DRAFT
ENVIRONMENTAL IMPACT REPORT FOR THE HAZARDOUS WASTE MANAGEMENT OPERATION AND POST CLOSURE PERMIT FOR QUEMETCO, INC.

State Clearinghouse Number: 1996041042

Prepared for:

LEAD AGENCY
California Environmental Protection Agency
Department of Toxic Substances Control
1101 N. Grandview Avenue
Glendale, California 91201

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June 2001

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SECTION 1.0 - EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Executive Summary has been prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines §15123(b), which states that an EIR should contain a brief summary of the proposed actions and its consequences, and should identify:

(1) Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect;
(2) Areas of controversy known to the lead agency including issues raised by the agencies and the public; and
(3) Issues to be resolved including the choice among alternatives and how to mitigate the significant effects."

This Focused Draft Environmental Impact Report (DEIR) provides an analysis of the environmental impacts associated with the Department of Toxic Substances Control (DTSC) granting an Operating and Post-Closure Permit for the Quemetco, Inc. Hazardous Waste Management Facility in the City of Industry. This DEIR is intended to provide information to the DTSC, other public agencies, and the general public regarding the potential environmental impacts of the proposed action.

1.2 PROJECT SETTING

The Quemetco, Inc., facility is situated in the central portion of the San Gabriel Valley in Los Angeles County, California. The facility site consists of about 15 acres located at 720 South Seventh Avenue in the City of Industry, California. The property is owned by Quemetco West LLC and operated by Quemetco Inc., a Delaware Corporation.

The project site is accessible from major public streets, including Seventh Avenue and Salt Lake Avenue. In addition, the site is accessible from several freeway systems including the Pomona Freeway (SR 60) approximately 1/2 mile south, the San Bernardino Freeway (I-10) approximately 3 miles north, and the San Gabriel River Freeway (I-605) approximately 3.5 miles west.

The project site is located in an area consisting predominantly of commercial and light industrial uses with manufacturing operations surrounding the project site on the east, north, and west. The northern boundary of the project site is San Jose Creek, a concrete-lined channel that flows east to west. While located in the City of Industry, the site is less than 1/4 mile north of the boundary with the Hacienda Heights, an unincorporated community of the County of Los Angeles. The boundary with the unincorporated community of Avocado Heights is located approximately 1/2 mile west of the site, and the City of La Puente boundary is located less than 1-mile north of the site. Additional information about the jurisdictions in the vicinity of the project site is contained in this DEIR in the section on Land Use (Section 3.1).

1.3 PROPOSED PROJECT

The DTSC is currently considering Quemetco's Part B permit application (under the California Code of Regulations Title 22, Section 66270, Article 2) in accordance with the federal Resource Conservation and Recovery Act (RCRA) and a post-closure permit for a previously closed surface impoundment. The permit request is for the continuance of current operations that involve the treatment, storage, and transfer of hazardous and nonhazardous wastes related to the recycling of used and flawed automotive batteries and other recyclable lead materials. The Part B permit would also include a closure plan as required by RCRA. Current state law requires preparation of an EIR for the project (California Public Resources Code Section 21151.5). DTSC has been designated as the Lead Agency for the preparation of the EIR.

1.4 PROJECT OBJECTIVES

The objectives for the continued operation of the Quemetco, Inc., facilities in accordance with state and federal regulations are as follows:

- Continue the treatment and storage of hazardous wastes to allow continued recovery of lead from batteries and other materials.
- Modify manufacturing processes to increase operational efficiency.
- Allow for phased implementation of remedial measures consistent with maintenance of health and safety of workers and the general public.

1.5 SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This DEIR is a Focused EIR and discusses those topic areas determined to have potentially significant environmental impacts as identified in the Initial Study and Notice of Preparation (NOP) for the Project and during public scoping meetings. The Initial Study, NOP, and summaries of the scoping meetings are located in Appendix A of this DEIR.

Topic areas found to have potentially significant environmental impacts during the Initial Study, NOP, and scoping process, and discussed in this DEIR, are as follows: Land Use; Earth Resources; Water Resources and Water Quality; Air Quality; Noise; Risk of Upset; Human Health and Safety; Public Services; and Traffic and Transportation. The significant environmental impacts, mitigation measures and residual impacts for each environmental resource area are presented in Table 1.5-1 at the end of this section and are discussed in detail in Section 3.0.

Table 1.5-1
Impact and Mitigation Summary Table

Environmental Impacts	Mitigation Measures	Residual Impacts
Land Use: No significant adverse land use impacts were identified.	No mitigation measures are required.	None.
Earth Resources: No significant impacts to earth resources were identified.	No mitigation measures are required.	None.
Water Resources/Water Quality: Non-compliance with established water quality standards for groundwater resulting from continued operations at the Quemetco Facility is considered a significant impact.	The Quemetco facility is regulated by the EPA/DTSC, LACSD and SWRCB. These agencies require corrective action and continued monitoring of water quality that is ongoing on the project site. No mitigation beyond that already required and implemented is available.	Impacts remain significant and unavoidable.

Environmental Impacts	Mitigation Measures	Residual Impacts
Air Quality: No significant impacts to air quality were identified.	No mitigation measures are required.	None.
Noise: No significant noise impacts were identified.	No mitigation measures are required.	None.
Risk of Upset: No significant impacts were identified.	No mitigation measures are required.	None.
Human Health and Safety: No significant health and safety impacts were identified.	No mitigation measures are required.	None.
Public Services: No significant impacts to public services were identified.	No mitigation measures are required.	None.
Traffic and Transportation: No significant traffic or transportation impacts were identified.	No mitigation measures are required.	None.

1.6 AREAS OF CONTROVERSY

In early scoping meetings, the public voiced issues of concern with regards to lead toxicity. Individuals during the scoping period referenced independent studies done in the general area that indicated elevated levels in areas in the City of Industry. The Human Health Risk Assessment prepared for the Quemetco facility found no risks that exceed accepted threshold levels.

1.7 ALTERNATIVES TO THE PROPOSED PROJECT

Section 5.0 of the EIR analyzes alternatives to the Proposed Project in detail, in accordance with CEQA section 15126.6(a). Three alternatives to the Proposed Project were analyzed.

1. **No Project Alternative -** The No Project Alternative usually involves a no development, or no change from current conditions scenario. Because the Proposed Project involves permitting of an existing facility and its operations, this type of no project scenario is not applicable. The No Project Alternative for this analysis consists of the denial of the RCRA Part B Permit by DTSC. Denial of the permit would result in closure of the facility, and the need to transfer the battery recycling operations to other facilities. This transfer of Quemetco operations to other facilities is the only option, as protection of the environment from pollution by lead acid batteries is covered in the Health and Safety Code Section 25215.2 which prohibits the disposal or attempted disposal of lead acid batteries at solid waste facilities, or on any lands, surface waters, watercourses, or marine waters.

   Given this analysis, the No Project Alternative would result in increased impacts associated with long distance transport, the uncertainly and potential for impacts at other facilities due to the stockpiling of batteries, and the economic implications that could induce illegal dumping posing additional hazards to the local environment. Thus the No Project Alternative has the potential to be more impacting than the proposed project.

2. **Onsite Alternative -** Selection of an onsite alternative under CEQA commonly includes one or more alternatives located on the project site, which varies from the Proposed Project in scale or design. In this case, the Proposed Project is already constructed and has been operating for a number of years, thus an onsite redesign or reorientation is not rationale, and serves no purpose. The proposed project involves approval of an operating permit for the Quemetco facility that will allow the facility to operate within the confines of the capacities defined in the permit application. If a reduced operation were to be considered, a revised application or limitations on operations would need to be placed into the permit conditions. Since this DEIR analysis did not identify any unmitigated residual significant

impacts, there would be little benefit from changes to environmental conditions from any reduction in capacity of the facility. As above, the placement of limitations on operations would require that the remaining operations be transferred to other facilities to comply with Health and Safety Code 25215.2. Since consideration of the transfer of operations to other facilities is addressed in the No Project Alternative, consideration of this alternative is not carried out in further detail.

3. **Offsite Alternative** - The analysis of offsite alternatives to the Proposed Project under CEQA typically involves consideration of the feasibility of locating the Proposed Project at one or more alternative locations, where the potential significant affects would be reduced or avoided. This is typically addressed for new development projects and relocating the Quemetco facility is infeasible and was rejected as an alternative as discussed further. Under CEQA, only feasible offsite alternatives capable of reducing or avoiding the significant environmental impacts of the Proposed Project need to be analyzed. Thus, a complete relocation of the proposed project to an alternative site is not considered a feasible alternative since the economic implications of such an action could not be justified against the avoidance of environmental impacts. That is, the Lead Agency must consider in their Statement of Findings and Overriding Considerations as part of the CEQA process, the balance of the environmental impacts of a project against the economic, technical and social implications of a project. Because this project is the continuation of existing conditions, and not a new facility, justification of relocation of the facility is infeasible, and was rejected from further consideration.

   In the case of the Proposed Project, offsite alternatives are addressed in the event that permit denial would result in the need that battery recycling be continued and absorbed among other existing facilities and would thus be a ramification of the No Project Alternative.

1.8 ISSUES TO BE RESOLVED

There are no outstanding issues to be resolved with regard to the environmental analyses contained within this DEIR.

SECTION 2.0 - PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The Quemetco, Inc., facility is situated in the central portion of the San Gabriel Valley in Los Angeles County, California (Figure 2-1). The facility site consists of about 15 acres located at 720 South Seventh Avenue in the City of Industry, California (Figure 2-2). The property is owned by Quemetco West LLC and operated by Quemetco Inc., a Delaware Corporation.

The project site is accessible from major public streets, including Seventh Avenue and Salt Lake Avenue. In addition, the site is accessible from several freeway systems including the Pomona Freeway (SR 60) approximately 1/2 mile south, the San Bernardino Freeway (I-10) approximately 3 miles north, and the San Gabriel River Freeway (I-605) approximately 3.5 miles west.

The project site is located in an area consisting predominantly of commercial and light industrial uses with manufacturing operations surrounding the project site on the east, north, and west. The northern boundary of the project site is San Jose Creek, a concrete-lined channel that flows east to west. While located in the City of Industry, the site is less than 1/4 mile north of the boundary with the Hacienda Heights, an unincorporated community of the County of Los Angeles. The boundary with the unincorporated community of Avocado Heights is located approximately 1/2 mile west of the site, and the City of La Puente boundary is located less than 1-mile north of the site. Additional information about the jurisdictions in the vicinity of the project site is contained in this EIR in the section on Land Use (Section 3.1).

2.2 FACILITY HISTORY

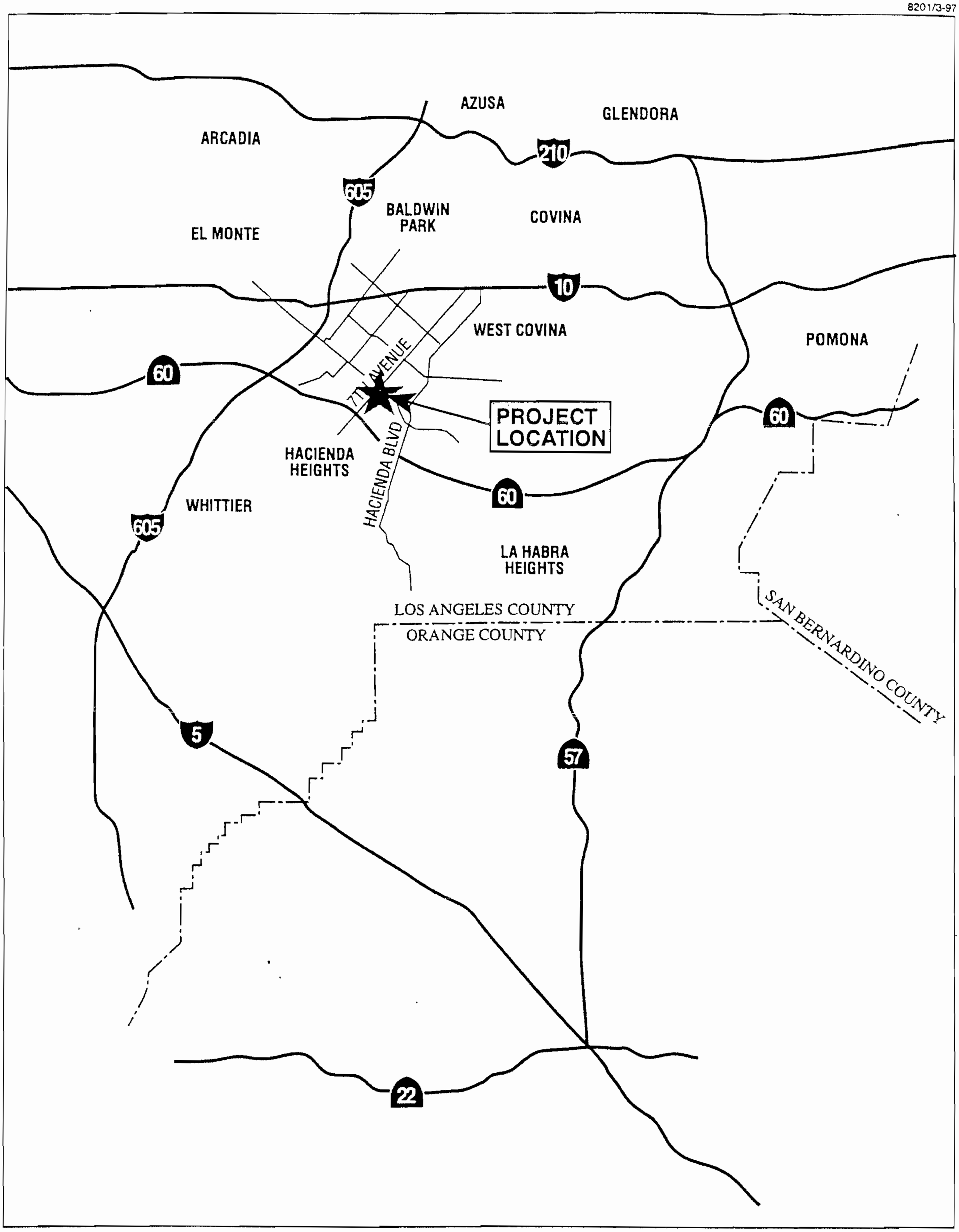
Quemetco, Inc. (Applicant) operates the facility, which is an existing secondary lead smelting facility for the purpose of recycling lead. The facility recovers and reprocesses lead from used automotive batteries and other sources. Approximately 10 million batteries are recycled annually, returning approximately 120,000 tons of lead to industry for new products. Approximately 95 percent of the lead refined at the facility is derived from used automobile batteries, whereas the remaining 5 percent comes from other batteries and scrap lead.

Use of the site for recycling of batteries and lead containing materials was established by Western Lead Products in 1959. Quemetco, Inc., is the second owner of the facility, acquiring the operation from the previous owner in 1970.

When California's hazardous waste management program was created in the late 1970s, all hazardous waste management facilities in the state were directed to participate in a two-phased permit program under the Resource Conservation and Recovery Act (RCRA). The program required each applicable company to file for a temporary operating permit (Part A permit) until DTSC could do a more thorough review of each company and its operations. Upon completion of this review, DTSC may issue a Part B permit, contingent upon preparation and implementation of a plan to clean up any waste contamination and operate in a manner required by federal and state law.

Quemetco submitted the first part of its permit application (the Part A application) on November 19, 1980, and was issued a temporary operating permit, known as an Interim Status Document (ISD), on May 16, 1983. During the time between the ISD and the present Part B Application, there have been several additional investigations and inspections of the property, and several corrective actions required by DTSC. A summary of the corrective actions to date is as follows:

- A RCRA Facility Assessment (RFA) was conducted in September 1987 to determine what, if any, contamination exists at the facility. The RFA identified some 40 areas on the property that were contaminated, including a former surface impoundment (pond) used to store site runoff and the former raw materials storage area.



REGIONAL LOCATION MAP
Figure 2-1

N

Not to Scale

Feet

0 2000

N

Base Map Source: USGS 1:24,000
Baldwin Park, CA

PROJECT VICINITY MAP
Figure 2-2

- In 1993, Quemetco and DTSC approved a closure plan for the onsite pond that had been out of use since 1986, when it was replaced by a tank system. Remedial activities associated with the closure plan have been completed.

- In 1995, Quemetco completed closure of the former raw materials storage area in accordance with a Consent Decree issued by the U.S. District Court and an approved Interim Remedial Measure Report.

- The RFA documented the solid waste management units onsite and Quemetco was directed to prepare a RCRA Facility Investigation (RFI) that serves as the plan for further characterization of the nature and extent of contamination onsite. The RFI is used to prepare specific Corrective Measures Studies (CMS) which are subject to public input prior to approval by DTSC. Corrective measures are incorporated into the permit conditions and may continue to occur subsequent to the Part B application process.

In April 1994, Quemetco submitted the more extensive Part B permit application to DTSC. This part of the application involves preparation of a detailed operations plan, which includes both health and safety procedures, chemical analysis of wastes handled onsite, financial liability, worker training procedures, emergency response procedures, and other important aspects regarding operations.

DTSC has completed its review of the Part B application materials and accepted the application as complete in April 2001. Prior to making a decision on the Part B permit, DTSC must also consider this EIR and a separate Human Health Risk Assessment (HHRA). The HHRA was completed in late 2000 (Kleinfelder 2000). The Part B application and HHRA are available on file at DTSC, Quemetco, and the Hacienda Heights Public Library.

2.3 PROJECT OBJECTIVES

2.3.1 Need for the Proposed Project

The DTSC is currently considering Quemetco's Part B permit application (under the California Code of Regulations Title 22, Section 66270, Article 2) in accordance with the federal Resource Conservation and Recovery Act. The permit request is for the continuance of current operations that involve the treatment, storage, and transfer of hazardous and nonhazardous wastes related to the recycling of used and flawed automotive batteries and other recyclable lead materials. Current state law requires preparation of an EIR for the project (California Public Resources Code Section 21151.5). DTSC has been designated as the Lead Agency for the preparation of the EIR.

2.3.2 Objectives Sought for the Proposed Project

California Code of Regulations (CCR) Title 14, Section 15124 specifies that a "statement of the objectives sought by the proposed project" be provided as part of the project description in an EIR. The objectives for the continued operation of the Quemetco, Inc., facilities in accordance with state and federal regulations are as follows:

- Continue the treatment and storage of hazardous wastes to allow continued recovery of lead from batteries and other materials.

- Modify manufacturing processes to increase operational efficiency.

- Allow for phased implementation of remedial measures consistent with maintenance of health and safety of workers and the general public.

2.4 REGULATORY FRAMEWORK FOR HAZARDOUS MATERIALS

Hazardous materials include both hazardous waste and hazardous substances. In general, a substance or waste is classified as "hazardous" if it is specifically listed as hazardous in Title 22 of the CCR, if it is a mixture containing one or more listed wastes or substances, or if it is reactive, ignitable, corrosive, or toxic. Hazardous waste is a solid, liquid, or gas that is a by-product of a process, is no longer of use, or is a hazardous substance that has been spilled, leaked, or is no longer useable. A hazardous waste is thus distinguished from a hazardous substance, which is a raw material for a product or a process. Because of their potential danger to public health and the environment, hazardous materials are closely regulated by federal and state laws which focus on controlling the production, handling, storage, transportation, and disposal of hazardous materials. Key federal and state regulations governing hazardous materials are described below. Section 2.5 provides a brief description of federal, state, and local agencies that implement hazardous materials regulations pursuant to the framework described in this section.

2.4.1 <u>Federal Statutes and Regulations</u>

Resource Conservation and Recovery Act

The federal Resource Conservation and Recovery Act of 1976 (42 United States Code (USC) §6901 *et seq.*), amended in 1980 and 1984, is the principal federal legislation governing hazardous waste. Administered by the U.S. Environmental Protection Agency (EPA), RCRA imposes reporting, permitting, and operational control on entities that generate, treat, store, or dispose of hazardous materials or hazardous waste. RCRA is implemented by Title 40, Code of Federal Regulations (CFR), Parts 260-271.

Pursuant to RCRA, any person or entity who owns or operates a facility where hazardous waste is treated, stored, or disposed of, shall have a permit. Specifically, a hazardous waste facility is considered a treatment/storage (T/S) facility subject to RCRA regulation if it treats any of the established RCRA wastes or stores such wastes for over 90 days. Many state governments, such as California, are authorized by the EPA to administer state hazardous waste management programs in lieu of the federal RCRA program. In the case of the proposed project, the applicant (Quemetco) must comply with specific permit application requirements of DTSC.

Under RCRA, a facility in existence before 1980 was granted "interim status" provided that it met certain requirements, such as the filing of a Part A permit application (described below) and the obtaining an EPA identification number. The operator of an interim-status facility was required to file a RCRA permit application, which consists of Part A and Part B. Part A typically includes such items as the facility name and location, land type, facility contacts, operator information, Standard Industrial Classification codes, existing environmental permits, nature of business, design and treatment processes, and a description of the hazardous waste that will be treated, stored, or disposed of at the facility. Part B of a RCRA application typically contains more detailed, site-specific information regarding the facility description, design, structure; geologic and hydrologic information about the facility vicinity; equipment operation; management practices; employee training; safety precautions; and emergency response/corrective action plans.

Comprehensive Environmental Response, Compensation, and Liability Act

The federal Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) of 1980 (42 USC 9601 et seq., also known as Superfund), and subsequent revisions were established to protect people and the environment in the event of a hazardous materials release. CERCLA authorizes allocation of funds for locating and assessing potentially hazardous sites, conducting immediate cleanup actions necessary for protection of public health, and performing long-term cleanup and monitoring of contaminated sites.

Federal Water Pollution Control Act and Clean Water Act

The federal Water Pollution Control Act (1972), as amended by the Clean Water Act (CWA 1977), enforced by the EPA and referred to collectively as the CWA, regulates direct discharges into "navigable waters." The National Pollutant Discharge Elimination System (NPDES) permits are issued for the discharge of treated sewage by publicly-owned treatment works (POTW). Pursuant to the CWA, the EPA has established national pretreatment standards which industrial users, such as Quemetco, must meet before discharging to a POTW. The CWA requires all POTWs with a design flow of over 5 million gallons per day (MGD) to establish pretreatment requirements to control industrial discharges of hazardous wastes into their sewer systems.

2.4.2 <u>State Statutes and Regulations</u>

Hazardous Waste Control Law

The state Hazardous Waste Control Law (Health and Safety Code [H&SC], Division 20, Chapter 6.5), established in 1972, is the principal statute governing hazardous waste in California. Administered by DTSC, this law imposes reporting, permitting, and operating requirements on entities that generate, treat, store, or dispose of hazardous waste in California. Implementing regulations are contained in the California Code of Regulations, Title 22 (Title 22, CCR), Division 4, Chapter 20, Section 66270 *et seq.*

Underground Storage Tanks Law

The Underground Storage Tanks Law (H&SC, Division 20, Chapter 6.7) and the storage tank regulations (Title 23, CCR, Chapter 16) establish the standards and procedures for regulation of underground storage tanks. This law requires local implementing agencies to permit, inspect, and oversee monitoring programs to detect leakage of hazardous materials from underground storage tanks. Cleanup of contaminated soil and groundwater resulting from a leak or unauthorized discharge from an underground storage tank or associated plumbing may be directed by the local implementing agency (LIA) of the Regional Water Quality Control Board (RWQCB).

Air Toxics Hot Spots Information and Assessment Act

The state Air Toxics "Hot Spots" Information and Assessment Act of 1987 (H&SC, Division 26, §44300 *et seq.*), or AB 2588, establishes a statewide program to regulate toxic air contaminants that are released into the atmosphere. The Act requires operators of facility that manufacture, formulate, use, or release air toxics, as defined in H&SC §44321, to submit an inventory of the air toxics emissions from individual facilities (H&SC §44340). The Act authorizes the California Air Resources Board (CARB) to promulgate regulations for implementing the Act, which is found in Title 17, CCR. The Act also requires regional and local Pollution Control Districts to prioritize and categorize pollutant emitting facilities as either a "high," "intermediate," or "low" priority for health risk assessment (HRA) (H&SC §44360). The priorities for HRAs are based on several variables: emissions quantity, toxicity of emissions, and proximity of potential receptors. Those facilities characterized as high priority must submit an HRA to the district. Other, intermediate priority facilities may be required to submit HRAs depending upon the air district's regulations established pursuant to the Act. Quemetco is currently embarking on a series of source tests to update its AB2588 HRA.

