposed design features or incompatible uses.
- Result in inadequate emergency access.
- Result in inadequate parking capacity.

3.10.4 ENVIRONMENTAL IMPACTS

3.10.4.1 Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. Exceed significance criteria established by the LADOT.

Construction Impacts: Construction is expected to require a maximum of six construction workers per day. Assuming the "worst case" of one person per vehicle per worker, a maximum of six vehicles per day would be generated. Due to the small increase in traffic volume, no change in the level of service at the local intersections is expected due to construction activities. The Level of Service at the intersections in the project area would remain the same as the

existing traffic conditions. The Level of service analysis indicates that intersections near ISOCI operate at Levels A to D during the a.m. peak hours. During the p.m. peak hour only one intersection operates below Level D, Downey Road at Washington Boulevard, which operates at Level E. So no significant impacts on traffic are expected during construction activities since no change in traffic conditions are expected.

The issuance of the Part B permit would result in modifications to the operation of the ISOCI facility. After completion of the proposed project, ISOCI plans to employ about 30 full time employees. The employee traffic was assumed to occur during peak hour traffic conditions. Currently, approximately 45 trucks visit the facility per day. This number of truck visits is expected to more than double (to 100 trucks per day) after completion of the proposed project. These truck trips occur throughout the day. A Level of Service analysis (Table 3.10-2) was conducted using the existing traffic conditions (see Table 3.10-1), plus the traffic generated by the ISOCI facility. The Level of Service analysis was based on the estimated traffic conditions in 2005 assuming a one percent annual growth rate.

TABLE 3.10-2

ISOCI LEVEL OF SERVICE ANALYSIS AND VOLUME-TO-CAPACITY (V/C) RATIOS

INTERSECTIONS	AM LOS	Peak Hr V/C	Project Change	PM LOS	Peak Hr V/C	Project Change
Soto Street at Washington Boulevard	D	0.851	+0.006	E	0.908	+0.001
Downey Road at Washington Boulevard	B	0.624	+0.003	E	0.928	+0.004
Washington Boulevard at I-710 Northbound Fwy Off-ramp	A	0.468	+0.004	A	0.483	+0.005
Washington Boulevard at I-710 Southbound Fwy Off-ramp	A	0.535	+0.003	A	0.561	+0.003
Soto Street at Olympic Boulevard	C	0.798	+0.002	D	0.840	+0.005
Lorena at Olympic Boulevard	A	0.569	+0.003	A	0.524	+0.000

As shown in Table 3.10-2, the potential increases in traffic are minor. The project will not increase the volume to capacity ratio at any intersection by more than 0.01. The project also will not change the projected level of service at any intersection in the general area. The intersection of Soto Street at Washington Boulevard was predicted to drop from LOS D to LOS E due to general population growth but the impact from the proposed project is less than one percent (0.1 percent). Therefore, the impacts of the facility are less than the significance criteria so that no significant impacts on traffic are expected.

The hazard impacts associated with truck traffic are discussed in Section 3.5 – Hazards and Hazardous Waste.

3.10.4.2 Exceed, either individually or cumulatively, an LOS standard established by the County Congestion Management Plan (CMP).

The CMP was created statewide as a result of Proposition 111 and has been implemented locally by the Metropolitan Transit Authority. The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system. A total of 164 intersections are identified for monitoring on the system in Los Angeles County.

The CMP "Traffic Impact Analysis Guidelines" require analysis of all surface street-monitoring locations where proposed projects adds 50 or more peak hour trips. Based on the list of surface street monitoring stations listed in the CMP, there are no stations within the study area. CMP also requires all freeway segments to be analyzed where the proposed project adds 150 or more trips during the peak hour (City of Los Angeles, 1998). No CMP freeway stations need to be analyzed because the proposed project will generate less than 50 peak hour trips. Therefore, potential project impacts on the County CMP would be less than significant.

3.10.4.3 Substantially increase safety hazards from existing or proposed design features or incompatible uses.

Existing access to the site is via Soto Street. No substantial safety hazards related to traffic currently exist at the site. The land uses in the area consist of industrial and commercial uses. Pedestrian traffic near the ISOCI facility is minimal. The proposed project will not change the access to the site or the existing traffic patterns. Therefore, no significant impacts related to traffic safety hazards are expected from the proposed project.

3.10.4.4 Result in inadequate emergency access.

Existing access to the site is via Soto Street. Emergency access to the site is currently provided per the City of Los Angeles requirements. New structures associated with the proposed project will be constructed within the confines of the existing facility. The existing traffic flow patterns on the site will be maintained. Therefore, the proposed project is not expected to result in inadequate emergency access to the site.