Hazardous Waste Management Plan and Facility Siting (Tanner Bill)

The Tanner Bill (AB 2948), as codified in HSC §25100 et seq., authorizes California counties to prepare County Hazardous Waste Management Plans (CHWMP) and identify potential areas for the siting of needed future hazardous waste facilities. The bill creates a set of planning processes designed to inform each county of the hazardous waste generated within its jurisdiction, as well as to include procedures under which new hazardous waste facilities would be reviewed and sited.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (1969) provides for coordinated regulatory controls over all activities that may affect water quality. The Porter-Cologne Act is codified in Water Code §§13000 - 14948. The California State Water Resources Control Board (SWRCB) was created in 1969 as the Lead Agency to enforce the Porter-Cologne Act, which provides for the establishment of waste discharge requirements (WDRs) for discharges to the state's waters, including groundwater.

Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

The Safe Drinking Water and Toxic Enforcement Act of 1986 (H&SC §§25249.5 to 25249.13), commonly known as Proposition 65, and the Proposition 65 regulations (22 CCR §§12000 to 14000) prohibit substantial discharges into sources of drinking water, or onto land from which substances will probably migrate into a source of drinking water, of substances listed under the regulations as carcinogenic or having reproductive toxicity. Proposition 65 also requires public warnings prior to the exposure of drinking water sources, air, or soil to concentrations of listed substances. The California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) is the primary implementing agency for Proposition 65. In the event of a water release of listed substances exceeding Proposition 65 toxicity thresholds, the applicant would first be required to notify DTSC and the Regional Water Quality Control Board (RWQCB). For a release into the soil, DTSC would be notified. For an airborne release, the South Coast Air Quality Management District (SCAQMD) would require notification. Pursuant to Proposition 65, the applicant would then be required to provide public notice of the release and its potential effects on human health in local newspapers and/or notices mailed to affected residents.

2.5 REGULATORY AGENCIES

Federal, state, regional, and local agencies responsible for the implementation and enforcement of the regulatory framework described in Section 2.4 are described below. Table 2.5-1 summarizes relevant hazardous material regulatory agencies and their statutory authority.

2.5.1 Federal Agencies

United States Environmental Protection Agency

The EPA is responsible for developing and implementing federal hazardous waste regulations pursuant to RCRA, CERCLA, and subsequent amendments. In addition, EPA is responsible for administering the federal CWA, Federal Water Pollution Control Act (FWPCA), and Clean Air Act (CAA) and adopting federal regulations pursuant to the CWA and CAA. (The CWA is also administered by the State Water Resources Control Board and Regional Water Quality Control Board [SWRCB], and the CAA is also administered in the State of California by the California Air Resources Board.) EPA authorizes certain state agencies, such as the California Environmental Protection Agency (Cal-EPA), to administer state hazardous waste management, air quality, and water quality programs in lieu of the federal programs. Therefore, the applicant must comply with specific permit application requirements of Cal-EPA.

United States Department Of Transportation

The United States Department of Transportation (DOT) is responsible for implementing federal hazardous waste transportation provisions contained in the National Transportation Act and federal regulations adopted pursuant to the Act (Title 49, CFR). The scope of federal regulation of hazardous waste transport is primarily related to the interstate transport of such waste. The California Highway Patrol and DTSC are responsible for regulating in-state transport of hazardous wastes.

Table 2.5-1
Regulatory Hazardous Materials Regulatory Authority

Regulatory Agency	Jurisdiction	Statutory Authority/Implementing Regulations
FEDERAL AGENCIES		
Department of Transportation	Federal	National Transportation Act (49 USC §5101 *et seq.*) Title 49, CFR
Environmental Protection Agency	Federal	Federal Water Pollution Control Act (33 USC §1251 *et seq.*) Clean Air Act (42 USC §7401 *et seq.*) Resource Conservation and Recovery Act (42 USC §6901 *et seq.*) Comprehensive Environmental Response, Compensation, and Liability Act (42 USC §9601 *et seq.*) Superfund Amendments and Re-authorization Act (42 USC §9601 *et seq.*) Title 40, CFR
Occupational Safety and Health Administration	Federal	Occupational Health and Safety Act (29 USC §651 *et seq.*) Title 29, CFR
STATE AGENCIES		
Department of Toxic Substances Control (DTSC)	State	Hazardous Waste Control Law (H&SC Ch. 6.5) Hazardous Materials Release Response Plans/Inventory Law (H&SC Ch. 6.95) Underground Storage Tanks Law (H&SC Ch. 6.7, 6.75) Titles 17, 19, & 22, CCR Proposition 65 (H&SC 25249.5 to 25249.13), and 22 CCR §§1200 to 1400
Department of Industrial Relations (Cal-OSHA)	State	California Occupational Safety and Health Act (Labor Code §50 *et seq.*) Title 8, CCR
Environmental Protection Agency, Office of Environmental Health Hazard Assessment	State	Proposition 65 (H&SC 25249.5 to 25249.13), and 22 CCR §§1200 to 1400
State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB)		Porter-Cologne Water Quality Control Act (Water Code §13000 *et seq.*) Proposition 65 (H&SC 25249.5 to 25249.13) Underground Storage Tanks Law (H&SC Ch. 6.7, 6.75) Title 23, CCR Proposition 65 (H&SC 25249.5 to 25249.13), and 22 CCR §§1200 to 1400
California Air Resources Board (CARB)	State	California Clean Air Act (H&SC §39000 *et seq.*) Air Toxics "Hot Spots" Act (H&SC §44300 *et seq.*) Titles 13 and 17, CCR
State Highway Patrol	State	H&SC Ch. 6.5 and Title 49, CFR
State Fire Marshal	State	Uniform Fire Code (Title 19, CCR)
LOCAL AGENCIES		
Los Angeles County - Hazardous Materials Division	County	Tanner Bill (H&SC §25135 and 25199.7) H&SC Ch. 6.5, 6.7, 6.75, and 6.95 Title 22, CCR Proposition 65 (H&SC 25249.5 to 25249.13), and 22 CCR §§1200 to 1400
South Coast Metropolitan Air Quality Management District (SCAQMD)	County	California Clean Air Act (H&SC §39000 *et seq.*) Air Toxics "Hot Spots" Act (H&SC §44300 *et seq.*) Proposition 65 (H&SC 25249.5 to 25249.13), and 22 CCR §§1200 to 1400
Los Angeles County Sanitation Districts	County	Federal Water Pollution Control Act (33 USC §1251 *et seq.*) Porter-Cologne Water Quality Control Act (Water Code §13000 *et seq.*)
Los Angeles County Fire Department	County	Uniform Fire Code (Title 19, CCR)
Los Angeles County Sheriff's Department	County	Hazardous Materials Release Response Plans/Inventory Law (H&SC Ch. 6.95)

Source: DTSC, 1996

Occupational Safety And Health Administration

The federal Occupational Safety and Health Administration (OSHA) is responsible for implementation of the Occupational Safety and Health Act and federal regulations (Title 29, CFR) adopted by OSHA pursuant to the Act, which include provisions governing the storage and handling of hazardous materials. In the case of California, OSHA has authorized the California Department of Industrial Relations (Cal-OSHA) to administer state occupational health and safety programs in lieu of the federal program.

2.5.2 State Agencies

Department of Toxic Substances Control

DTSC, which is a department of the Cal-EPA, administers the state hazardous waste control program established under Chapter 6.5, Division 20 of the H&SC and implemented by regulations contained in Title 22, CCR. DTSC is authorized by EPA to act as the permitting agency for hazardous waste facilities under RCRA and associated federal regulations. DTSC in the lead agency for the proposed project and has discretionary authority over the approval or denial of proposed hazardous waste projects in California.

For the proposed project, DTSC wants to accomplish the following:

- Provide for public disclosure of any significant environmental effects associated with issuance of the RCRA Part B.
- Ensure that the storage and treatment of hazardous wastes at Quemetco are in compliance with state and federal requirements.

California Office Permit Assistance

Pursuant to H&SC et seq., the California Office of Permit Assistance (OPA) assists in the coordination of all responsible agencies and interested persons as needed throughout the hazardous waste facility permitting process. OPA duties involve assisting in the identification of state and local permits required for a proposed hazardous waste facility project; organizing meetings or conferences prior to the submittal of applications for permits to state and local agencies for the purposes of determining the scope of proposed hazardous waste projects, identifying state and local agency concerns and questions, and determining decision making schedules; assisting state and local agencies in consolidating public meetings and hearings permitted or required by law for the approval of required permits; encouraging the joint review and processing of permit applications; working with the applicant and public agencies to ensure that decision-making deadlines are met; and calling meetings or conferences to resolve questions or mediate disputes arising from permit applications (California Office of Planning and Research 1991).

California Air Resources Board

The California Air Resources Board, a department of the Cal-EPA, is the state agency responsible for administering the California Clean Air Act (CCAA) (H&SC §39000 et seq.) and the Air Toxics "Hot Spots" Information and Assessment Act (H&SC §44300 et seq.). Implementing regulations for the CCAA and "Hot Spots" Act are found in Titles 13 and 17, CCR. CARB also oversees the local implementation of CCAA and state air toxics legislation by various air pollution control districts (APCDs) and air quality management districts (AQMDs). The applicant would be required to comply with all applicable air quality regulations, plans, and permitting processes.

California State Fire Marshal

The California State Fire Marshall is responsible for the statewide implementation of Uniform Fire Code provisions, as adopted in Title 19, CCR. The Uniform Fire Code contains provisions regarding the storage and/or handling of hazardous waste and wastes. The state Fire Marshall also acts as an oversight agency for local and regional fire agencies. The applicant will be required to comply with all applicable fire regulations.

California Highway Patrol

The California Highway Patrol (CHP), in conjunction with DTSC, is responsible for the enforcement of state hazardous waste transportation provisions contained in Chapter 6.5, Article 6, H&SC. The CHP ensures that the transportation of all hazardous waste is carried out pursuant to a valid registration issued by DTSC and that waste is transported on DTSC-approved routes, which are typically the shortest and safest routes. The applicant will be required to comply with all applicable state and federal hazardous waste transport provisions.

Regional Water Quality Control Board - Los Angeles Region

The California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs), which are all part of the Cal-EPA, establish water quality standards as required by §303 of the federal Clean Water Act (33 USC §1313) and the state Porter-Cologne Water Quality Control Act (Water Code §§3000 - 14958). The SWRCB oversees the regional administration of the National Pollutant Discharge Elimination System (NPDES) by the individual RWQCBs, which act as the permitting agencies for discharges to surface waters pursuant to §402 of the federal Clean Water Act (33 USC §1344). No discharges to surface waters are proposed, however, the RWQCB also regulates discharges to sewers subject to pretreatment.

The SWRCB, through the individual RWQCBs, is also responsible for enforcing regulations promulgated pursuant to the Underground Storage Tank Law.

California Department of Industrial Relations

The California Department of Industrial Relations (Cal-OSHA) is responsible for implementing provisions of the California Occupational Safety and Health Act and state regulations contained in Title 8 of the California Code of Regulations adopted pursuant to the Act. The applicant will be required to comply with applicable Cal-OSHA regulations relating to hazardous materials storage and handling.

2.5.3 Local Agencies

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is the local agency with jurisdiction over air toxic emissions under the Air Toxics "Hot Spots" Act (H&SC §44300 *et seq.*). SCAQMD also has local jurisdiction over the permitting of stationary sources of air emissions pursuant to the state and federal Clean Air Acts. The proposed project will be required to comply with applicable rules and regulations of the SCAQMD.

Los Angeles County Sanitation Districts

The Los Angeles County Sanitation Districts (LACSD) regulate discharges to sewer pursuant to the federal Water Pollution Control Act (Clean Water Act) and the state Porter-Cologne Water Quality Act. LACSD is authorized to issue sewer discharge permits for discharges to Publicly Owned Treatment Works (POTW). The LACSD Sewer Use Ordinance prescribes acceptable criteria for discharges to Regional Wastewater Treatment Plants. The LACSD also implements the pretreatment standards promulgated by the EPA pursuant to the Clean Water Act. The applicant is required to comply with all sewer discharge permit requirements.

Los Angeles County Fire Department

The Los Angeles County Fire Department (LACFD) is the local agency responsible for enforcing the hazardous materials provisions of the Uniform Fire Code, as codified in Title 19, CCR. The LACFD would respond to fire-related incidents at the Quemetco facility. The City of Industry contracts with the LACFD to provide fire services within the City.

Los Angeles County Sheriff's Department

Pursuant to the facility Emergency Response Plan (ERP), Los Angeles County Sheriff's Department is notified of hazardous materials spills with the potential for offsite consequences.

2.6 PROJECT CHARACTERISTICS

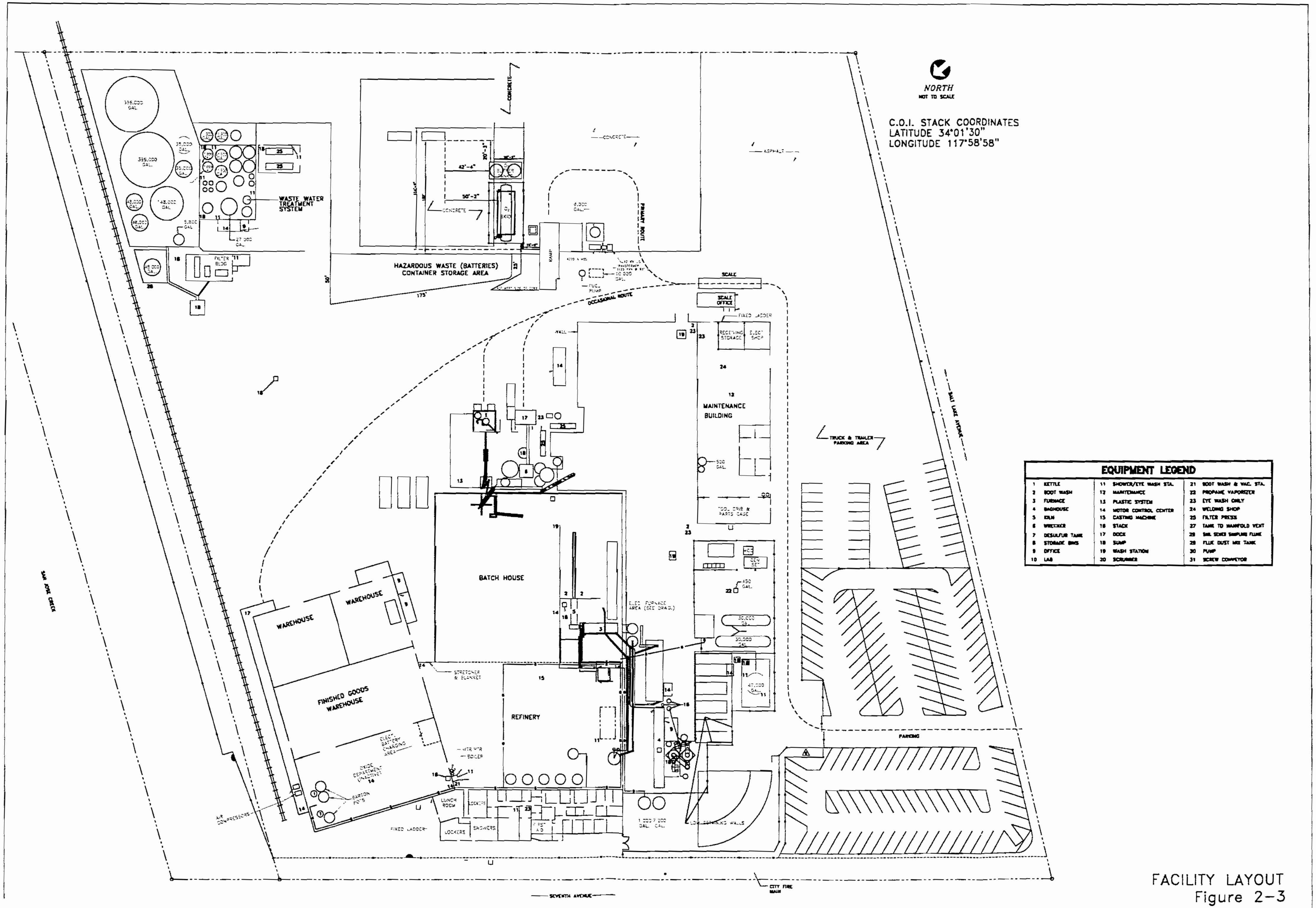
The project, and the subject of the RCRA Part B application, is the Operating and Post-Closure Permit for Quemetco's battery recycling facility in the City of Industry. A general layout of the facilities on the site is provided in Figure 2-3. It is intended that the Quemetco facility operate to the levels of production that are currently established by permit, consequently, there would be no new expansion or construction of facilities associated with the project. The existing manufacturing, treatment/abatement processes, and hazardous materials storage activities conducted at the facility, including the specific activities that require a permit, are described in the subsections that follow. Select pages from the Hazardous Waste Facility and Post-Closure Permit regarding permitted units are provided in Appendix B. Additional information on the permitted units can be found in the Application on file with the DTSC, Quemetco, and Hacienda Heights Public Library.

2.6.1 Facility Access, Security, and Transportation Characteristics

The project site is accessed from Salt Lake Avenue in the City of Industry. A typical access route to the facility for trucks includes the Pomona Freeway (SR 60), to the Seventh Avenue off-ramp, then north approximately ½ mile to Salt Lake Avenue. Ingress and egress of personnel and vehicles is through gates which are electronically controlled or monitored by onsite personnel.

The active portions of the facility are secured within the plant boundaries and supervision is provided 24 hours per day, 365 days per year. Unauthorized access to the facility is restricted by perimeter fencing. An eight-foot chain link or wood slat fence surrounds the operational area of the plant. Access to the site is controlled through electronically controlled gates that are equipped with a video camera and telephone, or by a guard. Video monitors are located in the Scalehouse Office, the laboratory, and the maintenance office. There are three gates to the operational areas of the plant, a rail spur entry gate, front truck and main gates, and rear truck gates. The front truck and main gates are equipped with a telephone by which visitors notify personnel that they require access to the facility. Personnel can remotely operate the gates to give access to visitors. The rail spur entry gate is kept locked unless it is in use. The rear gate is closed when not is use and is locked between the hours of 8:00 p.m. and 4:00 a.m.

The facility receives approximately 50 truckloads per day of incoming raw materials, batteries, and scrap. There are approximately 25 truckloads per day of outgoing materials including finished goods, solid wastes, and recyclables. Shipping/Receiving personnel, the Production Supervisor, and Laboratory personnel control traffic into and out of the plant. This control includes logging in and out of all arrivals and departures. Flow is coordinated with Shipping/Receiving personnel who schedule most traffic for maximum efficiency and in conjunction with operational needs. Most trucking is done during the day or early evening hours.



FACILITY LAYOUT
Figure 2-3

Employees work in 3 shifts, 7:00 a.m. to 4:00 p.m., 3:00 p.m. to 11:00 p.m., and 11:00 p.m. to 7:00 a.m. A total of approximately 160 people are employed onsite. The greatest number of employees work the day shift (7 a.m. to 4 p.m.).

2.6.2 General Description of Facility Processes and Activities

The facility operates 24 hours per day, 7 days per week, 365 days per year. Figure 2-4 illustrates the general recycling process from incoming material to finished product. The Quemetco facility recovers and reprocesses lead from used automotive batteries and other sources. Approximately 10 million batteries are recycled at the facility annually, which produces approximately 120,000 tons of pure lead, lead calcium alloys, and lead antimony alloys.

The process units and other phases of recovery and reprocessing are located in the central portion of the 15-acre site along with various support buildings, including administrative offices, laboratories, and equipment maintenance areas. The used batteries are delivered to the facility by truck. Upon arrival, they may be staged in trailers or are off-loaded and transferred to either the battery storage area or the reclamation process area. The battery storage area is one of the permitted operating units and is located directly adjacent to the Battery Wrecker dock.

Batteries begin processing in the battery wrecker. The battery wrecker is a permitted operating unit which consists of 12 permitted processing units. The batteries are crushed and the pieces fed into sink/float cells where the "lighter" plastic and rubber components of a battery are separated from the "heavier" lead bearing material. The recovered plastic materials are washed with water and blown into trailers for storage and subsequent shipment to a plastic recycling facility.

Lead-containing materials recovered during the separation process, including lead plates, posts and grids, are temporarily stored in the facility's Containment Building until they can be processed in a drying kiln and fed into the reverberatory furnace. The containment building is a permitted materials storage unit located adjacent to the furnace department and refinery. The reverberatory furnace is a permitted unit located east of the refinery an south of the containment building. Molten lead is tapped from the furnace into molds and cooled to form unrefined lead blocks. Partially depleted slag from the reverberatory furnace is transferred to the permitted slag reduction furnace for additional metals recovery. Molten lead from the slag reduction furnace is also tapped into molds. The lead blocks are placed in refining kettles, where they are melted and refined to meet customer specifications. The refined molten lead is poured into molds and cooled to form ingots and blocks, which are stored in a warehouse adjacent to the refinery area, prior to shipment.

Batteries contain electrolytic fluids, which are captured at the battery wrecker and sent to the WasteWater Treatment Plant for purification. The WasteWater Treatment Plant is a permitted operating unit containing 28 separate permitted units. Effluents from the furnace wet gas scrubbers and desulfurization filter presses are sent to the wastewater treatment facility for processing, as are washdown water, and all stormwater collected on the site. The existing water treatment processes include pH adjustment, oxidation, flocculation, and clarification. The treated effluent from the facility's water treatment plant is discharged to the sewer in accordance with a permit from the Los Angeles County Sanitation Districts.

Baghouses are used to control process and fugitive dust emissions. Dusts collected in these baghouses are returned to the process. Wet scrubbers are also used to control emissions of sulfur oxides from the reverberatory and slag reduction furnaces.

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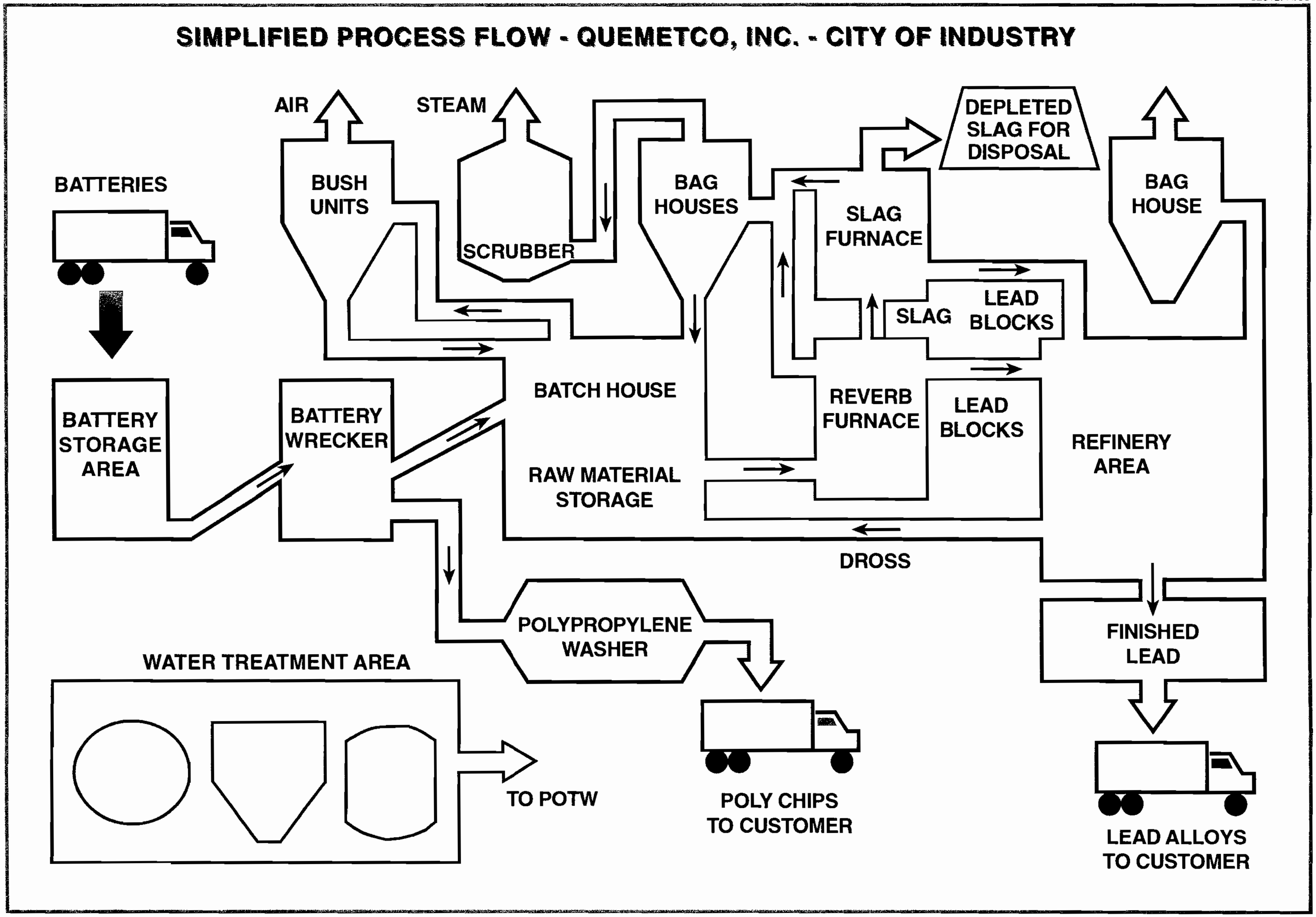


Chambers Group

PROCESS FLOW DIAGRAM
Figure 2-4

2.6.3 Hazardous Wastes Managed by Quemetco

Quemetco uses various lead bearing raw materials that may be classified as hazardous waste in its operations. Table 2.6-1 presents a summary of the wastes, annual quantities and how the wastes are managed.