3.10.4.5 Result in inadequate parking capacity

Sufficient parking is provided for workers within the boundaries of the ISOCI facility. Parking for all permanent workers is provided on the site. ISOCI has sufficient parking spaces on-site to comply with city requirements for employees, visitors and contractors. Therefore, the impacts of the facility are less than the significance criteria so that no significant impacts on parking are expected.

3.10.5 MITIGATION MEASURES

No significant impacts on transportation and circulation were identified, therefore no mitigation measures are required.

3.10.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The project impacts on construction traffic are considered to be less than significant due to the low volume of traffic. The project will not change the level of service or increase the volume to capacity ratio at any intersection by more than 0.01. Therefore, no significant impacts on traffic are expected.

3.11 UTILITIES AND SERVICE SYSTEMS

3.11.1 ENVIRONMENTAL SETTING

3.11.1.1 Wastewater

ISOCI currently does not discharge any wastewater to the City sewer system because the facility is not hooked up to the sewer system.

3.11.1.2 Water

The ISOCI facility uses water principally for industrial purposes. The amount of water used at the ISOCI facility varies from about 7,500 to about 13,500 gallons per month. ISOCI purchases an average of about 10,500 gallons per month from the Los Angeles Department of Water and Power.

3.11.1.3 Non-Hazardous and Hazardous Wastes

Non-hazardous solid wastes are primarily generated in the ISOCI administrative office onsite. Los Angeles County landfills currently receive approximately 30,000 tons per day. The landfill designated for the "waste shed" in which the facility is located is Bradley West. The Puente Hills Facility would be an alternate site. The Bradley West facility is privately operated; Puente Hills Facility is owned by the Los Angeles County Sanitation Districts. The status of the landfills to which ISOCI may send municipal solid wastes is summarized in Table 3.11-1.

TABLE 3.11-1

Local Landfill Status

FACILITY NAME	PERMITTED (tons/day)	AVERAGE (tons/day)	REMAINING CAPACITY (tons)	Estimated Closure
Bradley West	10,000	2,250	1,130,000	4/13/07
Puente Hills	12,000	11,761	29,330,000	10/31/13

SOURCES: Los Angeles County Countywide Integrated Waste Management Plan, 2002 Annual Report – Part II, Siting Element Assessment, Los Angeles County Department of Public Works, February 2003; and www.ciwmb.ca.gov/SWIS.

The predictions represented in the Table 3.11-2 are subject to constant revision. The amount of waste generated has been reduced as a side effect of the economic recession. The Los Angeles County Sanitation District is currently exploring out of county disposal options in addition to continuing negotiations to extend current operating permits.

Hazardous waste is generated as a result of recycling waste liquids into product. These wastes are principally solid residues which are removed from hazardous waste liquids. The solid residues are shipped from the facility for land disposal or incineration. The quantity of screenings, filter cake, still bottoms and tank bottom residues varies depending on the type of wastes processed. ISOCI generates approximately 842 tons of solid hazardous wastes per year.

There are two hazardous waste (Class I) facilities in California, the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Safety-Kleen facility in Buttonwillow (Kern County). Kettleman Hills has an estimated nine million cubic yard capacity (four million currently, with an additional five million expected upon completion of a berm expansion). The facility expects to continue receiving wastes for approximately nine years under its current permit. The facility is in the process of permitting a new landfill that would extend the life of the operation another 15 years. (Personal Communication, Terry Yarbough, Chemical Waste Management Inc., June 2004). Buttonwillow receives approximately 960 tons of hazardous waste per day and has a remaining capacity of approximately nine million cubic yards. The expected life of the Buttonwillow Landfill is approximately 40 years [Personal Communication, Marianna Buoni, Safety-Kleen (Buttonwillow), Inc., June 2004].

Hazardous waste also can be transported to permitted facilities outside of California. The nearest out-of-state landfills are U.S. Ecology, Inc., located in Beatty, Nevada; USPCI, Inc., in Murray, Utah; and Envirosafe Services of Idaho, Inc., in Mountain Home, Idaho. Incineration is provided at the following out-of-state facilities: Aptus, located in Aragonite, Utah and Coffeyville, Kansas; Rollins Environmental Services, Inc., located in Deer Park, Texas and Baton Rouge, Louisiana; Chemical Waste Management, Inc., in Port Arthur, Texas; and Waste Research & Reclamation Co., Eau Claire, Wisconsin.

TABLE 3.11-2

Los Angeles County Landfill Status

LOS ANGELES COUNTY	Average tons per day	Permitted tons per day	Remaining permitted capacity (million tons)	Estimated closure date
CLASS III LANDFILLS				
Antelope Valley #1	847	1,800	9.160	01/01/2008
Bradley	2,250	10,000	1.130	01/01/2007
Burbank (Burbank use only)*	128	240	3.500	01/01/2053
Calabassas (Calabasas Watershed use only)	1,166	3,500	11.000	01/01/2028
Chiquita Canyon	4,779	6,000	17.230	11/24/2019
Lancaster	871	1,700	13.850	08/02/2012
Pebbly Beach (Avalon)**	14	49	0.100	01/01/2033
Puente Hills #6	11,830	13,200	3.120	10/31/2013
San Clemente Island***	2	10	0.013	01/01/2032
Scholl Canyon (Scholl Canyon Watershed use only)	1,194	3,400	8.200	01/01/2019
Sunshine Canyon	5,714	6,600	8.100	01/01/2011
Savage Canyon – Whittier	269	350	4.850	01/01/2025
Totals	**29,064**	**46,849**	**80.253**	

Source: Los Angeles County Coutywide Integrated Waste Management Plan, 2002 Annual Report – Part II: Siting Element, LA County Dept. of Public Works, February 2003, and www.ciwmb.ca.gov/SWIS.

*Operational 5 days/wk

**Operational 7 days/wk

***Operational 3 days/wk

About 937,172 tons of hazardous waste was generated in Los Angeles County in 2004 (see Table 3.11-3). The most common types of hazardous waste generated in the County include waste oil, contaminated soils, other inorganic solid waste, asbestos-containing waste, organic solids, and unspecified solvent mixtures. Not all wastes are disposed of in a hazardous waste facility. Many of the wastes generated, including waste oil, are recycled.

TABLE 3.11-3

Hazardous Waste Generation in Los Angeles County (2003 – 2004)
(tons per year)

County	Waste Oil and Mixed Oil	Contaminated Soils	Other Inorganic Solid Waste	Asbestos-Containing Waste	Organic Solids	Unspecified Solvent Mixture	Aqueous Solution with Organic Residues	Unspecified Aqueous Solution	Polychlorinated Biphenyls	Unspecified Oil Containing Waste	Oil/Water Separation Sludge	Total Waste Generated in County
Los Angeles-2003	281,531	138,981	125,363	89,977	70,529	26,847	22,524	21,999	16,795	15,782		937,172
Los Angeles-2004	286,038	218,707	125,896	54,166	55,294	29,732	26,154	21,796		20,9223	24,951	971,327

Source: DTSC, 2004

Used oil is subtracted out of the total for several reasons, mainly because with the consolidated manifest there is no way to track used oil shipments from the actual generator to the final Treatment, Storage, and Disposal Facility (TSDF) where it is treated. Shipments that go through transfer facilities are counted when they are transported to the transfer facility on a manifest and again when they are shipped out on another manifest, effectively double counting. This double counting skews the data in DTSC's HWTS. The amount of used oil treated by California facilities has generally increased from 1993 to present.

In reviewing the total tons received by each of the hazardous waste landfills in California, the tonnage has increased at Chemical Waste Management from slightly over 200,000 tons to almost 675,000 in 2001 before dropping in 2002. Tonnages at the Clean Harbors facilities (formerly Safety Kleen) have remained flat, except for year 2002 at the Buttonwillow facility. This information has been highlighted since hazardous waste sent to land disposal is subject to disposal fees.

3.11.2 REGULATORY BACKGROUND

3.11.2.1 Water Supply

The California Urban Water Management Planning Act requires every municipal water supplier that serves more than 3,000 customers or provides more than 3,000 acre-feet of water per year, to prepare and adopt an Urban Water Management Plan (UWMP). UWMPs are required to include estimates of past, current, and projected potable and recycled water use, identify conservation and reclamation measures, and provide an urban water shortage contingency plan.

The requirements for a UWMP were amended by Senate Bill (SB) 610 (Costa) and signed into law by Governor Gray Davis in October 2001. Under SB 610, an urban water supplier responsible for the preparation and periodic updating of a UWMP (i.e., LADWP Urban Water Management Plan) must describe the water supply projects and programs that may be undertaken to meet the total project water use of the service area. If groundwater is identified as a source of water available to the supplier, SB610 requires additional information to be included in the UWMP such as: 1) a groundwater management plan; 2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; 3) a description and analysis of groundwater use in the past five years: and 4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier. Similarly, Assembly Bill (AB) 901, which was also signed into law by Governor Davis in October 2001, requires UWMPs to contain information specifically pertaining to the quality of water supply sources.