2.6.3.1 Hazardous Wastes Managed from Offsite Generators

Batteries and Battery Components

The primary material processed by Quemetco is the used lead-acid battery, which accounts for approximately 90 percent of the materials received from offsite sources. The percentages may change depending on supply, and exact specifications change from manufacturer to manufacturer. A typical lead-acid battery may have the average composition shown in Table 2.6-2.

The majority of other materials (e.g., battery components) received by Quemetco are obtained or purchased from battery manufacturers, lead fabricators, and other lead associated industries. Receipt of these materials is based on the compatibility of these batteries with Quemetco's processes and the metal content of the material. Process knowledge of the operations from which these materials are generated as well as periodic sampling and analyses of the received material, ensures that these materials are within known ranges of compositions.

Battery manufacturers often require a specific alloy of lead to be compatible with their manufacturing process. As such, the used batteries that are received may contain tin, copper, arsenic, antimony, iron, sulfur, nickel, bismuth, silver, zinc, cadmium, tellurium, calcium, aluminum, selenium, and possibly other constituents.

Although this variability exists, it is not necessary for Quemetco to precisely identify the composition of each incoming waste it receives with respect to these constituents in order to safely and effectively store or process the waste. All the wastes received may exhibit hazardous lead characteristics. Some materials may also exhibit other characteristics, such as corrosiveness. Quemetco blends the different incoming materials for feed to the reverberatory/slag reduction furnaces that produce an intermediate lead, which is subsequently refined in kettles. The refining process serves to adjust the final composition of the lead (in batches) to precise customer specifications. The refining process includes steps to both remove excess components and to add alloying elements.

Quemetco also receives off-specification materials from battery manufacturers. These materials include unused battery cases with or without posts, unused plates, and lead oxide paste. As defined by the California Health and Safety Code section 25120.5(e), these materials are not regulated as hazardous wastes but as retrograde materials undergoing reclamation.

Plant Scrap

Quemetco divides the plant scrap it accepts into three different categories based upon the industry generating the waste: Authorized, Conditional, and Non-Reclaimable Materials.

Table 2.6-1
Waste Description

Description	Annual Quantities	Onsite Management	Maximum Capacity
Raw Materials from Offsite			
Spent lead-acid batteries and component parts (automotive and industrial).	75,000 tons	Changed directly into process or stored in a regulated container storage area.	Battery storage area, Volume: 222,330 batteries or 4,002 tons.
Other lead bearing materials.	34,908 inclusive	Charged directly into process or stored in a regulated container storage area.	Battery storage area, Volume: 372 drums or 418.5 tons plant scrap.
Generated Onsite and Recycled or Treated Onsite			
Wastewater (includes process wastewater, stormwater, plant wash-down, equipment wash-water, etc.).	71,169,680 gallons	Treated through onsite regulated wastewater treatment system (neutralization, metals precipitation, filtration). Discharge to publicly-owned treatment works is non-hazardous.	98,550,000 gallons per year.
Liberated battery acid from spent battery reclamation.		Collected in one of two regulated sumps (tanks). Conveyed to wastewater treatment or through one of three regulated desulfurization (mud) tanks.	N/A
Separator fluff/rubber chips from reclamation of spent batteries.		Screw conveyed to containment building prior to being charged to furnace.	N/A
Generated Onsite, Sent Offsite for Recycle or Disposal			
Polypropylene battery case chips from reclamation of spent batteries.	5,599 tons	Stored in tractor trailers for a minimum of 72 hours prior to shipping to offsite plastics reclamation.	N/A
EAF furnace slag.	15,020 tons	Stored for less than 90 days in roll-off box prior to shipment offsite for disposal.	N/A
Non-lead batteries.	30,250 lbs	Stored on trailers as hazardous waste less than 90 days.	N/A
Indigenous materials.	892 tons	Stored on trailers as hazardous waste less than 90 days.	N/A
Furnace brick.	403 tons	Roll off bins.	N/A
Contaminated concrete/asphalt/ and soil.	823 tons	Roll off bins.	N/A

Source: Quemetco, Inc. RCRA Part B Application, December 22,1999.

Table 2.6-2
Average Lead Acid Battery Composition

Total Battery	%	Weight
Light Metal (grids and posts)	26	9.5 lbs.
Polypropylene	6	2 lbs.
Lead Paste	38	13.5 lbs.
Electrolyte	26	9.5 lbs.
Separators	4	1.5 lbs.
Total	100%	36 lbs.

Authorized Materials

Lead-acid batteries and battery components thereof:

Battery electrolytes
Acid dump/fill solids
Sump muds
Baghouse bags
Sweepings
Wastewater treatment sludges, filter cakes, residues and solids from lead associated industries[1]
Emission control dusts from lead associated industries
Spent battery grids, posts, and separators
Lead oxide and lead oxide residues
Lead plates and groups
Spent battery cases, cover vents, and buttons[2]
Scrap metal
Charging jumpers and clips
Slag
Dross
Secondary smelting slag
Paste slurry and paste slurry screening

Conditional Materials

Acid filters
Lead based pigments
Pigment dust
Sand blasting dust
Shop abrasives
Wastewater treatment sludges, filter cakes, residues, and solids
Emission control sludges, filter cakes, residues, and solids
Unspecified lead containing materials

---

[1] Lead associated industries are lead smelters, lead acid battery manufacturing, and lead chemical manufacturing (e.g., manufacturing of lead oxide or other lead compounds).

[2] These off-specification materials are crushed, mixed with use battery case chips and shipped to an off-site reclamation facility.

Both authorized and conditional categories of materials must conform to the following conditions to be reclaimed at this facility. They:

- must have a recoverable amount of lead;
- must not be contaminated with organic compounds listed in CCR Title 22, Appendix VIII of Chapter 11 exceeding 500 ppm by weight; and
- have a heating value less than 5,000 BTU/lb.

The facility will occasionally receive the following materials from customers and suppliers. These wastes are generated in the same manner as similar wastes generated by Quemetco. Quemetco's air permits prohibit reclamation of these wastes. However, when received, they will be combined with site generated indigenous waste for offsite stabilization and disposal.

Non-Reclaimable Materials

Clothing (e.g., coveralls, aprons, shoes, hats, gloves, etc.)
Contaminated pallets
Paper hand towels
Pasting additive bags
Platen abrasive
Respirators and cartridges
Stacking boards
Waste shipping containers (e.g., carbons, bags, drums, cardboard, etc.)
Wiping rags and sponges

The following wastes are rejected when received and sent back to the generator or shipped at the generator's expense to an appropriate treatment, storage, and disposal facility (TSDF).

Excluded Materials

Asphalt paving materials
Spent laboratory chemicals
Organic materials such as oil and grease
PCBs
Asbestos
Non-lead batteries (e.g., ni-cads, carbonaire, alkaline, etc.)
Aluminum wastes
Chromium waste
Mercury waste
Solvents
Radioactive wastes
Pasting belts
Cheesecloth and pasting rollers
Wastewater treatment filter press cloth

2.6.3.2 Future Materials Subject to Waste Analysis

Quemetco may locate new or non-conventional sources of hazardous wastes or materials that are acceptable for use, e.g., RCRA and non-RCRA hazardous wastes. Prior to issuing a purchasing contract, Quemetco will either require the vendor to fully characterize the material or Quemetco perform the sampling and analysis required. Based on the generator's knowledge of the source of the material, Quemetco will require the following tests as appropriate:

- Total Metals - Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver
- TCLP Metals - Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver
- TOX

2.6.3.3 Materials Generated Onsite and Treated Onsite

These materials are by-products of the secondary smelting and refining process that are managed and treated onsite.

Battery Acid/Process Liquids

When batteries are broken at the Battery Wrecker, acid drains to a collection sump. This liquid is treated at the onsite WasteWater Treatment Plant prior to discharge. Process/cooling water, containment building liquids, decontamination water, plant wash-down water and stormwater are also conveyed to the Wastewater Treatment Plant for treatment.

When batteries are broken at the Battery Wrecker, the acid and lead compounds in suspension are pumped to filter presses and/or clarifiers to recover lead compounds. Desulfurization using sodium carbonate may be done at battery wrecker tanks is required by lead smelting/refining process conditions and/or to decrease the amount of SO_2 flue gases to be removed at air pollution control scrubber/tanks. Scrubber water, process/cooling water, containment building liquids, filter press effluent, decontamination water, plant wash-down water and stormwater are conveyed to water treatment tanks area. Water treatment process consists of oxidation, neutralization, precipitation, clarification, and filtration. Some streams of water are recycled for reuse at process. Treated water is discharged to POTW under permit from the Los Angeles County Sanitation Districts, complying with Effluent Limitations for Nonferrous Metals Manufacturing Secondary Lead (40CFR 421 Subpart M).

Emission Control Dust

Air emissions are controlled by an extensive series of air pollution control devices. The dust from these units contains a significant amount of recoverable lead. The waste is automatically conveyed by a conveyor system to the furnaces or to drop out boxes. The drop out boxes are considered part of the air pollution control equipment and, therefore, exempt the flue dust from hazardous waste management requirements.

The boxes that temporarily store flue dust are emptied in the containment building for processing in the furnace.

Wastewater Treatment Sludge

Sludge and filter cakes are by-products of the battery wrecker and the wastewater treatment process. The battery wrecker filter press cake is conveyed to the containment building. Located in the containment building are additional filter presses that dewater sludge. The WasteWater Treatment Plant also generates a sludge that is dewatered in a filter press, conveyed to the containment building, and ultimately furnaced.

Rubber Case Material

Hard rubber case batteries are fed to the battery wrecker with regular lead acid batteries, but the rubber cases are not separated as with plastic cases. The hard rubber comprises a very small amount of the total feed volume, typically, one to three percent. Based on this amount, Quemetco calculates how much is fed to the reverberatory furnace each day in conformance with its SCAQMD operating requirements.

Reverberatory Furnace Slag

During the lead smelting process, impurities from the charged material form a slag, which floats on top of the lead "bath." The impurities are metals which battery manufacturers add to the metal to give it a specific characteristic, such as brittleness or conductivity. Because the slag forms a layer which insulates the lead bath, it is continuously drained off either directly to the Reverberatory Furnace or to the containment building. This material is also accepted for reclamation from offsite sources.

Pot Dross

In the refining process, impurities (pot drosses) are removed to achieve the purity of lead required by manufacturers. These pot drosses are collected in containers at the refining kettles and emptied in the containment building. Pot drosses are fed to the furnaces for reclamation or shipped offsite for stabilization and disposal.

2.6.3.4 Materials Generated or Managed Onsite and Sent Offsite for Reclamation and Disposal

Polypropylene

After batteries are punched and crushed in the battery wrecking process, the polypropylene case is separated from the lead bearing material. The polypropylene is washed and transferred to trailers. The trailers are staged prior to shipment to a plastic recycler. Excess liquid is collected and transferred to the Wastewater Treatment Plant.

Furnace Slag

Slag produced by a reverberatory furnace is conveyed to the slag reduction furnace. After smelting in the slag reduction furnace, the lead content of the depleted slag is less than or equal to 20 percent. The slag is conveyed out of the furnace to the containment building. If the lead is not less than or equal to 20 percent, it is charged back to the reverberatory furnace and the slag reduction furnace for further reclamation. If further reclamation is not feasible, the slag is loaded from the containment building to end dump trailers for transportation to an appropriate permitted disposal facility. There, it is treated to comply with land disposal restrictions.

Non-Lead Batteries

Non-lead batteries such as, but not limited to, ni-cad, carbonaire, lantern, and alkaline batteries are sometimes inadvertently shipped to Quemetco with lead-acid batteries. Often these are not detected during load inspections because they are packed with lead acid batteries and only found when the batteries are taken off the pallet to be introduced into the system. When found, they are stacked on a pallet and labeled with a universal hazardous waste label. Damaged batteries are properly containerized before labeling. Containers are then stored on flat bed trailers for no longer than one year provided the amount does not exceed 5,000 kilograms. Quemetco will either bill the original generator the cost of disposal or return the material to the generator so the generator can arrange for the proper packaging and disposal of the material to a TSDF.

Remediation - Concrete and Soil

In accordance with Quemetco's Operations Plan, inspections are conducted of the battery storage area and surrounding areas. When the concrete or asphalt is in need of replacement, the old material and possibly some soil is managed as a hazardous waste. Also, as improvements are made to the property and if soil is found to be contaminated, it is managed as a hazardous waste.

Waste Equipment Fluids

There are a considerable number of vehicles and heavy equipment required for the operation of the Quemetco facility. These vehicles are serviced regularly. Some of the liquids may be contaminated with lead, such as equipment motor oil and lubrication oil for the refinery "pig" caster. These two oils are managed separately because of the relatively high lead content of the pig caster oil compared to the waste motor oil. The refinery pig caster oil is collected in catch basins then transferred to 55-gallon drums and managed as hazardous waste. The waste motor oil is transferred from catch basins during servicing to a 275-gallon waste oil tank for storage. Both oils are shipped to a recycling facility. Waste antifreeze is also collected in 55-gallon drums and managed as hazardous waste.

Indigenous Wastes

Throughout the plant there are containers used for personnel to dispose of respirator cartridges, gloves, tyvek suits, and other plant refuse. There are bins beside the battery wrecker to receive cardboard and plastic wrap as the pallets of batteries and battery components are fed into the system. All these materials are compacted and baled together at the battery wrecker trash-baling machine. The bales are placed in a trailer and the trailer is labeled with the date the first bale is accumulated. The trailer is transported to a hazardous waste facility within 90 days.

Waste Refractory Brick

When the furnaces require repair or rebuilding, the damaged refractory brick is collected in a roll-off container and shipped offsite for stabilization and disposal.

2.6.4 Remedial Actions Identified by the RFA

2.6.4.1 Former Surface Impoundment

An approved Closure Plan for the former surface impoundment is in effect and closure of this area was completed in 1994. Closure of the former surface impoundment was part of the corrective action required by the Consent Decree effective January 1988 and the associated Administrative Consent Order. A Negative Declaration pursuant to CEQA was issued for the closure of the former surface impoundment on December 30, 1993 (State Clearinghouse Number 93051047).

The Post Closure Plan for the former surface impoundment is included in the RCRA Part B Application as Exhibit 11.0-2. The post closure care period for the former surface impoundment is 30 years and is scheduled to end in 2024. Post-closure care includes a groundwater monitoring program and inspection and maintenance of final cover of the surface impoundment.

2.6.4.2 Former Raw Materials Storage Area

Closure of the former raw materials storage area was completed as part of the corrective action required by the Consent Decree effective January 1988 and the associated Administrative Consent Order. The former raw materials storage area was closed between February and September 1995 according to an Interim Remedial Measure Work Plan dated May 10, 1994. An Interim Remedial Measures Report for the Former Raw Materials Storage Area was prepared following completion of the remedial action in October 1995.

2.6.4.3 Other Remedial Actions

No other remedial actions have been specified at this time.

2.6.5 Closure and Post Closure Plans

2.6.5.1 Closure Plan

The RCRA Part B Application includes a facility Closure Plan as Exhibit 11.0-1. This plan will become a condition of the Operating Permit for the Quemetco Facility. The Closure Plan identifies the steps necessary to completely close the facility at the end of its intended operating life, and applies to the following permitted operating units: slag reduction furnace; reverberatory furnace; battery wrecker; water treatment system; container storage area; containment building.

In accordance with RCRA Permit application requirements, an estimated closure schedule is included in the application and is shown in Table 2.6-3. The RCRA Permit application requires an estimated closure date and assumes that the facility would close 30 years from the initial application date. This is not a firm closure date. The following schedule includes an estimate of the expected year of closure, a schedule for final closure, the total time required to close the facility, and the time required for intervening closure activities which will allow tracking of the progress of closure.

Table 2.6-3
Estimated Closure Schedule

Action	Estimated Date[1]
180-Day Notice Of Intent To Close	August 2020
Final Receipt Of Wastes	February 15, 2021
Maximum Waste Inventory Removed	April 30, 2021
Furnace Building Secured	May 30, 2021
Regulated Units Confirmed Decontaminated	June 15, 2021
RMPS/Referb Feed Room Secured	June 20, 2021
Plant Pavement Powerwash Complete	July 10, 2021
Stormwater Discharge Pipe Construction Complete	July 31, 2021
Inspection/Certification	August 5, 2021
Closure Complete	August 15, 2021
Post-Closure	August 2021 to August 2051
Closure activities include inventory removal, decontamination, soil contamination testing, and certifications of closure for the battery storage area and the 10,000-gallon underground fuel tank system. Also included in the closure activities is the construction of a discharge pipe to remove storm water collected during the post-closure care period.	

2.6.5.2 Post-Closure Plan

The Closure Plan includes a Post-Closure Plan that identifies activities that will be carried out on or after closure of the regulated units and specifies the frequencies of those activities. The activities will ensure the integrity of the facility's pavement (final cover) and the function of the monitoring equipment.

The post-closure plan will be implemented after closure is complete. Post-closure includes the routine maintenance and repair of the facility security system, facility inspections, and the collection and discharge of stormwater runoff during the 30-year post-closure care period. Routine maintenance and repairs shall be conducted on the facility security system to assure that unauthorized persons are not permitted to enter the facility. Maintenance and repairs shall be conducted on the chain-link fence surrounding the facility, as necessary.

Monthly visual facility inspection shall be conducted to verify the structural integrity of the surface pavement, security system, and storm water detention pond, and to verify the proper operation of the stormwater discharge pump. Monthly reports will be prepared to summarize the inspections.

SECTION 3.0 - ENVIRONMENTAL IMPACT ANALYSIS: ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

3.1 LAND USE AND PLANNING

3.1.1 Environmental Setting

The City of Industry consists of approximately 10 square miles, stretching from the City of El Monte to the west to the City of Pomona to the east. The City of Industry boundaries were established to separate its primarily industrial uses from the adjacent residential uses of the neighboring cities (City of Industry, 1971). The County of Los Angeles' unincorporated Community of Hacienda Heights is located approximately ¼-mile south, while the City of La Puente is located approximately one mile north of the project area. The unincorporated Communities of Avocado Heights and Bassett are located approximately ½-mile west of the project area. The Quemetco facility (the property) is located within the southwestern portion of the City of Industry (City) at the intersection of Seventh Street and Salt Lake Avenue. The project area is shown on Figure 2-1, Project Vicinity Map.

3.1.1.1 Existing Land Use

The Quemetco property is a nearly level 13-acre parcel bound by the concrete-lined San Jose Creek to the north, Salt Lake Avenue to the south, Seventh Avenue to the west and a vacant lot to the east. Driveway access to the Quemetco property parking lot from Salt Lake Avenue is located 300 feet east of the Salt Lake Avenue and Seventh Street intersection.

The following uses and activities are performed on the project site: office administration, maintenance of equipment and buildings, battery smashing, battery recycling, storage of liquids in tanks, battery restoration, laboratories, smelting in reverbatory furnace, refinery smelting in electric furnace, molding of ingots of lead, warehousing of ingots of lead, water treatment, air pollution controls, wet scrubbing, desulfurization. The site plan for the Quemetco property is shown and described in Section 2.6 and Figure 2-3 (Facility Layout). A warehouse, office, maintenance buildings, containment buildings, and a refinery are the main structures on the project site and are located in the central areas of the site away from property edges. Tanks and piping used for onsite processes are located near the property edges. These structures are visible from surrounding land uses because of their size and height (up to 50 feet). The water treatment plant is located at the northeast corner of the project site. The treatment plant handles the liquid waste and washing waters from the recycling processes and cleans them prior to discharge into the sewer system. A man-made surface impoundment (pond) was previously located near the northern boundary of the project site. Quemetco closed the inactive surface impoundment as required by the EPA/DTSC in December of 1994. Quemetco now uses holding tanks as containment structures prior to treatment at the onsite water treatment facility. The location of the former impoundment is shown on Figure 3.3-1, in Section 3.3, Water Resources and Water Quality.

3.1.1.2 Surrounding Land Uses

The area immediately surrounding the project site contains industrial and manufacturing uses with some service commercial uses located along Seventh Avenue.

<u>North</u>

The concrete-lined San Jose Creek bounds the property to the north and carries stormwater from the project site and surrounding areas northwest to the San Gabriel River. Businesses to the north of the Quemetco property, across the San Jose Creek, include Avery Dennison Stationary Products, Inc., Olympia Industrial, Inc., Volkswagen of America, Inc., and the Golden State Food Corporation (City of Industry, 1995). The surrounding area includes similar industrial uses.

The nearest residential neighborhood to north of the project site is located within the City of La Puente. This area consists of single-family homes and some multiple-family dwellings are located approximately one mile to the northeast of the site. Associated neighborhood commercial uses, schools and churches are also located in this neighborhood.

South

Salt Lake Avenue, a two-lane primary road, bounds the property to the south. The Union Pacific Railroad (UPRR) tracks are located immediately south of Salt Lake Avenue. A separated grade crossing for the UPRR was constructed over Seventh Avenue, and Salt Lake Avenue was lowered to accommodate the crossing. Businesses to the south of the property, across the UPRR tracks, include Traklite Troy Lighting, Mansion Industries, and an AM/PM Market (City of Industry, 1995). The surrounding area includes similar industrial uses.

The nearest residences to the project site are located within the County of Los Angeles' unincorporated Community of Hacienda Heights approximately ¼-mile south. This community is dominated by low-density residential development. The nearest homes are blocked from the Quemetco facility by a two-story industrial building that extends along Clark Avenue. The Pomona Freeway (SR 60) is located approximately ½-mile south of the property within Hacienda Heights.

West

The western side of the property is bound by Seventh Avenue, a four-lane divided roadway. A six-foot chainlink fence and screening hedges on the western boundary block views of the property from Seventh Avenue. Businesses across Seventh Street from the property include the Industrial Steel and Wire Corporation, and the West Point Pepperell Distribution Center (City of Industry, 1995). The surrounding area includes similar industrial uses.

The nearest communities located to the west of the project site include the County of Los Angeles' unincorporated Communities of Avocado Heights and Basset approximately ½-mile west of the property. These communities consist of low-density residential development. The Community of Avocado Heights has more rural character compared to the surrounding community with larger yards and some equestrian trails. Schools, churches and a Bible College are also located in this area.

East

An undeveloped parcel borders the property to the east. Industrial businesses are located beyond the vacant lot to the east and include Industrial Fiber Glass, Mercury Plastics, Piper Casepro and California Gym (City of Industry, 1995). The surrounding area includes similar industrial uses.

3.1.1.3 Land Use Plans, Policies and Regulations

Resource Conservation and Recovery Act (RCRA)

RCRA was established in 1976 as the principal federal legislation governing hazardous waste. RCRA imposes reporting, permitting and operational control over entities that generate, treat, store, or dispose of hazardous materials or waste. Under RCRA, Quemetco, Inc. is required to obtain a permit to treat or store hazardous wastes, such as lead. The existing battery recycling facility was granted interim status under RCRA in 1980 and obtained a Part A temporary operating permit in 1983. The proposed project is the issuance of a RCRA Part B operating and post-closure permit for the Quemetco facility. Additional information regarding RCRA is provided in Section 2.4.1 of this EIR.

City of Industry General Plan

The City of Industry General Plan consists of a Land Use, Circulation, Housing, Seismic and Public Safety Element. The General Plan provides a "framework for guidance of growth and transformation of the City into a productive and pleasant environment for manufacturing, distribution and industry and their supporting facilities." The Land Use Element establishes the City's primary goal as "creating and maintaining an ideal setting for manufacturing, distribution, and industrial facilities within the City", but that "creating a setting that is complimentary to its neighboring communities" is equally important (City of Industry, 1971a).

The General Plan has established the following six principal objectives intended to work toward the above-mentioned goals:

- Maintain and further develop an employment base in the San Gabriel Valley and the Los Angeles Metropolitan area;
- Initiate capital improvement programs and incentives to provide a full range of industry requirements;
- Accelerate and sustain a tax base able to support the growth potential of the area;
- Develop a highway and street network that will serve all circulation desires with a minimum of conflict and inconvenience;
- Perpetuate, and in some cases, instigate programs to beautify the City of Industry and to conserve its natural resources;
- Encourage commercial, professional and services uses to support manufacturing, distribution and industrial uses.

With the exception of the commercial, school, and park and recreation areas located in the northern portion of the City, the City of Industry General Plan Land Use Map designates the entire City, including the project site, as "Industrial". Manufacturing, commercial-retail and warehousing are the primary industrial land uses within the City. The General Plan states that it does not identify areas that are particularly suitable for specific land uses, but rather allows economic forces to decide the extent and location of industrial and commercial development. In this way, the General Plan deviates from the traditional General Plan and tailors its planning philosophy to the characteristics of the City (City of industry, 1971a).

City of Industry Zoning Code

The Quemetco property is located within Zone M, as defined in the City of Industry Municipal Code. Zone M is the Industrial Zone and allows a wide variety of industrial uses. Permitted uses include assembly plants, metal fabrication, storage of agricultural chemicals, and many types of manufacturing including battery manufacturing and recycling. The zone also allows agricultural uses such as greenhouses and cattle grazing (City of Industry, 1999).

Hacienda Heights Community Plan

The unincorporated community of Hacienda Heights is located within the County of Los Angeles (County). The project site is located approximately ¼-mile from residences within this community. The County has developed the Hacienda Heights Community General Plan, which provides broad goals and specific policies for achieving community goals. Among those goals is the preservation of the community's "small town" predominantly single-family residential character and the prohibition of the expansion of the industrial area within the community. The plan also establishes a land use policy that prohibits residential uses in industrial areas (County of Los Angeles, 1978).

3.1.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant adverse impact related to land use and planning 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 adopted for the purpose of avoiding or mitigating an environmental effect
- Conflict with any applicable habitat conservation plan or natural community conservation plan

The following section, 3.1.3 Environmental Impacts, is organized to address each significance threshold.

3.1.3 Environmental Impacts

Operations

Physically Divide an Established Community

The project site is located within the City of Industry and is surrounded by industrial and manufacturing uses. The battery recycling facility has been at its present location since 1959. Therefore, the continuation of existing operations at the Quemetco facility would not divide an established community. No adverse impact results from the continued operation of the Quemetco facility.

Conflict with Applicable Land Use Plans, Policies or Regulations

Land Use Compatibility

The proposed project is the issuance of a RCRA Part B operating and post-closure permit for the Quemetco, Inc. battery-recycling facility. No changes to existing operations would occur under the proposed project. Therefore, no changes to existing land uses on the project site would result. The Quemetco facility is immediately surrounded by industrial and manufacturing uses. These industrial uses and others permitted in the Industrial zone in the City of Industry are compatible with the existing battery recycling facility use. No impacts to land use compatibility would result from the continued operation of the Quemetco facility.

The project site is bordered to the north by the concrete-lined San Jose Creek, which carries flood waters northwest via the San Gabriel River to the ocean. Although the presence of the channel adjacent to the battery recycling facility does not result in a land use inconsistency, the proximity of the two uses may result in potential impacts to water quality. Water quality is discussed in Section 3.3 of this EIR.

The nearest residential neighborhoods are located approximately ¼-mile south of the project site in the community of Hacienda Heights, ½-mile west in the community of Avocado Heights, and one mile northeast in the City of La Puente. The presence of residences approximately ¼-mile from the project site is not considered a land use inconsistency. Potential impacts to the residential areas resulting from project operations are discussed in Section 3.4, Air Quality; Section 3.5, Noise; Section 3.6, Risk of Upset; and Section 3.7, Human Health and Safety of this EIR.

Plans, Policies, and Regulations

RCRA

The existing battery recycling facility has been operating under a Part A temporary operating permit since 1983, in compliance with RCRA. Quemetco, Inc. submitted its Part B Application for DTSC review in April of 1994. Upon completion of the review of the Part B Application, the DTSC can issue a Part B permit, contingent upon the preparation and implementation of a plan to clean up any waste contamination and to operate in compliance with federal and state law. Since 1980, Quemetco has undergone several investigations and inspections and has implemented several corrective actions on the property as required by the DTSC. Quemetco has performed the required cleanup operations, and has developed a contingency plan, waste management plan, and DTSC-approved operations protocol guidelines. This EIR is part of the environmental documentation required for approval of the Part B application. With the approval of the Part B permit from the DTSC, in compliance with RCRA, the facility will be allowed to operate until 2021.

City of Industry General Plan and Zoning

The City of Industry General Plan Land Use Map designates the entire City, including the project site, as "Industrial". The project site and the surrounding area are located within Zone M, as designated by the City's Zoning Code. A battery recycling facility is a permitted use in Zone M and is consistent with other types of uses normally permitted under the "Industrial" General Plan designation. Therefore, the facility is consistent with existing land use designations.

Since the proposed project is the continuation of an industrial operation within a city that supports industry and is located in an area dominated by manufacturing and industrial uses, the project is compatible with the City's primary goal of "creating and maintaining an ideal setting for manufacturing, distribution, and industrial facilities within the City". As shown in Table 3.1-1, the project does not conflict with the six General Plan objectives outlined in Section 3.1.1 above.

Table 3.1-1
Consistency Analysis of General Plan Objectives

General Plan Objective	Consistency Analysis
Maintain and further develop an employment base in the San Gabriel Valley and the Los Angeles Metropolitan area;	The proposed project supports this policy. Through the continuation of operations, the Quemetco facility would provide an industrial employment base in the Los Angeles area, particularly for residents in the communities surrounding the City of Industry.
Initiate capital improvement programs and incentives to provide a full range of industry requirements;	The proposed project is not directly related to and does not conflict with this objective.
Accelerate and sustain a tax base able to support the growth potential of the area;	The proposed project will continue to provide taxes to the local area and does not conflict with this objective.
Develop a highway and street network that will serve all circulation desires with a minimum of conflict and inconvenience;	The proposed project is not directly related to this objective. The continuation of operations at the Quemetco facility will not create a new demand on existing circulation systems and does not preclude roadway improvements.
Perpetuate, and in some cases, instigate programs to beautify the City of Industry and to conserve its natural resources;	The proposed project is not directly related to this objective. The project does not preclude the conservation of natural resources in the City.
Encourage commercial, professional and service uses to support manufacturing, distribution and industrial uses.	The proposed project is not directly related to and does not conflict with this objective. The project does promote continued industrial use in the City.

Hacienda Heights Community General Plan

The continuation of an existing industrial use approximately ¼-mile from a residential area in the Hacienda Heights Community would not result in a new land use inconsistency. However, the existence of a policy prohibiting the residential uses in industrial areas implies that the Hacienda Heights Community is concerned over such land use compatibility issues. Given that the Quemetco facility is surrounded by industrial land uses and is located approximately ¼-mile from the nearest residence in the community, the continuation of the existing use is considered a less than significant land use impact. The effects of operations on the residential area are considered in remaining sections of this EIR.

<u>Conflict with a Habitat Conservation Plan or Natural Community Conservation Plan</u>

The project site is located within an urbanized area in the City of Industry that supports industrial and manufacturing facilities. The project site is not located within a Habitat Conservation Plan or Natural Community Conservation Plan area. No impact would result.

Closure and Post-Closure

The Closure Plan identifies the steps necessary to completely close the facility at the end of its intended operating life, and applies to the following regulated operating units: electric arc furnace; reverberatory furnace; battery wrecker; water treatment system; container storage area; containment building. It is anticipated that closure will commence when Quemetco issues a 180 notice of intent to close. Closure is estimated to take one year and the Post-Closure Plan would be in effect for 30 years following completion of closure.

The activities associated with closure and post-closure include decontamination of facility equipment and structures, sampling and analysis, and removal of all hazardous waste residue and contaminated soil. Groundwater monitoring and run-on and run-off control are included in both closure and post-closure activities. Following full closure of the facility, monitoring of the site will occur for thirty years. The ultimate use of the facility following closure and post-closure is unknown.

It is not possible to predict future land uses surrounding the project site during the closure and post-closure care period. If current land use designations remain in place, it is assumed that the project site and surrounding area would remain in industrial use. Thus, closure of the facility would not be expected to result in any significant land use or planning impacts.

3.1.4 <u>Mitigation Measures</u>

No significant impacts to land use and planning were identified. Therefore, no mitigation measures are required.

3.1.5 <u>Level of Significance After Mitigation</u>

Since no mitigation measures are required, impacts to land use and planning remain less than significant.

3.2 EARTH RESOURCES

3.2.1 Environmental Setting

3.2.1.1 Seismic Setting

Southern California in general has had an active seismic history and is subject to seismic events and seismic-related damage. Within Los Angeles County, there are over 50 active and potentially active fault segments and an unknown number of buried faults with the potential to cause damaging earthquakes (County of Los Angeles, 1990). The Sierra Madre fault zone, the Whittier fault, and the San Andreas fault are identified in the City of Industry Seismic and Safety Element as active faults located within or sufficiently close to the City of Industry to be considered a potential source of earthquake damage (City of Industry, 1975).

The Sierra Madre fault zone and its major branches, the Duarte and Lower Duarte fault, are considered active faults and pose a significant hazard to the City of Industry with respect to ground rupture. The fault system bounds the southern portion of the San Gabriel Mountains, extending from Cajon Pass on the east to San Fernando in the west. The Sierra Madre fault zone is located approximately 700 feet north of the base of the San Gabriel Hills at approximately 370 feet below the surface (City of Industry, 1975), approximately 8 to 9 miles from the project site (Quemetco Inc., 2000).

Figure 3.2-1, Area Geology, shows the southwestern end of the Walnut Creek fault, which runs along the base of the San Jose Hills for approximately 10 miles, is located approximately ½-mile east of the project site. The Handorf fault is the closest fault to the project site, located approximately 3,000 feet west of the site. There is some evidence that this is a Holocene fault since it displaces Quaternary alluvium and therefore may have been active in the Holocene epoch (Quemetco Inc., 2000). This fault would be considered active according to policies and criteria of the Division of Mines and Geology.

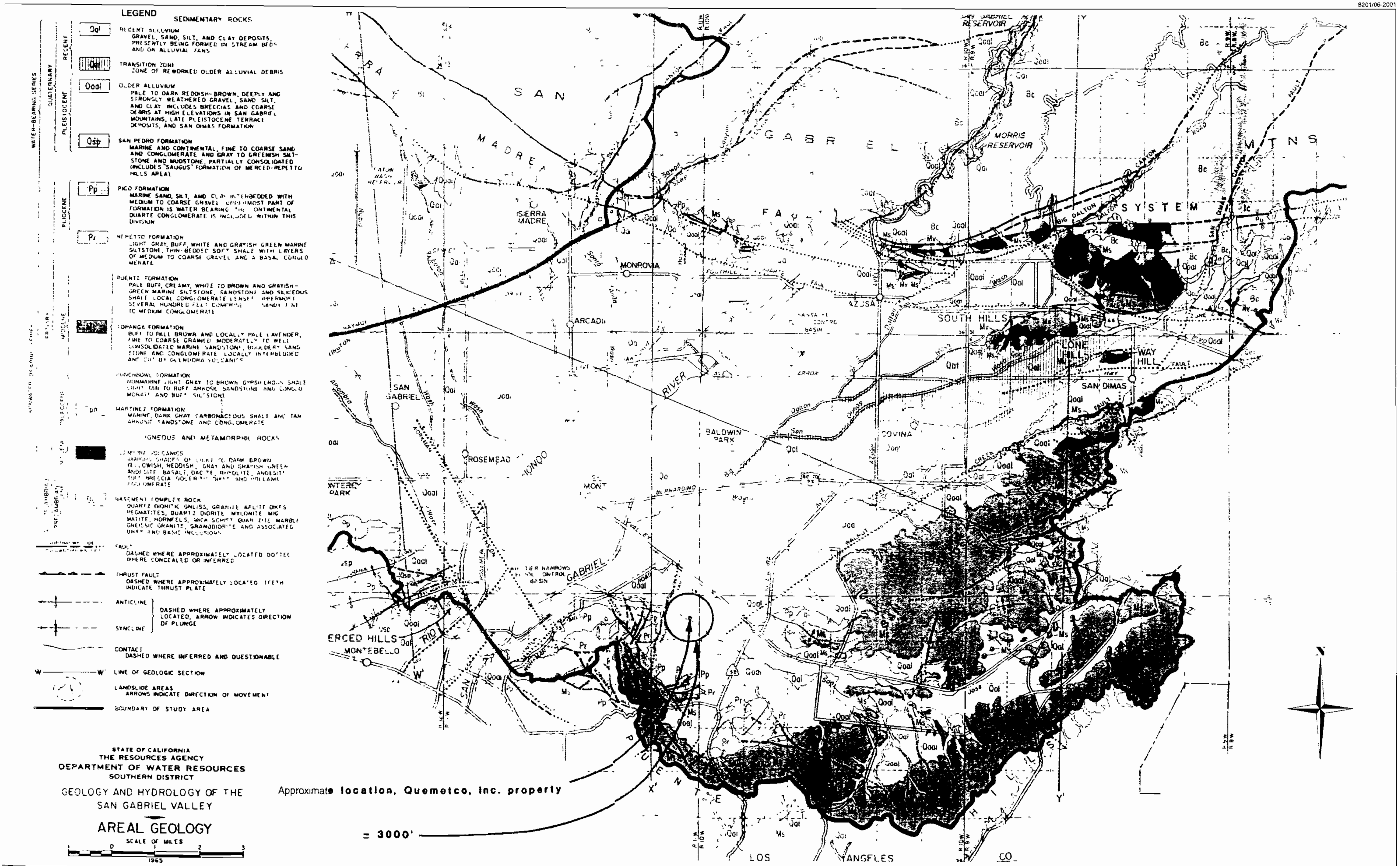
Two other faults, the Workman Hill and San Jose faults appear to offset the underlying basement as well as some of the alluvial water-bearing formations, and probably have some effect on regional groundwater flow. However, they do not appear to affect groundwater movement significantly (CH2MHill, 1993).

The Quemetco facility is not located in an Alquist-Priolo Special Studies Zone (Quemetco Inc., 2000).

3.2.1.2 Geology

The Quemetco facility is located in the Los Angeles Basin geologic province of southern California. The United States Geological Survey (USGS) divides the Los Angeles Basin into four blocks. The Quemetco facility is located in the northeastern block. The Northeastern block is situated between the Whittier fault zone and the base of the San Gabriel Mountains. This block is a deep synclinal basin (also referred to as the San Gabriel Groundwater Basin) that contains mostly marine Cenozoic sedimentary rocks, but also includes some thick Miocene volcanics in the east (Geology of California, 1975).

The site is underlain by surficial clays varying in thickness from approximately 3-20 feet of surficial clays, and silty clays. These surficial units generally show extremely variable thicknesses laterally and are interbedded with various sand and gravel stringers. These strata are underlain by sands and sandy gravels which also vary in thickness (approximately 1-30 feet) markedly over the Facility. Clays and silty clays with sand stringers occur below this zone varying from approximately 10 to 40 feet in thickness. A second sand and gravel zone occurs beneath those units. Marked changes in depths and thickness of units and rapid changes over space both laterally and vertically indicate relic channels, an atomizing superimposed braided streams, and overbank deposits typical of an ancient fluvial depositional environment.



AREA GEOLOGY
Figure 3.2-1

The hydrogeology underlying the site represents a multiple aquifer-units comprised of partially discontinuous higher permeability sand bodies matrixed with lower permeability mixed silts and clays. The aquifer system at the site is a series of elongate sand and silty sand bodies that appear to be separated vertically by silts and clays typical of an ancient fluvial depositional environment.

3.2.1.3 Topography

The project site is nearly level. Ground elevations at the Quemetco Facility range from approximately 304 feet above mean sea level (MSL) on the southwestern portion of the site to approximately 295 feet above MSL near San Jose Creek along the northern site boundary (ESC, 1993).

3.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse effect on geology and soils if it will:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i) 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. Refer to Division of Mines and Geology Special Publication 42.
  - ii) Strong seismic ground shaking
  - iii) Seismic-related ground failure, including liquefaction
  - iv) 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 (1994), creating substantial risks to life or property
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater

The following section, 3.2.3 Environmental Impacts, is organized to address each significance threshold.

3.2.3 Environmental Impacts

Operations

The proposed project is the continuation of an existing use. Therefore, the project would not result in any risks to the structures or employees on the project site related to earth resources.

Fault Rupture and Lateral Spreading

Fault rupture impacts occur when a structure sits on top of an active fault that displaces in two separate directions during an earthquake. No known faults traverse the project site. The nearest active fault is the Handorf fault, located approximately 3,000 feet west of the project site. The project site is not located in an Alquist-Priolo Special Study Zone. The potential for impacts to existing structures related to fault-rupture or lateral spreading is considered less than significant.

Seismic Groundshaking

Southern California in general is subject to seismic groundshaking and seismic-related damage. The Quemetco facility would be subject to the same potential damage as other facilities in the vicinity during a seismic event. The Quemetco facility was established in 1959. Since that time, many onsite facilities have been added or upgraded. All upgrades comply with the seismic design standards in effect at the time of construction.

The primary concern related to seismic groundshaking would be the accidental release of hazardous substances to the environment. All tanks storing hazardous substances meet certain design specifications to protect from accidental release. The design standards for tanks storing hazardous wastes on the Quemetco property are listed in Exhibit 1.9-1 of the Application. All areas where hazardous substances are handled or stored have secondary containment structures, such as berms. In addition, Quemetco has adopted emergency preparedness and emergency response plans and employee training programs to implement appropriate responses to emergencies, including seismic events. Impacts from seismic groundshaking are considered less than significant with the implementation of Quemecto's emergency plans.

Risks related to accidental releases of hazardous materials are also discussed in Sections 3.6 Risk of Upset, and 3.7 Human Health and Safety of this EIR.

Liquefaction

Liquefaction is the loss of soil strength caused by the temporary transformation of soil from a wet solid mass to a weaker state in which the material behaves as a dense liquid and is unable to support structures as a result of an earthquake. Shallow groundwater and uncompacted soils can result in liquefaction during a strong quake. The Division of Mines and Geology Seismic Hazard Zones Map indicates that the project site is within a potential liquefaction zone. This zone is defined as "Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required" (California Division of Mines and Geology, 1999). Quemetco has adopted emergency preparedness and emergency response plans to be implemented in the event of an emergency. As long as adherence to mitigation as defined in Public Resources Code 2693(c) is adhered to in the event of liquefaction onsite affecting any structures or facility components, impacts related to liquefaction would be considered less than significant.

Landslides

The project site and the immediate area are nearly level. The Division of Mines and Geology Seismic Hazard Zones Map indicates that the project site is not within a potential landslide zone. The closest designated landslide area is the Puente Hills located approximately one mile southwest of the project site (California Division of Mines and Geology, 1999). Therefore, slope instability resulting in landslides is not considered a potential hazard. Impacts are considered less than significant.

Soil Erosion

The continuation of an existing operation would not result in substantial soil erosion or loss of topsoil. Grading of the project site is not proposed. The project site was graded at the time of construction and is almost entirely asphalt-paved (Quemetco Inc, 2000). No impact would result.

Unstable Soil

Unstable soil is soil that would settle or collapse under the weight of a structure. In general, the first six inches to two feet of topsoil is considered unstable. The project site was graded at the time of development and fill material was applied and compacted to provide a foundation for onsite structures

(Quemetco Inc, 2000). Since the project is the continuation of an existing use, does not involve actions that would affect the stability of the soil, and since the project site is underlain by compacted fill, risks due to unstable soil are considered less than significant.

Subsidence

Subsidence is the lowering of the elevation of an area due to the withdrawal of liquids, such as groundwater. Project operations do not involve the withdrawal of groundwater, only the monitoring of groundwater quality. The potential for subsidence on the project site is considered low (Cogan, personal communication, 2001) and impacts are considered less than significant.

Expansive Soils

Subsurface soils on the project site consist mostly of clays, although a mix of sandy clays, silty clays, clays, gravelly clays, sandy silts, gravelly sands and sands are present. Clays tend to absorb water and expand and are considered expansive soils. The project would not result in any new risks related to expansive soils. In addition, the site has been graded, filled, compacted and paved. Risks related to expansive soils are considered less than significant.

Use of a Septic System

The project site is connected to the municipal sewer system and would not require the use of septic tanks. No impacts related to the installation of septic tanks would occur.

Closure and Post-Closure

The Closure Plan identifies the steps necessary to completely close the facility at the end of its intended operating life. Implementation of the Closure and Post-Closure Plans would result in removal of many of the onsite facilities. Closure would not result in removal of onsite pavement, as pavement is considered the final cover for the project site. No changes to the site would occur during implementation of the Closure and Post-Closure Plans that would result in significant impacts to earth resources.

3.2.4 Mitigation Measures

No significant impacts were identified. Therefore, mitigation measures are not required.

3.2.5 Levels of Significance After Mitigation

No mitigation measures are required. Impacts remain less than significant.

3.3 WATER RESOURCES AND WATER QUALITY

3.3.1 Environmental Setting

3.3.1.1 Surface Water

San Jose Creek is located adjacent to the project site's northern boundary. San Jose Creek is a concrete-lined channel that flows intermittently from east to west, and enters the San Gabriel River less than 3 miles west of the site. There are no surface water features on the project site. A man-made surface impoundment (pond) was previously located near the northern boundary of the project site. Quemetco closed the inactive surface impoundment as required by the EPA/DTSC in December of 1994.

The Quemetco facility is not within the 100-year floodplain or a Special Flood Hazard Area as defined by the Federal Emergency Management Agency (FEMA). The site is in Zone "C", defined as an area of minimal flooding. The San Jose Creek, located adjacent to the northern boundary of the site, is in Zone A, defined as the 100-year floodplain (Quemetco Inc., 2000).

Surface Water Containment

The project site is nearly level, but slopes slightly northward toward the San Jose Creek. The Quemetco facility is almost entirely asphalt-paved. The majority of surface water collected on the project site is redirected and contained through the use of berms and a series of sumps. Surface water is then treated and discharged to the sanitary sewer system. Quemetco collects and treats all surface waters from the processing and service areas onsite. Surface water runoff from outside of the processing and service areas, e.g. runoff from the parking lot, is not collected or treated.

All process areas are enclosed by concrete containment berms. Process waters, including electrolytic fluids from batteries, process/cooling water, containment building liquids, decontamination water, effluents from the furnace wet gas scrubbers and desulfurization filter, wash-down water and stormwater, are collected and drained or pumped to sumps and transfer tanks. All processing areas are sloped to drain rainwater to a yard sump. The water is collected at each sump and is either pumped to the facility's wastewater treatment system or separated into a rain storage tank for reuse in processing. The transfer of water to and from tanks and sumps is accomplished with automatic level controls that start and stop transfer pumps based on the water level. Main sumps have a high level alarm that will alert supervisors to prevent overfilling of the sumps. Supervising personnel may manually operate the transfer pumps if the level control system fails. In case of pump failure, the transfer tanks overflow to a containment area or sump.

The Battery Storage Area is an asphalt-paved pad with a four-inch berm around it that serves to contain any liquids that might accumulate in the area, and to prevent any run-on from adjacent areas of the facility. The loading and unloading areas for the Battery Storage Area are constructed of concrete or asphalt and washed down at least once a day. The hazardous wastes stored in the Battery Storage Area are maintained in the containers used for transport. Inspection of the condition of the Battery Storage Area is conducted Monday through Friday. Cracked or broken asphalt, leaking pallets, damaged batteries without caps, and storm water accumulation is noted during the inspection and corrective action is taken.