In addition to requirements related to UWMPs, SB 610 recognizes the need to link water supply and land use planning as currently required by Section 10910 of the Water Code. Under certain circumstances, a city or county is required to request, in conjunction with a development project, a water supply assessment containing specific information from the water service provider. Under SB 610, it is the responsibility of the water service provider to prepare a water supply assessment requested by a city or county for any "project" defined by Section 10912 of the Water Code that is subject to CEQA. If the provider determines that water supplies are, or will be, insufficient, plans must be submitted for acquiring additional water supplies.

As previously indicated, the DWP is the local agency responsible for acquiring and distributing water within the City of Los Angeles and is charged with ensuring that state and federal water quality standards and planning requirements are being complied with. Water plans are documented periodically in the DWP's UWMP. This document accounts for the projected demand that exceeds MWD's contribution and plans for supplies from the Los Angeles Aqueduct, local groundwater, conservation, and reclamation. The development and use of reclaimed water resources is central to DWP's plan for meeting growing water demands through the year 2020, and is examined in detail as part of the DWP's Integrated Plan for the Wastewater Program (IPWP), which is currently underway. One of the purposes of the IPWP is to develop a plan to ensure that the City meets its goals for reclaimed water use. In addition, DWP implements water conservation measures wherever possible. The City is currently implementing Best Management Practices for water conservation, such as ordinances, incentives, and water-efficient fixture installation and retrofitting. The City also has conservation education and infrastructure replacement programs, a Technical Assistance Program that provides financial incentives for commercial/industrial conservation retrofitting, and a water rate structure that rewards conservation and penalizes wasteful water use.

A number of State regulations address water use and efficiency in order to reduce demand. Title 24 of the California Administrative Code contains the California Building Standards, including the California Plumbing Code (Part 5), which promotes water conservation. Title 20 addresses Public Utilities and Energy and includes energy efficiency standards for appliances. A number of other state laws require water-efficient plumbing fixtures in structures and efficient landscaping, such as the Health and Safety Code (§17921.3 and §116785) and Government Code

(§65591, et seq.). The proposed project would be subject to all applicable requirements within these State Codes.

Working Within Public Right-of-Way

All proposed water facility modifications, rearrangements, relocations, system improvements, new installations, and abandonment within the public rights-of-way are subject to DWP approval. In addition, all work within the public rights-of-way, such as water main and service installations, and sidewalk and roadway improvements, are subject to approval by the Los Angeles Department of Public Works, in accordance with the provisions of the Los Angeles Municipal Code.

3.11.2.2 Sewage/Wastewater Infrastructure

The existing wastewater facilities serving the City of Los Angeles include contractual rights with local cities and jurisdictions to discharge specific quantities of wastewater into the system. These jurisdictions include Beverly Hills, Burbank, Culver City, El Segundo, Glendale, San Fernando, Santa Monica, and Universal City. Additionally, County Sanitation Districts 4, 5, 11, and 16 have discharge rights. These contracts limit the amount of wastewater that can be discharged into the City of Los Angeles system.

Regional Water Quality Control Board

Regulatory and permitting processes have been established to control the water quality of runoff from urban construction sites. In 1987, the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from storm water is effectively prohibited, unless the discharge is on compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. The 1987 amendments to the CWA added Section 402(p), which established a framework for regulating municipal, industrial and construction storm water discharges under the NPDES program. In California, these permits are issued through the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The project site is within the jurisdiction of the Los Angeles RWQCB. The SWRCB has adopted a statewide general construction permit that applies to most construction projects. This permit allows storm water discharge under certain conditions during the construction period but is intended to minimize the pollution of downstream receiving waters from construction activities.

City of Los Angeles Ordinance No. 166,060 (Sewer Allocation)

In order to address existing limitations in available treatment capacity, the City of Los Angeles has established ordinances limiting new connections to sewers. The Sewer Permit Allocation Ordinance No. 166,060 stipulates that building permits will not be issued unless wastewater treatment capacity is available. This ordinance specifically limits the annual increase in wastewater flows discharges into the Hyperion Treatment Plant system to 5 million gallons per day. Special Order No. SIO06-0691 changed the design peak dry weather flow for sanitary sewers from three-quarter depth of a pipe's diameter to one-half depth in order to implement the

City-adopted goal of no overflows or diversions from the wastewater collection system. The City's Bureau of Engineering implements the ordinance.

3.11.2.3 Solid Waste Disposal and Landfills

Integrated Waste Management Act of 1989 (Public Resources Code 40050 et seq.) or AB 939

Pursuant to the California Integrated Waste Management Act of 1989, the City of Los Angeles was required to reduce the amount of solid waste disposed of in landfills by 25 percent by 1995 and 50 percent by the year 2000 through the implementation of waste reduction, reuse and recycling programs. The Act also requires that all cities conduct a Solid Waste Generation Study (SWGS) and prepare a Source Reduction Recycling Element (SRRE).

County of Los Angeles Source Reduction and Recycling Element

The County of Los Angeles SRRE was developed in 1993 in response to AB 939 and addresses solid waste resources in unincorporated portions of the County.

County of Los Angeles Countywide Integrated Waste Management Plan

The County of Los Angeles, Department of Public Works, developed the Countywide Integrated Waste Management Plan (CIWMP) in 1996 to provide guidance to local agencies throughout the County to achieve the waste diversion mandates of AB 939. An integrated approach to solid waste management, the CIWMP incorporates reduction, recycling, and composting, along with public education awareness programs.

City of Los Angeles Annual Report on Diversion and Disposal

The Annual Report on Diversion and Disposal in the City of Los Angeles (Annual Report) is the City of Los Angeles' SRRE. Adopted in 1990 and updated in 1995, it established solid waste reduction, reuse, and recycling policies and programs throughout the City. The Annual Report uses a generation-based methodology mandated by diersion to calculate its diversion rate rather than the disposal-base methodology mandated by AB 2494, and update to AB 939.

Solid Resources Management Specifications

The Solid Resources Management Specifications (SRM) were developed by the City of Los Angeles in response to AB 939. The SRM are contractor guidelines and requirements for reuse, salvage, and recycling of construction, demolition, and land clearing materials. Any contractor(s) retained for development of the proposed project would be subject to applicable requirements.

3.11.3 THRESHOLDS OF SIGNIFICANCE

Impacts to public utilities will be considered significant if:

- The project exceeds the applicable wastewater treatment requirements of the RWQCB.
- Wastewater generated by the project exceeds the capacity of existing or planned wastewater conveyance or treatment systems serving the project site, resulting in the need for additional facilities in order to provide adequate levels of service.
- The demand generated by the project exceeds the ability of the DWP to service the site based on anticipated water supplies, or project-related water demand exceeds the capacity of existing or planned water distribution systems, resulting in a need for additional infrastructure in order to provide adequate levels of service.
- The project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and/or the implementation of the proposed project would generate a substantial amount of solid waste that exceeds the available capacity of the service provider and landfill to handle and dispose of that waste.
- The project does not comply with federal, state, and local statues and regulations related to solid waste.

3.11.4 ENVIRONMENTAL IMPACTS

3.11.4.1 Wastewater

The project exceeds the wastewater treatment requirements of the RWQCB or planned wastewater conveyance or treatment systems serving the project, resulting in the need for additional facilities in order to provide adequate levels of service.

The proposed project's impacts on wastewater demand are expected to be less than significant. See Section 3.6.1.4.1 for further discussion on the proposed project's impacts on wastewater.

3.11.4.2 Water Demand

The demand generated by the project exceeds the ability of the DWP to service the site based on anticipated water supplies, or project-related water demand exceeds the capacity of existing or planned water distribution systems, resulting in a need for additional infrastructure in order to provide adequate levels of service

The proposed project's impacts on water demand are expected to be less than significant. See Section 3.6.1.4.2 for further discussion on the proposed project's impacts on water demand.

3.11.4.3 Landfills

The project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and/or the implementation of the proposed project would generate a substantial amount of solid waste that exceeds the available capacity of the service provider and landfill to handle and dispose of that waste.

Los Angeles County landfills currently receive approximately 30,000 tons per day. The landfills designated for the "waste shed" in which the facility is located are Bradley West and Puente Hills. The Bradley West facilities is privately operated; Puente Hills Facility is owned by the Los Angeles County Sanitation Districts. The status of the landfills to which ISOCI may send municipal solid wastes is summarized in Table 3.11-1. Non-hazardous solid wastes are generated in the ISOCI administrative office onsite. No changes are expected to the administrative operations at ISOCI, therefore, no significant increase in the generation of non-hazardous solid wastes is expected.