The area of the battery storage pad exceeds 9,700 square feet, and has a capacity of more than 25,500 gallons. The storage area has been calculated to contain the 24-hour accumulation of storm water from a 25-year storm, along with the volume of the largest container that could be stored (360 gallons). In the event of any spillage, or during periods of storm water accumulation, a pump is used to remove the liquids. The liquid is pumped to the Water Treatment Area for treatment prior to discharge.

Water Treatment System

The water storage and treatment facility is located in the northeastern corner of the property. The existing water treatment processes include a pH adjustment, oxidation, precipitation, flocculation, clarification and filtration, as described below.

Gases from the onsite furnace are scrubbed into a sodium carbonate wet scrubber. The effluent from the scrubber is pumped into three oxidation tanks operating on series. The sulfites are oxidized to sulfuric acid. The sulfuric acid is neutralized with slurry sodium carbonate. The oxidized water overflows into the equalization Tank No. 103. The oxidized water from the scrubber, the effluent from the filter presses at the Battery Wrecker system; the acid overflow from clarifiers at the Battery Wrecker and plant wash down waters are mixed into the equalization Tank No. 103. A pH of 2.0 to 3.0 is obtained with this process. The water from Tank No. 103 is pumped into 4 treatment tanks where the metals contained are co-precipitated with iron at different pH levels. Ferric sulfate is added into treatment Tank No. 1. The pH in treatment Tanks No. 1 and 2 and 3 are 3.0, 3.5, and 3.8 respectively and sodium carbonate is used to raise the pH. The pH in treatment Tanks No. 4 and 5 are 6.5 and 8.0; base solution is used to raise the pH. The co-precipitated water from treatment Tank No. 5 is pumped into a splitter box where anionic polymer is added to flocculate the water. The water is split in 4 clarifiers that operate parallel. The overflow drains into sand filter feed tanks. The sludge is pumped into two filter presses; the effluent from the press is pumped to treatment Tank No. 5. The resulting iron cake is recycled at the Battery Wrecker. The clarifiers' overflow water is pumped into four garnet-anthracite pressure filters. The filtrate is stored in two product solution tanks. The backwash water from the sand filters is pumped into Tank No. 103. The new product solution tanks are operated to dump the treated water in a batch system. Each tank is filled and the treated water is analyzed to ensure compliance with current regulations. If the treated water is out of discharge limits, it is pumped back to equalization Tank No. 103. Each product solution tank has a pH probe installed at the bottom of the tank, to continuously record the pH (east and west pH meter and recorder). Both tanks have a mixer to ensure homogeneous water. The sludge of the clarifiers is drained to the iron recovery system.

All treated water is discharged to the sanitary sewer system under an Industrial Wastewater Discharge Permit (No. 3467 R-3), dated December 19th, 1994, in accordance with 40 CFR, Part 421, issued by the Los Angeles County Sanitation District (LACSD). An application to renew the permit was submitted in December of 1998 (Quemetco Inc., 2000).

Water Discharge Permits

The Industrial Wastewater Discharge Permit issued by the LACSD allows 270,000 gallons per day of treated wastewater to be discharged to the sewer, complying with Effluent Limitations for Non-Ferrous Metals Manufacturing, Secondary Lead (40CFR 421 Part M). This permit is included as Exhibit 1.8-3 in Volume II of the Application. It includes the following wastewater-producing operations:

- battery cracking
- battery case classification
- desulfurization
- casting contact cooling water
- flue gas scrubbing
- cooling tower blow down
- facility washdown
- trucking
- respirator washing
- contaminated stormwater runoff

According to the permit, anticipated constituents of discharged wastewater include lead, nickel, antimony, zinc, dissolved solids and sulfate. The permit establishes Maximum Contamination Levels (MCLs) for antimony, arsenic, lead, and zinc for the Quemetco facility and describes the LACSD standards for maximum concentrations allowed for toxic materials. Thirty-one conditions are set forth in the permit that must be abided to by Quemetco. Discharges from the Quemetco facility must comply with the standards established by these conditions. Non-compliance will result in an enforcement action and an immediate corrective action.

Quarterly wastewater discharge sampling and reporting is required by the permit. The LACSD permit also establishes the legal water discharge sampling point for the Quemetco facility. In accordance with this permit, samples are automatically collected by a sample weir on a flow proportioned basis of approximately 150 milliliter (ml) per 2,000 gallons discharged. These aliquots are combined, packaged, and shipped to an LACSD-approved laboratory for analysis (Quemetco Inc., 2000).

Quemetco is also listed as permittee under the Statewide General Industrial Activities Stormwater Discharge Permit included as Exhibit 1.8-4 in Volume II of the Application. Amendments to the Clean Water Act (CWA) in November of 1990 established regulations which require that stormwater associated with industrial activity that discharges either directly to surface waters, or indirectly, through municipal storm sewers, must be regulated by the State Water Resources Control Board (SWRCB). The SWRCB issued a statewide general permit that applies to all industrial stormwater discharges and requires dischargers to implement practices to prevent stormwater pollution. Industrial stormwater discharges include, but are not limited to, discharges from industrial plant yards, immediate access roads traveled by carriers of materials related to the industrial plant, and where industrial machinery is exposed to stormwater. This permit requires dischargers to comply with water quality standards established in the CWA and to 1) eliminate most non-stormwater discharges to stormwater sewer systems, 2) develop and implement a stormwater pollution prevention plan (SWPPP), and 3) perform monitoring of discharges to stormwater sewer systems (Quemetco Inc., 2000).

Surface Water Quality

Quemetco, Inc. implements an existing SWPPP originally prepared and implemented under the now expired statewide General Permit (No. 91-013-DWQ) and amended under the replacement General Permit (No. 9703-DWQ) as stated in the Notice of Intent (NOI) submitted by Quemetco on June 20, 1997. The SWPPP is required by the SWRCB to: identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water and authorized non-storm water discharges; and to identify and implement site specific Best Management Practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges.

Table 3.3-1 identifies the industrial activities, potential pollutant sources, and potential pollutants associated with Quemetco's operations. Four facility areas are identified in the SWPPP as potential sources of pollutants these areas are:

- Material handling areas;
- Tracking of materials from process to non-process areas;
- Unloading and loading operations at the railroad; and
- Stack emissions from baghouse and HEPA Units.

Table 3.3-1
Summary of Industrial Activities, Potential Pollutant Sources, and Potential Pollutants

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Battery Wrecker	Wrecking batteries	Dust and particulates from batteries Rainfall collecting in wrecker area	Lead	➢ Swept and washed every shift ➢ Rain water is collected into dedicated sump and pumped to water treatment plant prior to discharge
Slag Unloading Dock	Bulk unloading operations	Dust and particulates from slag Rainfall collecting in dock area	Lead	➢ Dock is covered with tarps to prevent wind from dispersing particulates ➢ Swept every shift ➢ Rain water is collected into dedicated sump and pumped to water treatment plant prior to discharge
Refinery Building	Lead reclamation	Dust and particulates from lead processing	Lead, coke fines, metallic dusts	➢ Building maintained under negative pressure ➢ Dust and particulates collected in filters and baghouses ➢ Alarm system in place in case of baghouse rupture or failure ➢ Area cleaned and swept every shift ➢ Onsite vehicles decontaminated before being allowed to leave ➢ Employee's protective equipment decontaminated before being allowed to leave area
Raw Material Warehouses (Zinc, Finished Goods Warehouse, Brick Warehouse	Material handling	Dust and particulates	Metallic dusts	➢ Containment berm around zinc warehouse ➢ Area cleaned and swept every shift ➢ Onsite vehicles decontaminated before being allowed to leave ➢ Employee's protective equipment decontaminated before being allowed to leave area
Paved Non-Process Areas	Vehicle movements	Dust and particulates	Coke fines, metallic dusts tracked from process areas	➢ Onsite vehicles decontaminated before being allowed to leave ➢ Area swept and cleaned every shift ➢ Rain water is collected into dedicated sumps and pumped to water treatment plant prior to discharge
Stacks from Baghouses	Dust and particulate collection	Particulates escaping	Metal particulates	➢ Alarm system in place in case of baghouse rupture or failure

The following BMPs are implemented to reduce pollutants associated with each source. For additional information on each BMP, please refer to the SWPPP on file with Quemetco and the DTSC.

Non Structural BMPs

1. Good Housekeeping
2. Preventative Maintenance
3. Spill Response
4. Material Handling and Storage
5. Employee Training
6. Waste Handling/Recycling
7. Recordkeeping and Internal Reporting
8. Erosion Control and Site Stabilization
9. Inspections
10. Quality Assurance

Structural BMPs

11. Overhead Coverage
12. Control Devices
13. Secondary Containment Structures
14. Treatment

In compliance with the SWPPP, the Quemetco SWPPP Team conducts an Annual Comprehensive Site Compliance Evaluation. During this evaluation, the team conducts a review of all visual observation records, inspection records, sampling and analysis results. A visual inspection of all potential pollutant sources is also conducted to ensure that non-storm water is not discharged into storm outfalls and that all BMPs are in practice. All BMPs are reviewed at least once annually, any deficiencies are corrected as soon as possible. An annual evaluation report is prepared which includes all results of the Annual Comprehensive Site Compliance Evaluation and all required forms.

3.3.1.2 Groundwater

The project site is situated within the Puente Valley, which forms the southeastern portion of the San Gabriel Valley Groundwater Basin. Puente Valley is a sub-basin to the San Gabriel Valley Groundwater Basin, with groundwater flowing northward into the main basin. The Puente Valley is bordered to the north by the San Jose Hills and to the south by the Puente Hills.

A groundwater contour map, prepared by the Los Angeles County Department of Public Works (LACDPW), for data from fall 1989 shows the groundwater elevation of the regional aquifer in the vicinity of the site to be about 250 feet above mean sea level (msl). Historical groundwater elevations in the vicinity have fluctuated from 295 feet msl in 1944, to 260 feet msl in 1960, to 275 feet msl in 1982. Between 1982 and 1987, the depth to groundwater within shallow observation wells located on the project site varied from 14 to 49 feet. In 1991 and 1992, the depth to groundwater within the deeper water bearing zone varied from 62 to 70 feet (ESC, 1993).

The groundwater flow appears to be northward, toward but not into the San Jose Creek. The potential for flow from the creek into the groundwater is high, but the potential for flow from the groundwater into the creek is very low (Quemetco Inc., 2000).

Quemetco implemented a groundwater monitoring program in 1994, in accordance with DTSC requirements as a component of the post-closure activities for the former surface impoundment. Quemetco closed the inactive surface impoundment as required by the EPA/DTSC in December of 1994 and implemented a "clean closure" program, which required excavation, sampling and disposal of subgrade materials from the inactive impoundment, and the construction of a concrete cover. Quemetco has monitored the groundwater in compliance with 22 CCR 66264.99 since that time. During each sampling event, groundwater levels, purge volume, flow rates, pH, specific conductivity, temperature, and turbidity are recorded. Samples are taken and tested for all constituents of concern (COC), listed in Table 3.3-2. Quemetco must comply with the Water Quality Protection Standards (WQPS) listed in Table 3.3-2 pursuant to EPA/DTSC requirements, as measured down-gradient of the former surface impoundment area (also known as the Point of Compliance [POC]). Verified exceedance of the WQPS at the POC triggers a monitoring, evaluation, and corrective action response in accordance with 22 CCR 66264.99, et seq. Quemetco submits a quarterly report and an annual report to the DTSC that contains a summary of the groundwater sampling data (Quemetco Inc., 2000).

The groundwater monitoring system monitors two water-bearing zones (WBZs). The shallow zone contains sand and gravel and spans from a depth of 18 to 50 feet. The deeper zone also consists of sands and gravels and is encountered at a depth of 50 feet. Observations indicate that there may be some connection between the two WBZs but that a low-permeability unit is present between the upper and lower WBZs (Quemetco Inc., 2000).

Fifteen groundwater monitoring wells (MW-1 through MW-15) were installed on the project site to monitor groundwater quality. Figure 3.3-1 shows the location of existing groundwater monitoring wells. Eight of the monitoring wells (MW-1 through MW-8) were set in the shallow geologic unit, in a perched zone that occasionally contained groundwater prior to the early 1990's. The shallow zone now consistently contains water. These wells are sampled quarterly, although they were not previously part of the RCRA groundwater-monitoring program for the former surface impoundment. MW-5 through MW-8 were installed in 1987. MW-6 was damaged and abandoned on March 5th 1993. Therefore, seven wells currently sample the shallow WBZ. MW-2 and MW-5 are used to detect releases from the former surface impoundment. MW-2 is up-gradient of the former surface impoundment, while MW-5 is downgradient at the POC (Quemetco Inc., 2000).

Five wells (MW-9 through MW-13) were set in the deeper hydrostratigraphic unit and constituted the monitoring system for the former surface impoundment. These wells penetrate the water table aquifer to a total depth of approximately 80 feet below ground surface (bgs). MW-9 through MW-11 were installed in 1991 and MW-12 and MW-13 were installed in 1993. MW-9 and MW-10 are located upgradient of the POC, while MW-11 through MW-13 are located down-gradient. The downgradient wells are located near the northern property boundary near the adjacent San Jose Creek (Quemetco Inc., 2000).

MW-14 and MW-15, installed in 1993 and located in the former raw materials storage area, temporarily monitored water quality in preparation for the raw materials storage area interim remedial action. These wells were abandoned on December 7th, 1994 (Quemetco Inc., 2000).

Groundwater Quality

As described above, a groundwater monitoring program, included as Exhibit 6.1-1 in Volume III of the Application, was implemented in 1994 and is ongoing on the project site as part of the post-closure requirements for the former surface impoundment. Quemetco is in the "Evaluation Monitoring Program" required under 22CCR 66264.99 and will remain so until Water Quality Protection Standards (WQPS)[1] are met in accordance with permit conditions. See Table 3.3-2 for a list of the WQPS.

[1] WQPS are the higher of the primary and secondary MCLs as listed in 22CCR 64431 et seq.

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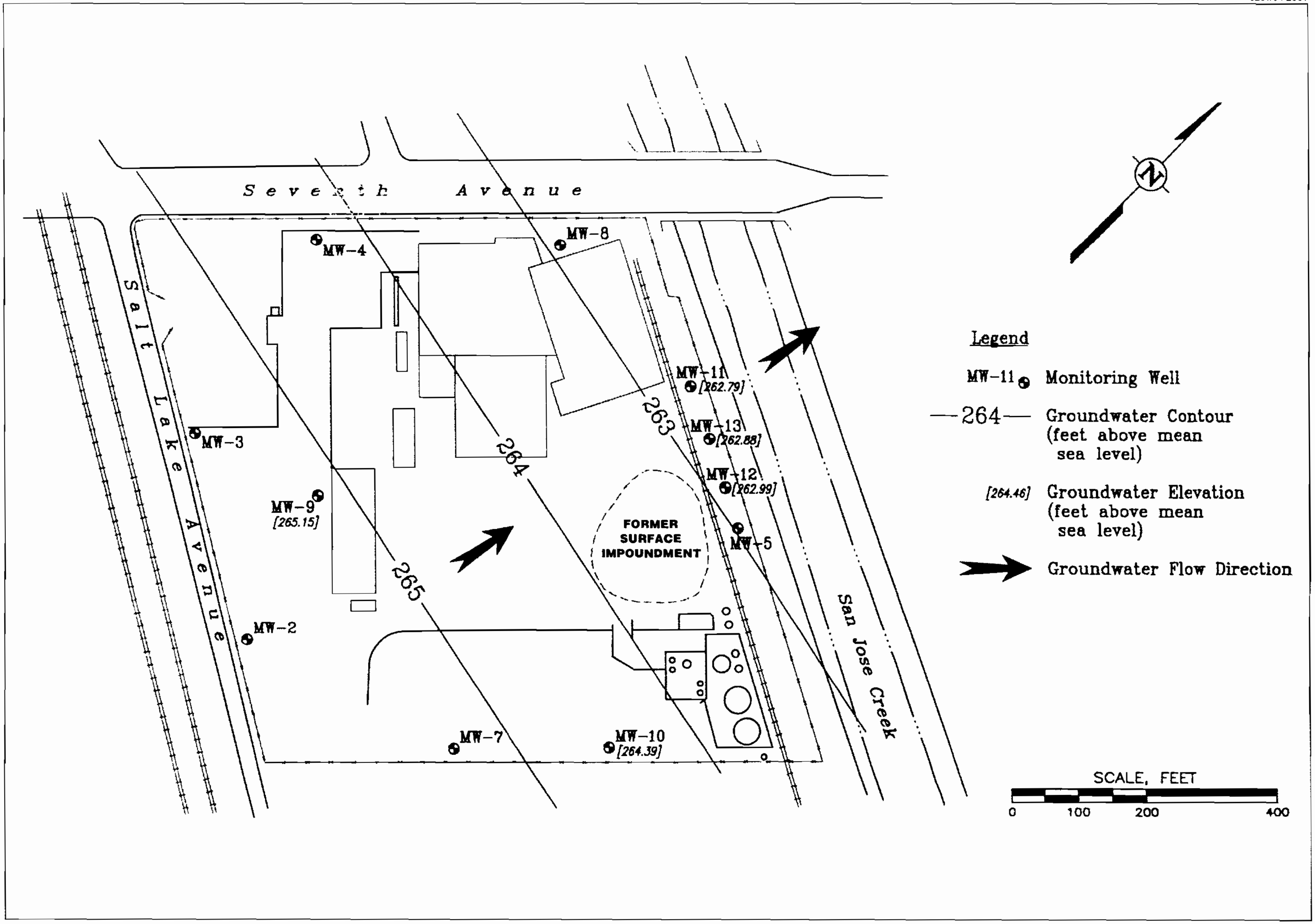

Chambers Group

Source: Environmental Strategies Corporation, 2000

GROUNDWATER MONITORING WELL LOCATIONS
Figure 3.3-1

Table 3.3-2
Water Quality Protection Standards
Summary of Maximum Contaminant Levels for Drinking Water in California

Parameter/Constituent	Limit of Quantification (mg/l)	MCL (mg/l) (a)
Chloride	0.10	250-500-600 (b)
Iron	0.10	0.3
Manganese	0.01	0.05
Magnesium	0.20	Non
Sulfate	1.00	250-500-600 (b)
Arsenic	0.005	0.05
Barium	0.01	1
Cadmium	0.0005	0.01
Chromium (total)	0.0010	0.05
Lead	0.0050	0.05 (c)
Mercury	0.0005	0.002
Selenium	0.005	0.01
Copper	0.02	1
Zinc	0.02	5
Silver	0.01	0.05
Nitrate as N	0.10	10

Source: Exhibit 6.1.2 in Volume III of the Application, Quemetco, Inc., 2000.
(a) California Drinking Water Standards
(b) Recommended-Upper-Short Term
(c) Former MCL; there is currently no MCL for lead

The most recent sampling event was completed in February of 2000. Results show that none of the primary constituents of concern (arsenic, cadmium, and lead) were above primary[2] MCLs for samples from any of the monitoring wells on the project site. The MCL for selenium was exceeded in samples from shallow wells MW-4 through MW-8. The MCL for nitrate was exceeded in all wells except for MW-1 and MW-2. The secondary MCLs for iron, manganese or sulfate were exceeded in some samples from shallow water wells. Table 3.3-3 summarizes WQPS exceedances by well number for the February 2000 sampling event. It is noted that these wells are not part of the RCRA monitoring system. Also, these shallow monitoring wells (MW-1 through MW-4) were constructed with a casing and filter pack that is no longer appropriate to yield samples representative of aquifer water quality. Therefore, sample results from wells MW-1 through MW-4 are not considered valid and these wells are no longer sampled.

No samples collected from the wells in the RCRA groundwater monitoring system (MW-9 through MW-13) contained any constituents above primary MCLs. The secondary MCL for iron was exceeded in the total metal sample from MW-12. However, iron is not a constituent of concern.

In addition, statistical analyses of the groundwater data have been conducted annually in accordance with requirements outlined in 22 CCR Chapter 15, Article 6, Sections 66265.97(7) through 66265.97(9). Analysis of variance (ANOVA) indicates that lead concentrations in the compliance wells have never exceeded the background lead levels. The 99% confidence levels indicate that the MCL for lead has never been significantly exceeded in any of the wells. In addition, the MCLs for arsenic and cadmium have never been exceeded in any samples from the RCRA monitoring wells. Hence, there is no statistically significant evidence of a release from the former surface impoundment at the Quemetco, Inc. facility.

[2] Primary MCL's are established by the California Department of Health as drinking water standards.

Table 3.3-3
February 2000 Groundwater Monitoring Results

Monitoring Well Number	Samples Exceed MCLs	Type of Exceedance
MW-1	Yes	Iron, Manganese
MW-2	Yes	Iron, Manganese
MW-3	Yes	Nitrate
MW-4	Yes	Iron, Manganese, Selenium, Nitrate, Sulfate
MW-5	Yes	Iron, Selenium, Nitrate, Sulfate
MW-7	Yes	Iron, Manganese, Selenium, Nitrate
MW-8	Yes	Iron, Manganese, Selenium, Nitrate, Sulfate
MW-9	Yes	Nitrate
MW-10	Yes	Nitrate
MW-11	Yes	Nitrate
MW-12	Yes	Iron, Nitrate
MW-13	Yes	Nitrate
Source: Exhibit 6.1-2 in Volume III of the Application		

The Quemetco facility is regulated by the DTSC who will continue to work with Quemetco in complying with groundwater quality standards. Quemetco is in the Evaluation Monitoring Program required by the EPA/DTSC and will continue to be so until the WQPS are met.

3.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse effect on water resources and water quality if it will:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Otherwise substantially degrade water quality
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam
- Inundation by seiche, tsunami or mudflow

The following section, 3.3.3 Environmental Impacts, is organized to address each significance threshold.

3.3.3 Environmental Impacts

Operations

Violate Waste Discharge Requirements

The Quemetco facility is operating in compliance with conditions outlined in the Industrial Wastewater Discharge Permit and the General Industrial Activities Stormwater Permit, described above. Quemetco is permitted to discharge approximately 270,000 gallons of wastewater to the sewer system per day, with a peak flow rate of 370 gallons per minute. The wastewater is treated before it is discharged. The treatment process has been approved by the LACSD. Quemetco also participates in a required self-monitoring program in which wastewater flow and contaminant levels are measured on a quarterly basis. The most recent results of the monitoring program confirm that constituents found in the wastewater discharged from the Quemetco facility are presently below permitted levels. The Quemetco facility is, therefore, in compliance with its wastewater discharge permit and would not contribute to violations waste discharge requirements. Quemetco is also required to operate in compliance with the General Industrial Activities Stormwater Permit. Quemetco is required to and has implemented a SWPPP, and developed measures, described below, that substantially reduce non-stormwater discharge to the stormwater system. No significant adverse impacts would result.

Violate Water Quality Standards, Otherwise Degrade Water Quality or Result in Polluted Runoff

Groundwater Quality

Continued operations at the Quemetco facility would not result in a change in existing groundwater quality. Groundwater quality would continue to be monitored and reported to the DTSC, as described in existing setting (Section 3.3.1). The February 2000 data shows that groundwater exceeded secondary MCL's in multiple locations on the project site. Continuation of operations at the facility would result in violations of secondary groundwater quality standards until corrective action is taken and completed. Non-compliance with WQPS is considered a significant impact.

Surface Water Quality

Continued operations at the Quemetco facility would not change existing surface water quality. Sheet full runoff is monitored and reported to the LACSD and the SWQCB. Quemetco would continue to control polluted runoff from entering the stormwater system through the use of the containment structures and onsite water treatment facility described in Section 3.3.1. Quemetco collects and treats all surface waters from the processing and service areas onsite. Thus, adequate design features and operational controls are in place to reduce the potential for polluted runoff to enter the stormwater system and degrade water quality, to the extent feasible.

Increase Runoff and Result in Flooding

No physical changes to the facility that would result in increased runoff or potential flooding are proposed. As discussed above, most surface water from the project site is collected and discharged through the municipal sewer system in accordance with an LACSD Industrial Wastewater Discharge Permit. The collection and treatment system is designed to withstand a 24-hour maximum probable storm event. Runoff from the portions of the site that are not bermed is expected to be minimal, compared to the capacity of the stormwater system. Impacts to stormwater system capacity from the continuation of operations on the project site are considered less than significant, as the project would not result in an increase in runoff or the potential for flooding.