Hazardous waste is generated as a result of recycling waste liquids into product. These wastes are principally solid residues, which are removed from hazardous waste liquids. The solid residues are shipped from the facility for land disposal or incineration. The quantity of screenings, filter cake, still bottoms and tank bottom residues varies depending on the type of wastes processed. ISOCI is expected to continue to generate approximately 850 tons of solid hazardous wastes per year. The stabilization system is designed to solidify these residues to allow most of them to be landfilled, although some chlorinated still bottoms will require incineration at off-site facilities. Sufficient capacity is available at the hazardous waste landfills to continue to handle these wastes. Further, ISOCI provides waste treatment services by recycling used oil into a reusable product, thus, providing an environmental benefit by helping to assure the proper handling of these waste streams.

3.11.4.4 Solid Waste

The project does not comply with federal, state and local statures related to solid waste.

As discussed in Section 3.11.1.4.3, no changes are expected to the administrative operations at ISOCI, therefore, no significant increase in the generation of non-hazardous solid wastes is expected.

3.11.5 MITIGATION MEASURES

The issuance of the Part B permit to ISOCI will allow the facility to continue to operate. The impacts of the continued operation of the ISOCI facility on utilities and service systems are considered to be less than significant. Therefore, no mitigation measures are required.

3.11.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impacts of the continued operation of the ISOCI facility on utilities and service systems are considered to be less than significant.

3.12 OTHER CEQA TOPICS

3.12.1 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA defines growth-inducing impacts as those impacts of a proposed project that "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth" (CEQA Guidelines §15126.2(d)).

The proposed project is not expected to foster population growth in the area, nor will additional housing or infrastructure be required. The project involves the modification of existing industrial facilities. No new services will be required; therefore, no infrastructure development or improvement will be required, and no population growth will be encouraged as a result of the project. It is expected that construction workers necessary to build new, or modify existing equipment can be drawn from the existing workforce pool in southern California, Issuance of the Part B permit is projected to result in 12 additional employees at the ISOCI facility, which are also expected to come from the existing labor pool in southern California. Operation of the proposed project is not expected to require any additional refinery workers.

The proposed project will allow the ISOCI facility to continue to operate as an oil recycling facility and expand the quantity and types of waste streams that can be received and treated. The increase in treatment capacity is not expected to result in growth-inducing impacts but rather to keep up with the existing need for hazardous waste treatment in southern California. Allowing the ISOCI facility to continue to operate minimizes the need to transport these wastes to other facilities. No growth-inducing impacts are expected from the proposed project.

3.12.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES AND ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

CEQA requires an EIR to discuss significant environmental effects (CEQA Guidelines §15126.2(b)) and irreversible environmental changes (CEQA Guidelines §15126.2(c)), which would result from a proposed project, should it be implemented. Significant environmental impacts are impacts that would exceed established threshold levels (e.g., air emissions would exceed SCAQMD established threshold levels). Irreversible changes include a large commitment of nonrenewable resources, committing future generations to specific uses of the environment (e.g., converting open spaces into urban development), or enduring environmental damage due to an accident.

It was determined that implementation of the proposed project would result in potentially significant impacts on air quality (see page 3-28). However, continued operation of the ISOCI

facility will provide treatment options for certain specified hazardous waste near the sources of generation, provide services and facilities for treating and recycling consumer products including motor oil and antifreeze into marketable products, minimize truck transportation distances for the treatment of hazardous waste, and provide adequate capacity for the safe, efficient treatment of specified hazardous waste within the greater Los Angeles area. Therefore, the continued operation of the ISOCI facility is expected to have long-term environmental benefits on hazardous waste treatment.

The proposed project involves modifications to an existing hazardous waste treatment facility, located within an industrial area, which has been operating since the 1970's. Therefore, there is no major commitment of nonrenewable resources or changes that would commit future generations to specific uses of the environment.

3.12.3 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

The environment effects of the proposed project are identified and discussed in detail in the preceding portions of Chapter 3 of this EIR and in the Initial Study (see Appendix A) per the requirements of the CEQA Guidelines (§15128). The following topics of analysis in this EIR were found to have no potentially significant adverse effects:

- Aesthetics
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Noise
- Public Services
- Transportation and Traffic
- Utilities/Services Systems

The following topics of analysis were found to have no potentially significant adverse effects in the Initial Study (see Appendix A):

- Agriculture Resources
- Biological Resources
- Cultural Resources

- Mineral Resources
- Population/Housing
- Recreation