Alter the Existing Drainage Pattern

No impervious surfaces or structures that would affect the onsite drainage pattern are proposed as part of this project. No impacts to the existing drainage pattern are anticipated.

Groundwater Extraction and Recharge

Operations at the Quemetco facility do not involve the extraction of groundwater. Twelve groundwater-monitoring wells are currently located on the project site and used to sample groundwater quarterly. The facility does not operate injection wells, nor is it located near drinking water wells. The continuation of Quemetco operations would have less than significant impacts related to the depletion of groundwater supplies. In addition, the proposed project does not involve physical changes to the project site, such as grading, landscaping or paving, which would interfere with groundwater recharge. No additional impervious services are proposed. Therefore, no impacts to groundwater recharge would occur as a result of the project.

100-Year Flood Hazard Area

The project site is not located within the 100-year floodplain or within a Special Flood Hazard Area as defined by FEMA. In addition, the project does not involve the construction of new structures. No impacts related to flood flow would occur. The San Jose Creek, a concrete-lined channel located adjacent to the property, is the only surface water feature within one mile of the project site. Risks related to this feature are considered low due to the intermittent nature of the creek and the topography of the site. Impacts are considered less than significant.

Seiche, Tsunami and Mudflow

There are no sources of seiche, tsunami or mudflow in the vicinity of the project site. The project site and the surrounding area is nearly level, and is located approximately one mile from the nearest potential landslide area, the Puente Hills. No significant impacts would result.

Closure and Post-Closure

The Closure Plan identifies the steps necessary to completely close the facility at the end of its intended operating life. The activities associated with closure and post-closure of the facility include decontamination of equipment and structures, sampling and analysis, and removal of all hazardous waste residue and contaminated soil. Groundwater monitoring and run-on and run-off control are included in both closure and post-closure activities. Following full closure of the facility, monitoring of the site will occur for thirty years. The ultimate use of the land following closure and post-closure is unknown, but can be assumed to remain as an industrial use.

Because the onsite processing facilities will be removed as part of closure, no new sources of groundwater or surface water contamination will result. Monitoring of groundwater and run-on and run-off control required as part of the Closure and Post-Closure Plans will determine whether residual substances occur onsite which would affect water quality. With implementation of cleanup procedures presented with the Closure Plan, no significant impacts to water quality would be expected.

3.3.4 Mitigation Measures

Non-compliance with established water quality standards for groundwater resulting from continued operations at the Quemetco facility is considered a significant impact. The Quemetco facility is already regulated by the EPA/DTSC and the LACSD and SWRCB. Quemetco is in the "Evaluation Monitoring Program" required under 22 CCR 66264-99 and shall remain so until WQPS are met in accordance with permit conditions. Since these regulatory agencies already require corrective action and continued monitoring of water quality on the project site, no other mitigation measures are required.

3.3.5 Levels of Significance After Mitigation

No mitigation measures beyond those already required by existing agencies regulating water quality on the project site are available. Compliance with these corrective action measures to meet WQPS will eventually reduce impacts to less than significant levels. Until such time that WQPS are met, impacts remain significant and unavoidable.

3.4 AIR QUALITY

3.4.1 Environmental Setting

The proposed project consists of the continuation of and existing lead recovery operations located in the City of Industry. The entire project area is located within the South Coast Air Basin (SCAB). The SCAB is a 6,600-square-mile area that encompasses Los Angeles County, Orange County, the non-desert portions of Riverside County, and the western portion of San Bernardino County. The entire SCAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

The following characterization of the baseline atmospheric environment includes an evaluation of the ambient air quality and applicable rules, regulations and standards for the area. Because the Proposed Project has the ability to release gaseous emissions of criteria pollutants and dust into the ambient air, it falls under the ambient air quality standards promulgated on the local, state and federal levels. The included analysis was prepared in accordance with methodology and standards included in the SCAQMD's *CEQA Air Quality Handbook* (*Handbook*).

3.4.1.1 Climatic Characteristics

The SCAB is comprised of a coastal plain with connecting broad valleys and low hills bounded by the Pacific Ocean to the southwest, the San Gabriel Mountains to the north, the Santa Ana Mountains to the south and the San Bernardino and San Jacinto Mountains to the east. The region lies in the semipermanent, high-pressure climatic condition of the eastern Pacific zone. Meteorological conditions are important to air quality because atmospheric parameters, including wind speed and direction, temperature, temperature inversions and topography, significantly influence air contaminant dispersion and ground-level concentrations.

Climate

The distinctive climate of the SCAB is determined by terrain and geographical location. The SCAB has a Mediterranean climate characterized by mild winters when most rainfall occurs, and warm, dry summers. The most important climatic and meteorological characteristics influencing air quality in the project area are the persistent temperature inversions, predominance of onshore winds in Los Angeles County, mountain ridge and valley topography, and prevalent sunlight.

The mountains that frame the SCAB range in elevation from approximately 6,000 to 11,500 feet above mean sea level (MSL). The topography of the SCAB is a major contributing factor to the observed air quality and air pollution levels. During the daytime, prevailing coastal winds blow inland, and air masses subsequently become blocked by the surrounding mountain ranges. As a result, the restricted airflow makes the SCAB highly susceptible to air pollutant accumulation. With very light average wind speed, the air basin has a limited capability to disperse air contaminants horizontally.

Temperature

With the exception of mountain locations, the annual average temperature (averaging 62°F) within the SCAB varies little throughout the 6,600-square-mile air basin; however, with a less pronounced oceanic influence, the eastern portion shows greater variability in annual minimum and maximum temperatures. The City of San Bernardino, for example, has an annual average temperature range from 37 to 97°F, while the City of Santa Monica has an annual range between 47 to 75°F. Pomona, the most proximate location where temperature is monitored by the SCAQMD, has an average temperature of 62°F with an annual average monthly range from 38 to 91°F. All portions of the SCAB have had recorded temperatures well above 100°F in recent years. January is usually noted as the coldest month, and July and August are usually the hottest months of the year.

Precipitation

Practically all of the annual rainfall in the SCAB occurs between the months of November and April. Summer rainfall normally is restricted to widely scattered thundershowers near the coast and slightly heavier shower activity in the air basin's easterly area and over the mountains. Annual average rainfall varies from 9 inches in Riverside to 14 inches in downtown Los Angeles, but higher amounts are measured at local foothill locations. Covina, the most proximate monitored city, has an average rainfall of 17.37 inches. Monthly and yearly rainfall totals are extremely variable. Rainy days vary from 5 to 10 percent in the SCAB with the frequency of such days being higher near the coast.

Humidity

Although the SCAB has a semiarid climate, the air near the ground surface is surprisingly moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the air basin by offshore winds, this shallow marine layer is an important modifier of the Basin's climate. Periods with heavy fog are frequent, and low stratus clouds (sometimes referred to as "high fog") are a characteristic climate feature. Humidity is typically at a minimum during the winter months and peaks in the months of September and October. Annual average relative humidity is about 70 percent at the coast and approximately 57 percent in the eastern part of the SCAB. The Ontario area is the most proximate area where humidity is recorded and has an average humidity of about 65 percent.

Wind

With very light average wind speeds, the SCAB's atmosphere has a limited capability to disperse air contaminants horizontally. For example, wind speeds in downtown Los Angeles average about 5.7 miles per hour (mph) with little seasonal variation. Winds in the neighboring City of Walnut are predominantly out of the south with an average speed of 6.1 mph. Spring and summer wind speeds average slightly higher than fall and winter wind speeds. Inland areas record slightly lower wind speeds than downtown Los Angeles, while coastal wind speeds average about 2 mph higher than downtown Los Angeles. The dominant daily wind pattern is a daytime sea breeze and a nighttime land breeze. This regime is broken only by occasional winter storms and infrequent strong northeasterly Santa Ana flows from the mountains and deserts north of the SCAB.

On most spring and early summer days, the daily air pollutants produced within the SCAB are moved out of the air basin through mountain passes or are lifted upward by the warm, vertical currents produced by the heating of mountain slopes. In those seasons, pollutants within the SCAB are dispersed and transported (often to a distance of 60 miles or more) by ocean air currents during the afternoon. From late summer through the winter months, this flushing is less pronounced because of lighter wind speeds and the earlier appearance of offshore winds.

It should be noted that the overall average wind speed does not preclude the presence of very low or high wind speeds, especially during Santa Ana conditions. These Santa Ana conditions, which are prevalent in Southern California from the fall through spring, with an average five to ten occurrences per year, can create strong southern-flowing winds.

Cloudiness

The presence of clouds is a contributing factor to air quality, because of the necessary role of sunshine in the process of producing photochemical smog. Due to the persistent low inversions and cool coastal ocean water, morning fog and low stratus clouds are common in coastal areas, with decreasing concentrations inland. On average, there are 187 clear days (i.e., 0 to 30 percent of the sky obscured by clouds), 102 partly cloudy days (i.e., 40 to 70 percent cloud cover), and 76 cloudy days (i.e., 80 percent to full cloud cover). Cloudiness is slightly less in the eastern portions of the air basin and about 25 percent greater along the coast.

Inversions

The vertical dispersion of air pollutants in the SCAB is hampered by the presence of a persistent temperature inversion in the layers of the atmosphere near the surface of the earth. Because of expansional cooling, temperatures usually decrease with altitude. A reversal of this atmosphere condition, where temperature increases with altitude, is termed an inversion. Inversions can exist at the surface or at any height above the ground. The height of the base of the inversion at any given time is known as the "mixing height."

The mixing height can change under conditions when the top of the inversion does not change. Usually, inversions are lower before sunrise than during the daylight hours. Mixing heights normally increase as the day progresses as the sun warms the ground, which in turn warms the surface air layer. As this heating continues, the temperature of the surface layer approaches the potential temperature of the base of the inversion. When these temperatures become equal, the inversion layer begins to erode at its lower edge. If enough warming takes place, the inversion layer becomes weaker and finally "breaks." The surface air layers can then mix upward without limit. This phenomenon is frequently observed in the middle to late afternoon on hot summer days when the smog appears to clear up suddenly. Winter inversions frequently break up by midmorning, thereby preventing contaminant buildup during these periods.

The net input of pollutants in the atmosphere from both mobile and stationary emission sources varies little by season. Pollutants enter the surface air layers and can mix with less contaminated air from anywhere below the inversion base. The contaminants in the surface layer tend to diffuse and form a relatively uniform mixture (in some cases higher concentrations exist immediately below the inversion base) all the way up to the mixing height. These contaminants cannot, however, rise through the inversion. As a result, these air pollutants become more and more concentrated unless the inversion layer lifts or is broken or unless surface winds are strong enough to disperse the pollutants horizontally. The combination of low wind speeds and low inversions produces the greatest concentration of pollutants. On days of no inversion or when winds average over 15 mph, there is little likelihood of any significant smog effects.

In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons (HC) and oxides of nitrogen, thereby forming photochemical smog. In the winter, the greatest pollution problems are carbon monoxide (CO) and oxides of nitrogen because of extremely low inversions and air stagnation during the late night and morning hours. CO is not as great a problem in summer because inversions are not as low and intense in the surface boundary layer (within 100 feet of the ground) and because horizontal ventilation is better in summer than during the winter. The higher summer inversions, however, are typically stronger and last until much later in the day.

Along the Southern California coast, surface air temperatures are relatively cool. The resultant shallow layer of cool air at the surface, coupled with warm, dry subsiding air from aloft produces early morning inversions on about 87 percent of the days. The SCAB-wide average occurrence of inversions at the ground surface is 11 days per month. The averages vary from 2 days in June to 22 days in December and January. Higher inversions, but less than 2,500 feet above sea level, occur 22 days each month on an average of 25 days in June and July to 4 days in December and January. Restricted maximum mixing heights of 3,500 feet above MSL or less average 191 days each year.

The potential for high concentrations varies seasonally for many contaminants. During late spring, summer, and early fall, light winds, low mixing heights, and brilliant sunshine combine to produce conditions favorable for the maximum production of photochemical oxidants, mainly ozone (O_3). During the spring and summer, when fairly deep marine layers are frequently found in the SCAB, sulfate concentrations are at their peak. When strong inversions are formed on winter nights and couple with near-calm winds, CO from automobile exhausts becomes highly concentrated. The highest yearly values for CO are generally measured during November, December, January and February.

3.4.1.2 Baseline Air Quality

The site is located within Source/Receptor Area (SRA) 10, one of 30 areas under SCAQMD jurisdiction. The communities within an SRA are expected to have similar climatology and subsequently, similar ambient air pollutant concentrations.

The Pomona/Walnut air monitoring station, located in SRA 10, monitors four criteria pollutants: carbon monoxide, ozone, nitrogen dioxide, and suspended particulates. Sulfur dioxide and sulfate levels are not monitored at this station, but will be monitored in the future if local levels of these pollutants become a concern to the SCAQMD or the CARB.

Air quality trends identified from data collected at the Pomona/Walnut Valley air quality monitoring station between 1995 and 1999 are discussed below. From the ambient air quality data (Table 3.4-1), it can be seen that carbon monoxide and nitrogen dioxide levels have not equaled or exceeded the relevant state and federal standards, while ozone and suspended particulates have exceeded state and federal standards.

Table 3.4-1
Air Quality Monitoring Summary for the Pomona/Walnut Valley Monitoring Stations
(Number of Days Standards Were Exceeded and Maximum Levels During Such Violations[1])

State and Federal Pollutant/Standard	1995	1996	1997	1998	1999
Ozone (O_3)					
State 1-hour > 0.09 ppm	87	44	30	41	19
Federal 1-hour > 0.12 ppm	47	16	7	18	2
Federal 8-hour > 0.08 ppm	NS	NS	10	21	10
Max. 1-hour conc. (ppm)	0.22	0.19	0.16	0.18	0.14
Max. 1-hour conc. (ppm)	NS	NS	0.12	0.13	0.10
Carbon Monoxide (CO)					
State 8-hour $\geq$ 9.1 ppm	0	0	0	0[3]	0
State 1-hour > 20 ppm	0	0	0	0[3]	0
Federal 8-hour $\geq$ 9.5 ppm	0	0	0	0[3]	0
Federal 1-hour > 35 ppm	0	0	0	0[3]	0
Max. 1-hour conc. (ppm)	8	8	8	10	10
Max. 8-hour conc. (ppm)	6.1	5.0	5.0	7.3[3]	6.7
Nitrogen Dioxide (NO_2)					
State 1-hour > 0.25 (ppm)	0	0	0	0	0
Max. 1-hour conc. (ppm)	0.21	0.18	0.15	0.15	0.16
Inhalable Particulates (PM_{10})[4]					
State 24-hour > 50 $\mu g/m^3$	19/61	11/61	6/34[3]	NM	NM
Federal 24-hour > 150 ($\mu g/m^3$)	3/61	0/61	0/34[3]	NM	NM
Max. 24-hour conc. ($\mu g/m^3$)	177	103	67[3]	NM	NM

Source: Air Quality Data, SCAQMD 1996, 1997, 1998, 1999, and 2000

1 With the exception of inhalable particulates (PM_{10}) and visual range, all values are based on 365 days per year.
2 NS - No standard in existence.
3 Less than 12 full months of data and may not be representative.
4 Violations per number of samples.
5 NM - Not Monitored.

Ozone exceeded the state 1-hour standard approximately 12 percent of the time during the last five years and the federal 1-hour standard about five percent of the time. Additionally, the new federal 8-hour standard was exceeded four percent of the time since 1997.

The Pomona/Walnut Valley station began monitoring PM10 particulates in 1995. Since that time, suspended particulates exceeded the 24-hour state standard (24-hour concentration >50 $\mu g/m^3$) about 23 percent of the time it was monitored. The federal standard (24-hour concentration >150 $\mu g/m^3$) was exceeded almost two percent of the time.

The state and federal one-hour and eight-hour carbon monoxide standards were not exceeded in any of the previous five years. Eight-hour carbon monoxide concentrations ranged from 5.0 parts per million (ppm) to 7.3 ppm between 1995 and 1999, while the maximum one-hour level measured during this period was 10 ppm in both 1998 and 1999. The state nitrogen dioxide standard was also not exceeded at the Pomona/Walnut Valley air quality monitoring station during this five-year time frame.

3.4.1.3 Regulatory Setting

Criteria Air Pollutants

The quality of the ambient air is affected by pollutants emitted into the air from stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources consist of one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial processing plants. Area sources are widely distributed and produce many small emissions.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources are a combination of emissions from automobiles, trucks, and indirect sources. Indirect sources are sources that by themselves may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or consuming energy. Examples of indirect sources include an office complex or commercial center that generates commuter trips and consumes energy resources through the use of electricity for lighting and natural gas for space heating. Indirect sources also include actions proposed by local governments, such as redevelopment districts and private projects involving the development of either large buildings or tracts. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law. These regulated air pollutants are known as "criteria air pollutants" and are categorized as primary and secondary pollutants. Primary criteria air pollutants are those that are emitted directly from sources. Carbon monoxide (CO); reactive organic gases (ROG); nitrogen oxides (NO_x); sulfur dioxide (SO_2); and most fine particulate matter (PM_{10}), including lead (Pb) and fugitive dust; are primary criteria air pollutants. ($PM_{2.5}$ particulate matter has also recently been added to this listing; however, the SCAQMD does not currently have data as to document ambient conditions or quantify these emissions and the California Air Resources Board (CARB) does not currently recognize the U.S. Environmental Protection Agency's (EPA) findings on this pollutant. Therefore, PM2.5 impacts are omitted from this analysis.) Secondary criteria air pollutants are those pollutants formed by chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

Presented below is a description of each of these primary and secondary criteria air pollutants and their known health effects.

Carbon Monoxide

CO is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances (e.g., gasoline or diesel fuel). The primary adverse health effect associated with CO is the interference of normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

Reactive Organic Gases

ROGs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by ROG but rather by reactions of ROG to form secondary pollutants.

Nitrogen Oxides

NO_x serves as integral participants in the process of photochemical smog production. The two major forms of NO_x are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_x acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Sulfur Dioxide

SO_2 is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue.

Particulates

Particulates consist of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Particulate discharge into the atmosphere results primarily from wind erosion on soil as well as industrial, agricultural, construction, and transportation activities. Particulates may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

Fugitive Dust

Fugitive dust poses primarily two public health and safety concerns. The first concern is that of respiratory problems attributable to the suspended particulates in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent (much like sandblasting activities).

Ozone

O_3 is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds and NO_x (both byproducts of the internal combustion engine) react with sunlight. O_3 is present in relatively high concentrations in the SCAB, and the damaging effects of photochemical smog are generally related to the concentrations of O_3. O_3 may pose a health threat to those who already suffer from respiratory diseases as well as healthy people.

Nitrogen Dioxide

NO_2 is a byproduct of fuel combustion. The principal form of NO_2 produced by combustion is NO, but NO reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10} (particulates having an aerodynamic diameter of 10 microns or 0.0004 inch or less in diameter).

Ambient Air Quality Standards

Air quality impacts of a project, combined with existing background air quality levels, must be compared to the applicable ambient air quality standards (AAQS) to gauge their significance. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Those standards currently in effect in California are listed in Table 3.4-2.

Table 3.4-2
Ambient Air Quality Standards

Air Pollutant	California	Federal	
	Concentration	Primary (>)	Secondary (>)
Ozone	0.09 ppm, 1-hr. avg. >	0.12 ppm, 1-hr. avg.	0.12 ppm, 1-hr. avg.
Carbon Monoxide (CO)	9 ppm, 8-hr. avg. >[a] 20 ppm, 1-hr. avg. >	9 ppm, 8-hr. avg.[b] 35 ppm, 1-hr. avg. >	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg. >
Nitrogen Dioxide (NO_2)	0.25 ppm, 1-hr. avg. >[c]	0.053 ppm, annual avg.[d]	0.053 ppm, annual avg.[e]
Sulfur Dioxide (SO_2)	0.05 ppm, 24-hr. avg.≥with ozone ≥ 0.10 ppm, 1-hr. avg. or TSP ≥ 100 μg/m³, 24-hr. avg.0.25 ppm, 1-hr. avg.>[e]	0.03 ppm, annual avg. 0.14 ppm, 24-hr. avg.	0.50 ppm, 3-hr. avg.
Suspended Particulate Matter (PM_{10})	30 μg/m³, annual geometric mean> 50 μg/m³, 24-hr. avg. >[f]	50 μg/m³, annual[g] arithmetic mean 150 μg/m³, 24-hr. avg.	50 μg/m³, annual [g] arithmetic mean 150 μg/m³, 24-hr. avg.
Sulfates	25 μg/m³, 24-hr. avg. ≥		
Lead (Pb)	1.5 μg/m³, 30-day avg. ≥	1.5 μg/m³, calendar quarter	1.5 μg/m³, calendar quarter
Hydrogen Sulfide	0.03 ppm, 1-hr. avg. ≥		
Vinyl Chloride	0.010 ppm, 24-hr. avg. ≥		
Visibility Reducing Particles	In sufficient amount to reduce the visual range to less than 10 miles at relative humidity less than 70%, 8-hr. avg. (9am-5pm)[h]		

a. Effective December 15, 1982. The standards were previously 10 ppm, 12-hour average and 40 ppm, 1-hour average.
b. Effective September 13, 1985, standard changed from > 10 mg/m³ (≥ 9.3 ppm) to > 9ppm (≥ 9.5 ppm).
c. Effective March 9, 1987, standard changed from ≥ .25 ppm to > .25 ppm.
d. Effective July 1, 1985, standard changed from > 100 μg/m³ (> .0532 ppm) to > .053ppm (> .0534 ppm).
e. Effective October 5, 1984. The standard was previously .5 ppm, 1-hour average.
f. Effective August 19, 1983. The standards were previously 60 μg/m³ TSP, annual geometric mean, and 100 μg/m³. TSP, 24-hour average.
g. Effective July 1, 1987. The standards were previously: Primary - Annual geometric mean TSP > 75 μg/m³, and a 24-hour average TSP > 260 μg/m³. Secondary - Annual geometric mean TSP > 60 μg/m³, and a 24-hour average TSP > 150 μg/m³.
h. Effective October 18, 1989. The standard was previously "In sufficient amount to reduce the prevailing visibility to less than 10 miles at relative humidity less than 70%, 1 observation", and was based on human observation rather than instrumental measurement.

Air Quality Management Planning

The SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the Air Quality Management Plan (AQMP) for the SCAB. Since 1979, a number of AQMPs have been prepared. The most recent comprehensive plan currently now fully approved by the EPA is the 1997 Air Quality Management Plan (1997 AQMP), which includes a variety of strategies and control measures. The 1997 AQMP was based on the 1994 AQMP and ultimately the 1991 AQMP and was designed to comply with State and federal requirements, reduce the high level of pollutant emissions in the SCAB, and ensure clean air for the region through the control measures detailed below. To accomplish its task, the 1991 AQMP relied on a multilevel partnership of governmental agencies at the federal, State, regional, and local level. These agencies (i.e., the EPA, CARB, local governments, SCAG, and SCAQMD) are the cornerstones that implement the AQMP programs.

The control measures in the 1991 AQMP are categorized into three tiers: (1) Tier I includes measures that propose currently available technological applications and management practices that can be adopted within the next 5 years, (2) Tier II measures are based on significant advancement of today's technological applications within the next 10 to 15 years, and (3) Tier III requires the development of new technologies that are currently in the research stage and that will be implemented within the next 20 years. In addition, the 1991 AQMP provides an attainment planning framework that sets specific dates by which the SCAB will achieve the federal and State air quality standards. These dates are shown in Table 3.4-3. The 1991 AQMP was revised in 1994 to satisfy the planning requirements of both the 1990 amendments of the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). These requirements are briefly discussed in the following section.

Table 3.4-3
Projected Attainment Dates for Federal and State Air Quality Standards for the South Coast Air Basin

Air Pollutant	State	Federal
➢ Nitrogen dioxide (NO_2)	➢ December 31, 1999	➢ December 31, 1994
➢ Carbon monoxide (CO)	➢ 2000 - 2010	➢ December 31, 1999
➢ Ozone (O_3)	➢ Beyond 2010	➢ December 31, 2009
➢ Particulate matter (PM_{10})	➢ Beyond 2010	➢ December 31, 2005

Federal Clean Air Act Requirements

The CAA requires plans to provide for the implementation of all reasonably available control measures "as expeditiously as practicable," including the adoption of reasonably available control technology for reducing emissions from existing sources. Emission control innovations in the form of market-based approaches are explicitly encouraged by the CAA. The SCAQMD is the first local agency in the country to adopt a market-based approach for controlling stationary source emissions of oxides of nitrogen and sulfur and, in accordance with the pending revisions, is proposing additional market-based control measures. Other federal requirements addressed in the revision include mechanisms to track plan implementation and milestone compliance for O_3 and CO.

In addition, the 1990 amendments to the CAA require the SCAQMD to develop the following demonstrations or plans addressed in the 1994 AQMP: (1) an O_3 attainment demonstration, (2) a post-1996 rate-of-progress demonstration, and (3) a PM_{10} State Implementation Plan (SIP) (required in 1996) that incorporates best available control measures for fugitive sources.

California Clean Air Act Requirements

In addition to federal requirements, the 1994 AQMP meets CCAA requirements. According to the CCAA, air pollution control districts must design their air quality attainment plans to achieve a reduction in basin-wide emissions of 5 percent or more per year (or 15 percent or more in a 3-year period) for all nonattainment pollutants and their precursors. For emission reduction accounting purposes, the CARB has established a 7-year initial reporting period (1988 to 1994) with reporting intervals every 3 years thereafter. Consequently, the 1994 AQMP was to achieve a 35-percent reduction for the initial period and a 15-percent reduction for every subsequent interval.

The CCAA also requires that the 1994 AQMP control measures reduce overall population exposure to criteria pollutants, with a 40-percent reduction due by the end of 1997 and a 50-percent reduction by the year 2000. This provision is applicable to O_3, CO, and NO_2 in the SCAB. The CCAA further requires the SCAQMD's Governing Board to determine that the 1994 AQMP is a cost-effective strategy that will achieve attainment of the State standards by the earliest practicable date. In addition, the 1994 AQMP must include an assessment of the cost-effectiveness of available and proposed measures and a list of the measures ranked from the least cost-effective to the most cost-effective. In addition to cost-effectiveness, other factors must be considered, including technological feasibility, emissions reduction potential, rates of reduction, public acceptability and enforceability.

1997 AQMP

The AQMP is a dynamic document that is updated every 3 years. The most recent version of the AQMP (1997 Air Quality Management Plan) was recently accepted by the EPA for incorporation as the State Implementation Plan (SIP). The 1997 AQMP is based on the 1994 Plan and carries forward most of the strategies included therein. However, with recent findings by nationally recognized health experts, the new Plan puts greater emphasis on PM_{10} particulate matter. In fact, the 1997 Plan is the first Plan required by federal law to demonstrate attainment of the federal PM10 ambient air quality standards. The 1997 Plan also updates the demonstration of attainment of ozone and carbon monoxide. Additionally, because the Basin came into attainment of the federal nitrogen dioxide standard since the prior AQMP was prepared, the new Plan includes a maintenance plan to assure continued compliance.

The 1997 AQMP also addresses several State and federal planning requirements and incorporates new scientific data, primarily in the form of updated emissions inventories, ambient measurements, and new air quality models. Expanding on the control strategies included in the 1994 AQMP, the 1997 Plan projects sufficient emissions reductions to meet all federal criteria pollutant standards within the time frames allowed under the federal Clean Air Act.

The 1997 AQMP also addresses notable regulatory rules promulgated since the preparation of the 1994 Plan. These include the implementation of Phase II reformulated fuels in 1996, the replacement of Regulation XV rideshare program with an equivalent emission reduction program, and new incentive programs for generating emission credits. Other highlights of the 1997 Plan are noted below.

- Use of the most current air quality information (1995), including special particulate matter data from the PM_{10} Technical Enhancement Program;
- Improved emissions inventories; especially for motor vehicles, fugitive dust, and ammonia sources;
- A similar, but fine tuned overall control strategy with continuing emphasis on flexible, alternative approaches including intercredit trading;
- A determination that certain control measures contained in the 1994 AQMP, are infeasible, most notably the future indirect source measures;
- Enhanced modeling for particulates;
- Separate analyses for the desert portions within the District's jurisdiction: the Coachella Valley within the newly designated Salton Sea Air Basin; and the Antelope Valley within the Mojave Desert Air Basin;

- Attainment to the federal Post-1996 Rate-of-Progress Plan and the Federal Attainment Plans for ozone and carbon monoxide;
- A Maintenance Plan for nitrogen dioxide; and
- An attainment demonstration and State Implementation Plan Revision for PM10.

The 1997 AQMP has now been fully approved by the EPA and serves at the current AQMP.

3.4.2 Thresholds of Significance

The State CEQA Guidelines define a significant effect on the environment as "a substantial adverse change in the physical condition which exists in the area affected by the proposed project." In order to determine whether or not the proposed project would cause a significant effect on the environment, the impact of the proposed project must be determined by examining the types and levels of emissions generated by the proposed project and its impacts on factors that affect air quality. To accomplish this determination of significance, the SCAQMD has established air pollution thresholds against which a proposed project can be evaluated. The SCAQMD has established thresholds to assist lead agencies in determining whether or not the proposed project is significant. If the thresholds are exceeded by a proposed project, then it should be considered significant.

The SCAQMD recommends that the following two types of air pollution thresholds be used by lead agencies in determining whether the operational phase of a proposed project is significant. However, *the final determination of whether or not a project is significant is within the purview of the lead agency* pursuant to Section 15064(b) of the *State CEQA Guidelines* [emphasis added]. If the lead agency finds that the proposed project has the potential to exceed either of the air pollution thresholds, the project should be considered significant. Both of these threshold factors are individually discussed below.

Separate threshold standards have been recommended for assessing construction-term impacts, which are averaged over a 3-month period to include only actual working days.

3.4.2.1 Construction Phase Thresholds of Significance

The following significance thresholds for air quality have been established by the SCAQMD on a daily basis for construction emissions:

(1) 75 pounds per day for ROG;
(2) 100 pounds per day for NO_x;
(3) 550 pounds per day for CO;
(4) 150 pounds per day for PM_{10}; and
(5) 150 pounds per day of SO_x.

The following significance thresholds for air quality have been established by the SCAQMD on a quarterly basis for construction emissions:

(1) 2.5 tons per quarter of ROG;
(2) 2.5 tons per quarter of NO_x;
(3) 24.75 tons per quarter of CO;
(4) 6.75 tons per quarter of PM_{10}; and
(5) 6.75 tons per quarter of SO_x.

During construction, if any of the identified daily or quarterly air pollutant thresholds are exceeded by the proposed project, then the proposed project's air quality impacts should be considered significant.

3.4.2.2 Operational Phase Thresholds of Significance (Primary Effects)

Specific criteria air pollutants have been identified by the SCAQMD as pollutants of special regional concern. Based upon this categorization, the following significance thresholds for operational emissions have been established by the SCAQMD for project operations:

(1) 55 pounds per day of ROG;
(2) 55 pounds per day of NO_x;
(3) 550 pounds per day of CO;
(4) 150 pounds per day of PM_{10};
(5) 150 pounds per day of SO_x; and
(6) California State 1-hour or 8-hour CO standards.

Projects within the SCAB with daily operation-related emissions that exceed any of the above emission thresholds may be considered significant.

The SCAQMD indicated in Chapter 6 of their *Handbook*, that they consider a project to be mitigated to a level of insignificance if its primary effects are mitigated below the thresholds provided above.

3.4.2.3 Operational Phase Thresholds of Significance (Secondary Effects)

The SCAQMD recommends that "additional indicators" should be used as screening criteria with respect to air quality. Relevant additional factors identified in the *Handbook* include the following significance criteria:

(1) interference with the attainment of the federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation;
(2) generation of vehicle trips that cause a CO "hot spot";
(3) creation of (or subject receptors to) an objectionable odor over 10 dilution to thresholds;
(4) introduction of hazardous materials on-site which could result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety;
(5) emission of an air toxic contaminant regulated by SCAQMD rules or included on a federal or State air toxic list;
(6) involve the burning of hazardous, medical or municipal waste as waste-to-energy facilities; and/or
(7) emission of carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of 10 in 1 million (*for new facilities*).

The SCAQMD indicates in Chapter 6 of their *Handbook*, that they consider a project to be mitigated to a level of insignificance if its secondary effects are mitigated below the thresholds provided above.

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse effect on air quality if it will:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

- Expose sensitive receptors to substantial pollutant concentrations.

- Conflict with or obstruct implementation of the applicable air quality plan.

- Create objectionable odors affecting a substantial number of people.

3.4.3 <u>Environmental Impacts</u>

The project consists of the continuance of existing operations. No expansion of these operations or new operations are proposed and no new construction is to be performed. Furthermore, the project will not require additional employees nor generate additional vehicle trips. As such, the project will not create additional emissions or add to any potentially significant CO hot spots and no impacts would be produced.

Another potential impact for a project is its ability to create a health risk, and more specifically a 10 in 1 million excess cancer risk. This criterion applies to *new* facilities to be sited within ¼ mile of any sensitive receptor locations. The facility is an "existing source" and is subject to SCAQMD Regulation 1402. Regulation 1402 restricts existing sources to a maximum excess cancer risk of *100 in 1 million.*

To determine if such an impact is probable, Kleinfelder prepared a Health Risk Assessment (HRA), (included as Appendix C of this EIR). The assessment considers the potential impacts on both workers and surrounding land uses. While the health risk assessment considered a number of elements and chemical compounds in its assessment, it was determined that hexavalent chromium, followed by lead, posed the greatest health hazards. California guidelines for the preparation of Human Health Risk Assessments stipulate that total chromium values are assumed to be 100 percent hexavalent chromium.

The assessment concludes that the maximum "hypothetical" exposed receptor could be as high as 50 in 1 million, or half the allowable criterion. The "actual" maximum exposed resident and site workers would be exposed to excess cancer risks of 20 in 1 million or one fifth of the applicable standard and is less than significant.

3.4.3.1 Project Consistency With AQMP

CEQA requires that projects be consistent with the *AQMP.* A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the *AQMP.* It fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are fully addressed. Additionally, it provides the local agency with ongoing information assuring local decision-makers that they are making real contributions to clean air goals contained in the *AQMP.* Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review. This is because the *AQMP* strategy is based on projections from local General Plans. Therefore, projects that are consistent with the local General Plan are considered consistent with the air quality-related regional plan.

The project consists of the continuation of existing operations that began in 1959. As such, these emissions pre-date the *AQMP* and are included in its inventory. No new emissions are associated with the project the project is considered as consistent with the *AQMP.*

3.4.3.2 Creation of Odors

Odors are one of the most obvious forms of air pollution to the general public. Odors can present significant problems for both the source and the surrounding community. Although offensive odors seldom cause physical harm, they can cause agitation, anger and concern to the general public. Most people determine an odor to be offensive (objectionable) if it is sensed longer than the duration of a human breath; typically 2 to 5 seconds. The creation of objectionable odors is regulated through the SCAQMD Rule 402, Nuisance. The rule states that "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or have a natural tendency to cause, injury or damage business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for growing crops or the raising of fowl or animals." Odors, like other air quality nuisance complaints, are typically handled on an individual basis. The SCAQMD rules gives an SCAQMD inspector wide latitude to enforce odor abatement, particularly in the event of a nuisance complaint.

The project is located in a highly industrialized area. Local odors have been noted, however, their source has not been verified. Because of the extended distances from sensitive receptors, no nuisance complaints from local residents are anticipated.

3.4.3.3 Closure and Post-Closure

The Closure Plan identifies the steps necessary to completely close the facility at the end of its intended operating life, and applies to the following regulated operating units: electric arc furnace scrubber; reverberatory furnace scrubber; battery wrecker; water treatment system; container storage area; containment building. It is anticipated that closure will commence when Quemetco issues a 180 notice of intent to close.

The activities associated with closure and post-closure include decontamination of facility equipment and structures, sampling and analysis, and removal of all hazardous waste residue and contaminated soil. Groundwater monitoring and run-on and run-off control are included in both closure and post-closure activities. Following full closure of the facility, monitoring of the site will occur for thirty years. The ultimate use of the facility following closure and post-closure is unknown.

Implementation of the Closure and Post-Closure Plans that would result in dismantling activity and some worker trips to the Quemetco site. Trips generated would be fewer than under current conditions, and dismantling activities would be temporary. Thus, no significant impacts to air quality would result from implementation of the Closure and Post-Closure Plans.

3.4.4 Mitigation Measures

No significant impacts have been identified and no mitigation is warranted.

3.4.5 Level of Significance After Mitigation

No mitigation measures are required. Impacts remain less than significant.

3.5 NOISE

3.5.1 Environmental Setting

3.5.1.1 Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Most people can detect changes in sound levels of approximately 3 dBA under normal, quiet conditions. Changes of 1 to 3 dBA are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A change of 5 dBA is readily discernable to most people in an exterior environment.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are "felt" more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound, and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

3.5.1.2 Measurement of Sound

Sound intensity is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10-decibel increase in sound level is perceived by the human ear as only doubling of the loudness of the sound. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Various sound levels corresponding to typical sources are shown in Figure 3.5-1.

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately six decibels for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by onsite operations from stationary equipment or activity at the project site. If noise is produced by a line source such as highway traffic, the sound decreases three decibels for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases 4.5 decibels for each doubling of distance.

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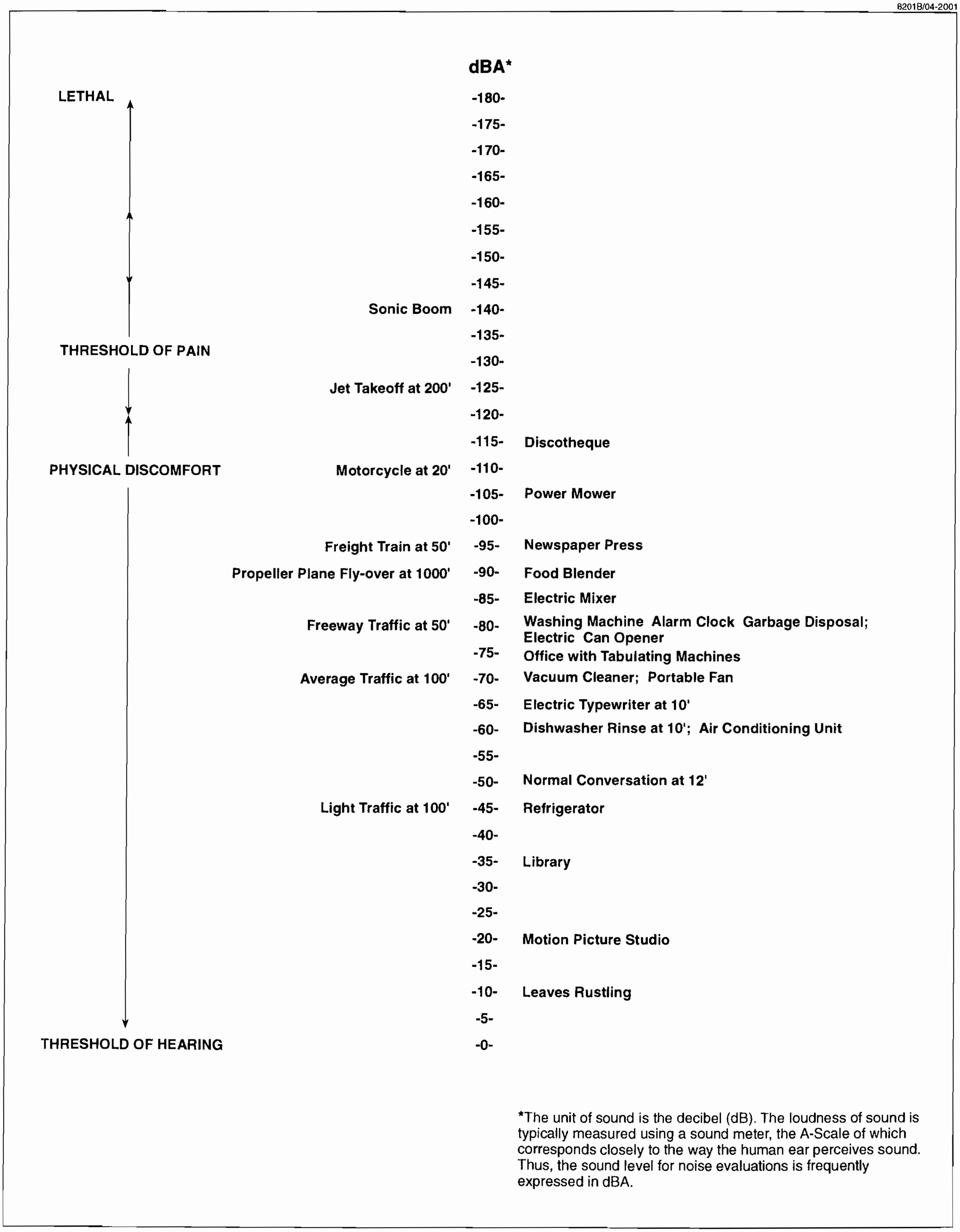

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COMMON SOURCES OF NOISE AND THEIR RELATIVE STRENGTHS
Figure 3.5-1

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called Leq), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L50 noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L02, L08, and L25 represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. These Leq values are typically used to demonstrate compliance for stationary noise sources with the City's Noise Ordinance as discussed below. Other values typically noted during a noise survey are the Lmin and Lmax. These values represent the minimum and maximum root-mean-square noise levels obtained over a period of one second.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law, as well as both the County and City General Plans Noise Elements require that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (Ldn). The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 to 10:00 p.m. and 10 dBA for the hours from 10:00 p.m. to 7:00 a.m. The Ldn descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 and 10:00 p.m. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher).

3.5.1.3 Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear.

3.5.1.4 Noise Standards and Criteria

To limit population exposure to physically and/or psychologically damaging, as well as intrusive noise levels, the federal government, the State of California, various County governments, and most municipalities in the State have established standards and ordinances to control noise.

<u>Federal Government</u>

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the USEPA. Noise exposure of this type is dependent on work conditions and is addressed through a facility's Health and Safety Plan.

The U.S. Department of Housing and Urban Development (HUD) has set a goal of 65 dBA Ldn as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted within the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provides 20 dBA of attenuation with the windows closed. Based on this premise, the interior Ldn should not exceed 45 dBA.

State of California Noise Standards

Figure 3.5-2 is a land use compatibility chart for community noise prepared by the California Office of Noise Control. It identifies normally acceptable, conditionally acceptable and clearly unacceptable noise levels for various land uses. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

As shown in Figure 3.5-2, single family residences are normally acceptable in exterior noise environments up to 60 dBA CNEL and conditionally acceptable in areas up to 70 dBA CNEL. Multi-family residential uses are normally acceptable in exterior environments up to 65 dBA CNEL and conditionally acceptable in those up to 70 dBA CNEL. Schools, libraries, churches, offices and business, commercial and professional uses are normally acceptable in exterior noise environments up to 70 dBA CNEL. Note that there are no set standards for industrial land uses.

City of Industry Noise Standards

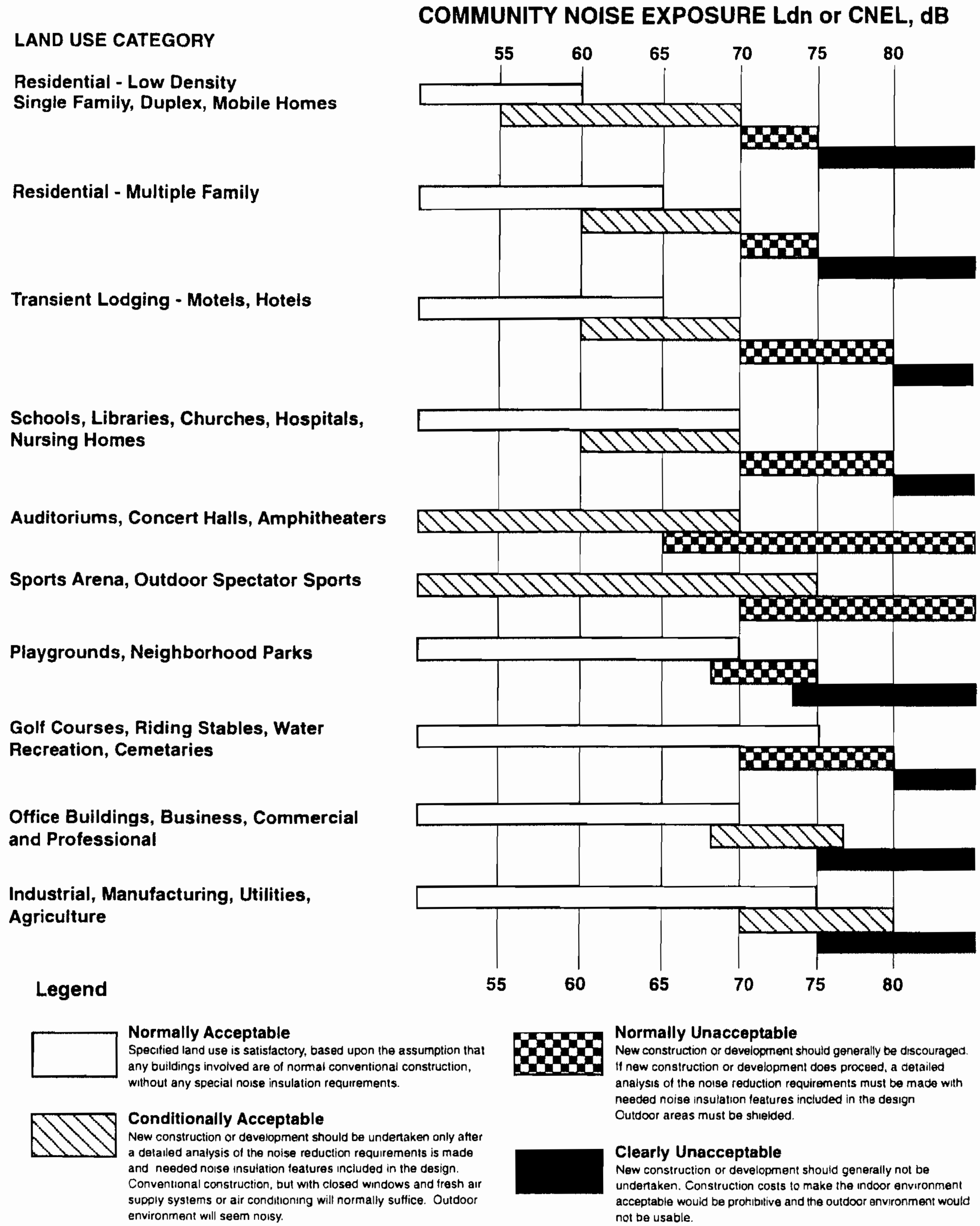
The City of Industry has not adopted long-term noise criteria for land use compatibility consideration. The City of Industry General Plan Noise Element (September 1974) provides goals and policies pertaining to noise. The short-term goals and policies include maintaining a low profile of noise sources, continuing compatible land uses, assessing the cost of noise abatement and conducting a continuing community noise study. The long-term goals and policies are to protect quiet areas from future noise impacts, to minimize noise levels from fixed point noise sources, to update the Noise Element and to study the noise ordinance prepared by the League of Cities for use by the City.

The City of Industry uses the County of Los Angeles Noise Ordinance and Community Noise Guidelines for short-term environmental noise assessments. The County Noise Ordinance (Section 12.08.430) limits construction operations that create noise levels across real property lines in excess of 75 dBA in single family residential areas, 80 dBA in multi-family residential areas and 85 dBA in semi-residential and commercial areas from 7:00 a.m. to 8:00 p.m. Monday through Saturday, with the exception of public holidays. The County Noise Ordinance is included by reference in the Industry Municipal Code. The County Guidelines for Community Noise are on file in the City of Industry City Engineer's Office. Further standards are identified for residential properties with a base of 50 dBA for daytime and 45 dBA for nighttime hours. Commercial properties are subject to daytime and nighttime standards of 60 and 55 dBA, respectively. The base standard for industrial properties is 70 dBA. In all cases, these levels are not to be exceeded for more than a period of 30 minutes in any hour (L50). These levels may be increased by 5 dBA for 15 minutes (L25), 10 dBA for 5 minutes (L08) and 15 dBA for 1 minute (L02). The levels are not to be exceeded by 20 dBA for any period of time. Note that these standards are applicable to noise sources under City jurisdiction and do not include pre-empted sources such as vehicles while traveling on public roads.

3.5.1.5 Existing Noise Environment

The project is located in an industrial area within the City of Industry. The Quemetco property is a nearly level 15-acre parcel bound by the concrete-lined San Jose Creek to the north, Salt Lake Avenue to the south, Seventh Avenue to the west and a vacant lot to the east.

The project area is typical of industrial areas. Because the project would not add new traffic to the roadways or result in an augmentation in operations, no field readings were obtained, nor deemed necessary. Most local noise is due to the use of motor vehicles on local roadways including the Pomona (SR- 60) Freeway. Industrial processes and truck loading operations also add to the ambient noise, but the combined contribution of these operations is small when compared to the noise generated by road traffic.



Source: Synectecology

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NOISE AND LAND USE COMPATIBILITY
Figure 3.5-2

3.5.1.6 Proximate Land Uses

The area immediately surrounding the project site contains industrial and manufacturing uses with some service commercial uses located along Seventh Avenue. The concrete-lined San Jose Creek bounds the property to the north and carries flood waters northwest to the San Gabriel River. Businesses to the north, across the San Jose Creek, include Avery Dennison Stationary Products, Inc., Olympia Industrial, Inc., Volkswagen of America, Inc., and the Golden State Food Corporation. Single-family homes with some multiple-family dwellings are situated one mile to the northeast in the City of La Puente. Associated neighborhood commercial uses, schools, and churches are located in this neighborhood as well.

The County of Los Angeles' unincorporated Community of Hacienda Heights is located approximately ¼-mile south of the site. This community is dominated by low-density residential development. The nearest homes are blocked from visual contact with the Quemetco facility by a two-story industrial building that extends along Clark Avenue. The Pomona Freeway (SR 60) is located approximately ½-mile south of the Property within Hacienda Heights.

The western side of the property is bound by Seventh Avenue, a four-lane divided roadway. A six-foot chainlink fence and screening hedges on the western boundary block views of the property from Seventh Avenue. Businesses across Seventh Street from the property include the Industrial Steel and Wire Corporation, and the West Point Pepperell Distribution Center. The County of Los Angeles' unincorporated Communities of Avocado Heights and Basset are located approximately ½-mile west of the Property. These communities consist of low-density residential development. The Community of Avocado Heights has more rural character compared to the surrounding community with larger yards and some equestrian trails. Schools, churches and a Bible College are also located in this area.

An undeveloped parcel borders the property to the east. Industrial businesses are located beyond the vacant lot to the east and include Industrial Fiber Glass, Mercury Plastics, Piper Casepro and California Gym.

3.5.2 <u>Thresholds of Significance</u>

The State CEQA Guidelines indicate a project will normally have a significant effect on the environment related to noise if it will:

- increase substantially the ambient noise levels for adjoining areas, or
- conflict with adopted environmental plans and goals of the community where it is located.

The applicable noise standards governing the project site are the Los Angeles County Noise Standards, as adopted by the City of Industry. Mobile sources of noise, such as truck deliveries and railroad operations are exempt from local ordinance but are still subject to CEQA and would be significant if the project generates a volume of traffic or entails railroad operations which would result in a substantial increase in mobile source-generated noise. Note that CEQA does not define what a "substantial increase" is. Webster's dictionary defines substantial as "considerable in quantity." As noted above in the discussion of noise definitions, the human ear can detect changes of 3 dBA and changes of less than 3 dBA, while audible under controlled circumstances, are not readily discernable in an outdoor environment. Thus, a change of 3 dBA is considered as a barely audible change. However, CEQA uses a "substantial change" as its criterion. Because most people can readily hear a change of 5 dBA in an exterior environment, this value was established for the project as the CEQA criterion for substantial change (Note that Caltrans defines a noise increase as substantial when the predicted noise levels with the project would exceed existing noise levels by 12 dBA Leq.)

3.5.3 <u>Environmental Impacts</u>

3.5.3.1 Potential Offsite Impacts

The project site is located in an industrial area and its existing noise is compatible with local, proximate, land uses. The project consists of the continuance of existing operations. No expansion of these operations or new operations are proposed and no new construction is to be performed. Furthermore, the project will not require additional employees nor generate additional vehicle trips. As such, the project will not create additional noise, and no significant offsite noise impacts would occur.

3.5.3.2 Potential Onsite Impacts

Workers involved with the project are subject to augmented noise levels due to their working in proximity to various types of equipment and trucks. Noise in the work place is regulated by the Occupational Safety and Health Administration (OSHA). Article 105, Control of Noise Exposure, sets limitations on worker exposure. Specifically, an employer must administer a continuing, effective hearing conservation program whenever employee noise exposures equal or exceed an eight-hour time weighted average sound level of 85 dBA. Furthermore, workers cannot be exposed to noise levels in excess of 90 dBA Leq for a period in excess of eight hours. Higher noise levels carry shorter allowable duration periods. In no case may workers be exposed to peak noise levels in excess of 140 dB. OSHA also specifies a hearing conservation program, the use of hearing protectors, a training program and record keeping requirements for any workers exposed to prolonged periods of excessive noise. Required compliance with OSHA regulations will ensure that worker exposure to excessive noise remains less than significant.

3.5.3.3 Closure and Post-Closure

The Closure Plan identifies the steps necessary to completely close the facility at the end of its intended operating life. Implementation of the Closure and Post-Closure Plans would result in removal of many of the onsite facilities and some worker trips to the Quemetco site. Noise from dismantling operations would be temporary. Thus, no significant impacts to noise would result from implementation of the Closure and Post-Closure Plans.

3.5.4 <u>Mitigation Measures</u>

No significant impacts have been identified and no mitigation is necessary.

3.5.5 <u>Level of Significance After Mitigation</u>

No mitigation resources are required. Impacts remain less than significant.

3.6 RISK OF UPSET

This section addresses the potential risk to the surrounding community due to abnormal events or upsets at or involving the Quemetco facility. The potential risk from upsets is generally acute in nature versus the chronic risk that may occur from normal operations. Chronic risks are addressed in the Health Risk Assessment (Appendix C) and summarized in Section 3.7. The potential impacts to public emergency response services are addressed in Section 3.8.

3.6.1 Environmental Setting

3.6.1.1 Types of Emergencies

Normal daily operations, including compliance with environmental permitting and regulatory controls, do not result in upset conditions. Operational upsets can result from accidents, which in turn can result in both onsite and offsite consequences. Such accidents can release gases and/or liquids that are flammable and/or toxic. Types of emergencies which may occur include fires, explosions, toxic gas clouds, and flammable gas clouds. Fires produce radiant heat which can cause burns. Explosions produce blast overpressure and flying debris which can damage structures and harm people. Toxic gas clouds can cause severe health impacts and even fatalities if inhaled. Flammable gas clouds can become ignited resulting in fires and/or explosions.

3.6.1.2 Potentially Hazardous Materials

Table 3.6-1 lists the potentially hazardous materials stored at the facility. A short description of each material together with its National Fire Protection Association (NFPA) rating for health, flammability, and reactivity hazard is also provided. NFPA hazard ratings can range from 0 to 4 in each category with 4 being the most hazardous. Table 3.6-2 describes the rating system.

The Quemetco Emergency Preparedness Plan (Quemetco, 2000) lists some additional hazardous materials that are not stored at the facility but that may evolve under emergency situations such as fires or releases. These materials are listed at the bottom of Table 3.6-1.

3.6.1.3 Mitigation Measures Currently In Place

The facility presently has numerous mitigation measures in place to both prevent accidents and to respond to them if they do occur. These measures are summarized below.

Equipment - The facility is equipped to both mitigate the potential for incidents and to rapidly detect incidents if they do occur. All hazardous materials are stored in approved containers, tanks, or vessels. Tanks are located inside secondary containment systems. Transfer areas are curbed and the grade is sloped toward a sump. Transfers of liquids through the facility are accomplished with automatic level controls that start and stop transfer pumps. Main sumps have a high level alarm to alert supervisors and operators to prevent overfilling of the sump.

The facility has a fire alarm system attached to the emergency fire sprinkler system. Sprinkler systems are present in all areas where flammable liquids are stored. The system consists of both wet pipe and dry pipe equipment.

Table 3.6-1
Potentially Hazardous Materials Stored Onsite
NFPA Rating

Material	Description	Health	Flammability	Reactivity
Acetylene	Flammable gas; pungent	1	4	3
Caustic Potash (Potassium Hydroxide)	White solid, usually in form of flakes or pellets; corrosive	3	0	1
Caustic Soda (Sodium Hydroxide)	White solid, usually in form of flakes or pellets or 50% solution; corrosive	3	0	1
Diesel Fuel	Flammable liquid	0	2	0
Hydrochloric Acid	Oily liquid	3	0	1
Hydrogen Peroxide	Slightly opaque liquid, 35-52% solution	2	0	1
Iron Pyrite (Iron Disulfide)	Gray to silver colored granular material, slight sulfur odor	3	1	0
Metallic Calcium (Calcium Aluminum)	Silvery metallic chunks	1	1	2
Metallic Sodium	Silvery metallic chunks	3	3	2
Nitrogen (Liquid)	Colorless, odorless liquid; Non-flammable	3	0	0
Oxygen (Compressed)	Non-flammable, but promotes combustion	0	0	0
Oxygen (Liquid)	Non-flammable, but promotes combustion	0	0	0
Phosphorus, Red	Dark red power	0	1	1
Propane	Heavier than air gas; Artificially odorized	1	4	0
Quicklime (Calcium Oxide)	White to gray solid	1	0	1
Sodium Nitrate (Niter)	White crystals; oxidizer	1	0	0
Sulfur	Yellow solid or powder	2	1	0
Sulfuric Acid	Oily liquid	3	0	2
Trisodium Phosphate	White crystals	2	0	0
Materials not stored at the facility but that could evolve in the event of a fire or release				
Arsine	Highly toxic and flammable gas	4	4	2
Stibine	Highly toxic and flammable gas	4	4	2
Chlorine	Toxic gas; corrosive	3	0	0
Hydrogen Sulfide	Highly toxic and flammable gas	3	4	0
Sulfur Dioxide	Highly toxic gas; non-combustible	3	0	0

Table 3.6-2
NFPA Rating Definitions

Identification of Health Hazard		Identification of Flammability Hazard		Identification of Reactivity Hazard	
Rating	Type of Possible Injury	Rating	Susceptibility of Materials to Burning	Rating	Susceptibility to Release of Energy
4	Materials which on very short exposure could cause death or major residual injury.	4	Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature, or that are readily dispersed in air and will burn readily.	4	Materials that in themselves are readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.
3	Materials that on short exposure could cause serious temporary or residual injury.	3	Liquids and solids that can be ignited under almost all ambient temperature conditions.	3	Materials that in themselves are capable of detonation or explosive decomposition or reaction but require a strong initiating source or which must be heated under confinement before initiation, or which react explosively with water.
2	Materials that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.	2	Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.	2	Materials that readily undergo violent chemical change at elevated temperatures and pressures or which react violently with water or which may form explosive mixtures with water.
1	Materials that on exposure would cause irritation but only minor residual injury.	1	Materials that must be preheated before ignition can occur.	1	Materials that in themselves are normally stable, but which can become unstable at elevated temperatures and pressures.
0	Materials that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material	0	Materials that will not burn.	0	Materials that in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.
Source: NFPA, 1991					

Additional emergency equipment located at the facility includes front end loaders, hand tools, overpack drums, absorbent material, self contained breathing apparatus (SCBA), personal protective equipment, fire blankets, and fire extinguishers. Maximum travel distance to fire extinguisher is 75 feet except in flammable storage rooms where the distance does not exceed 50 feet.

Training - Employees receive extensive training specific to their particular job assignment. This training addresses, among other things, potential hazards of materials, emergency notification, emergency response plan, and evacuation procedures. Training for supervisors and leadmen includes emergency procedures, principles and hazards of first stage fire response, and conduct of evacuation.

Procedures - Fire and emergency drills are conducted regularly. Procedures for responding to emergency situations are addressed in the Emergency Preparedness and Contingency Plan in Exhibit 10.0-1 of the Application.

Storage and handling of hazardous materials is confined to specific designated locations. Within these locations, each material is identified by individual container labels and/or a readily visible sign. The NFPA hazard classifications are displayed using the standard system.

Loading and unloading procedures have been established to prevent the acceptance of unwanted material and to prevent spillage. All containers must be closed and are inspected for condition.

An emergency response organization has been established to respond to emergencies. People have been assigned specific responsibilities and have received training in these areas.

Contingency Plan - Quemetco has developed an Emergency Preparedness and Contingency Plan to deal with incidents at the facility. The plan identifies the hazardous materials that may be onsite, discusses their potential hazard, and shows where they are stored and/or used. The Plan addresses the emergency organization, emergency notification and alarm system, decontamination equipment and procedures, evacuation, first aid and medical care, emergency equipment, and education and training. It also presents emergency procedures for responding to specific incidents including fires, explosions, spills or releases, floods, earthquakes, vehicle accidents, and bomb threats.

3.6.1.4 Accident History

Small incidents resulting in minor spills or releases have occurred during the life of the facility. These type incidents have resulted in no onsite or offsite injuries, and outside emergency response agencies were not required to respond, with the exception noted as follows. There was one major incident that occurred on October 1985. A rapid gas expansion event occurred in the electric arc furnace. One employee was killed. The fire department was called to assist in the response efforts. The incident did not result in any offsite public safety impacts.

3.6.2 Thresholds of Significance

Impacts resulting from potential hazards can be characterized as to their magnitude and frequency. In this case, the local area is the land and population surrounding the proposed project. In accordance with the methodology described in Federal Emergency Management Agency (1989) and the County of Santa Barbara Environmental Thresholds and Guidelines Manual (County of Santa Barbara, 2000[3]), the potential risk from the proposed project has been classified by severity and frequency as indicated in Table 3.6-3.

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[3] The County of Santa Barbara has adopted stringent methods of assessing risk associated with oil and gas refining and processing and other industrial operations in the County. Santa Barbara County has a record of carefully reviewing the potential impacts for safety/risk of such facilities prior to approval and thus this methodology is highly accepted and have been used herein by the DTSC to make a determination regarding risk of upset.

The severity classification describes the level of public risk for a fatality or injury. The second matrix in the table relates the potential frequency of occurrence of the hazard to the severity of the hazard, and provides the mechanism to evaluate the risk as significant or not significant. This classification is shown in Table 3.6-4. An accident that falls in the shaded area of Table 3.6-4 based on its likelihood and severity is classified as significant.

Table 3.6-3
Severity and Frequency Classifications

	Classification	Description of Public Safety Hazard
SEVERITY	Negligible	No significant risk to the public, with no minor injuries.
	Minor	Small level of public risk, with at most a few minor injuries.
	Major	Major level of public risk with up to 10 severe injuries.
	Severe	Severe public risk with up to 100 severe injuries or up to 10 fatalities.
	Disastrous	Disastrous public risk involving more than 100 severe injuries or more than 10 fatalities.

	Type	Frequency	Description
LIKLIHOOD	Extraordinary	Less than once in one million years.	An event which has never occurred but could occur.
	Rare	Between once in ten thousand years and once in one million years.	An event which has occurred on a worldwide basis, but only a few times.
	Unlikely	Between once in a hundred and once in ten thousand years.	An event which is not expected to occur during the project lifetime.
	Likely	Between once in a year and once in a hundred years.	An event which probably would occur during the project lifetime.
	Frequent	Greater than once in a year.	An event which would occur more than once a year on average.

Table 3.6-4
Hazard Scenario Risk Ranking Matrix

LIKLIHOOD					
Frequent					
Likely					
Unlikely					
Rare					
Extraordinary					
	Negligible	Minor	Major	Severe	Disastrous

SEVERITY

Note: Shaded area denotes significant impact.

3.6.3 Environmental Impacts

The potential risk of upset impact from the hazardous materials used or stored at the facility is addressed below.

Acetylene - Acetylene is a flammable gas that is compressed and stored in Department of Transportation (DOT) certified cylinders. These cylinders are extremely durable and are designed to withstand being dropped. They are stored away from sources of ignition and combustible materials. A release from one of these cylinders would result in a flammable gas cloud which could become ignited by an ignition source. It is unlikely that the cloud would present an offsite hazard. The cylinders are equipped with plugs that melt and release the contents of the cylinder if the cylinder is exposed to fire conditions. This prevents the cylinder from becoming overpressurized and exploding. Acetylene is not toxic to breath. No significant impacts would occur.

Caustic Potash - Caustic potash (potassium hydroxide) is classified as hazardous because it is caustic and can cause sever burns of the eyes, skin, and mucous membranes. It is not flammable. It may be in the form of flakes or pellets. It does not present a personnel hazard unless it comes into direct contact with a person. Personnel working at the Quemetco facility wear protective clothing and thus are protected. No impacts to the general public would occur.

Caustic Soda - Caustic soda (sodium hydroxide) is classified as hazardous because it is caustic and can cause sever burns of the eyes, skin, and mucous membranes. It is not flammable. It may be in the form of flakes, pellets, or 50% solution with water. It does not present a personnel hazard unless it comes into direct contact with a person. Personnel working at the Quemetco facility wear protective clothing and thus are protected. No impacts to the general public would occur.

Diesel Fuel - Diesel fuel is a combustible liquid. It is stored in both above ground and below ground bulk containers. A spill during fueling of equipment is possible but does not present a serious threat. Fueling activities would be similar to those at a gas station. A diesel fuel spill has a low potential for becoming ignited because it does not produce sufficient flammable vapors at ambient temperatures to become ignited. No impacts to the general public would occur.

Hydrochloric Acid - Hydrochloric acid is not flammable but can cause severe burns if the liquid contacts the skin, and the vapor is toxic to breathe. The immediately dangerous to life and health (IDLH) concentration is 100 ppm. Hydrochloric acid is stored in small containers which would not result in offsite impacts if a release should occur.

Hydrogen Peroxide - Hydrogen peroxide in 35% to 52% solution in water is stored at the facility. In this concentration it may cause irritation to the skin and can cause health impacts if the vapors are inhaled. The solution has a low vapor pressure at ambient temperatures and therefore produces very little vapors. It is stored in small containers and a release would not result in any offsite impacts.

Iron Pyrite - Iron pyrite (iron disulfide) is stored as a granular material away from any acids. It is not combustible. It has an NFPA health hazard rating of 3 because when heated to decomposition it can emit very toxic fumes (see other materials below) due to contact with acids and acid fumes. The potential for offsite hazard is mitigated as described by separating the storage of iron pyrite from acids. No significant offsite impacts would occur.

Metallic Calcium - Metallic Calcium is stored as non-uniform blocks or chunks of material. NFPA health and flammability ratings are both 1, which means it does not pose a significant hazard.

Metallic Sodium - Metallic sodium is stored as non-uniform blocks or chunks of material. It is highly reactive, particularly with moisture. It reacts exothermally with the moisture of the body or tissue surfaces, causing thermal and chemical burns due to the reaction with sodium and the sodium hydroxide formed. It is a flammable solid. It presents an explosion hazard when exposed to moisture. It can emit toxic fumes of sodium oxide when heated. It can also react vigorously to explosively with oxidizing materials. This product could pose an offsite hazard if involved in a fire or contact with a wet substance. The metallic sodium is stored in an enclosed area on a concrete pad in a separate area away from the storage of any other material. This storage method mitigates the potential for offsite impacts.

Nitrogen - Liquid nitrogen presents a hazard because it is very cold if released and can cause severe burns. It is a nonflammable gas when it vaporizes, and no offsite impacts would be expected to occur.

Oxygen - Oxygen, in both compressed form and liquid form, is non-flammable, but does promote combustion. It is stored away from combustible gas installations, fuel gas cylinders, and combustible materials. This storage method mitigates potential impacts to less than significant.

Phosphorus, Red - This is stored as a dark red powder, and classified as a flammable solid. Exposure to heat may cause reversion to yellow phosphorus, which is toxic and spontaneously flammable upon contact with air. It is stored away from other materials to prevent exposure to heat. This storage method mitigates potential impacts to less than significant.

Propane - Propane is a flammable gas stored outside in two 30,000-gallon pressure vessels. Propane is heavier than air. A major release of propane could produce a flammable gas cloud that could extend offsite. In addition, one of the pressure vessels could become involved in a boiling liquid expansion vapor explosion (BLEVE) if heated rapidly. A BLEVE can result in a release of energy, producing a blast overpressure wave that can damage objects and injure or kill people. Because of these potential hazards, pressure vessels storing propane must be designed and constructed to demanding standards. The vessels are equipped with pressure relief valves to release pressure that could build up if the vessel were subject to a fire. While the consequences of a major release of propane or a vessel BLEVE could be major, the vessel design standards mitigate the potential to a small enough probability of occurrence that the potential incident is classified as not significant. The probability of a major release and/or BLEVE by a pressure vessel has been estimated to be 8.0×10^{-7} per year (once in 1,250,000 years) (Arthur D. Little, 1995). For the two vessels this would equate to 1.6×10^{-6} per year (once in 625,000 years), which is classified as "rare" by Table 3.6-3. Because the propane tanks are located well inside the facility, a propane incident would at most cause "major" public safety consequences as defined in Table 3.6-3. Thus, a "major" propane incident would be highly unlikely and classified as not significant in accordance with Table 3.6-4.

Quicklime - Quicklime (calcium oxide) is a caustic solid material. It reacts violently with water and some other materials. To prevent these reactions, it is stored in a location protected from contact with water or acid, and no significant impact would occur.

Sodium Nitrate - Sodium nitrate is an oxidizer stored in solid form. It can explode if heated to over 1000°F. To prevent potential hazards, it is stored in a location separate from all combustible or readily oxidizable materials and no significant impact would occur.

Sulfur - Sulfur is stored as a solid or powder. It presents a slight fire hazard when exposed to heat or flame, or by chemical reaction with oxidizers. It can react violently with certain other materials including nitrates and phosphorous. To prevent potential hazards, it is stored separate from these materials and no significant impact would occur.

Sulfuric Acid - Sulfuric acid is stored in the tank area of the facility. Sulfuric acid is corrosive and toxic to tissue. Vapor or mist from sulfuric acid is irritating to the eyes, nose, and throat, and if inhaled may be toxic. It is not flammable, but it is a very powerful, acidic oxidizer which can ignite or even explode on contact with some materials including water. To prevent these problems, it is stored separately from nitrates and combustible materials, and is protected from contact with water. No significant impact would occur.

Trisodium Phosphate - Trisodium phosphate is stored as white crystals. It is a strong, caustic material that can cause burns to the skin. It presents no offsite hazards.

Other Materials - Incidents involving the hazardous materials listed above can result in the release of other toxic gases such as arsine, stibine, chlorine, hydrogen sulfide, and sulfur dioxide (see Table 3.6-1). These materials can be produced when various materials come in contact with each other and/or in the event the materials are heated to decomposition or become involved in a fire. It is difficult to determine the area that could be impacted by these type incidents, but it is possible that there could be offsite consequences. As noted above, the main mitigation measure in preventing these type incidents is the separation of materials that have the potential to interact. Quemetco realizes these potential impacts and separates the storage of hazardous materials as specified in their Emergency Preparedness and Contingency Plan. No significant impacts would occur.

Summary of Operations - While the facility does handle, store, and utilize hazardous materials that could result in offsite consequences up to the "major" category should a large incident occur, it is felt that the mitigation measures in place reduce the probability of these incidents occurring to the "rare" category resulting in a classification of not significant.

3.6.4 Mitigation Measures

No significant impacts have been identified and no mitigation is necessary.

3.6.5 Levels of Significance After Mitigation

No mitigation measures are required. Impacts remain less than significant.

3.7 HUMAN HEALTH AND SAFETY

In compliance with the requirements under a RCRA Part B Permit, and Human Health Risk Assessment (HHRA) is required to address the potential for adverse health effects from operation of the facility. The complete HHRA is incorporated within this DEIR by reference, with the main text of Volume 1 of the report included as Appendix C in this DEIR. The complete 4-volume document entitled "Human Health Risk Assessment in Support of the RCRA Part B Permit for Quemetco, Inc., City of Industry" dated September 29, 2000 prepared by Kleinfelder is available for public review through the DTSC.

Since the RCRA Part B permit is for an operating facility, the HHRA addresses the adverse health effects from current Quemetco operations. Thus, this section presents the results from the HHRA which represent both Existing Conditions and Impacts from the current facility operations.

In summary, most of the processing systems are essentially closed or controlled systems with the purpose of capturing emissions for recycling within the facility. The HHRA was conducted to assess the potential for adverse health effects from the residual emissions generated by facility operating processes.

The analyses were performed in accordance with a workplan approved by the DTSC and relied upon risk assessment guidance provided by the U.S. Environmental Protection Agency (EPA) "Risk Assessment Guidance for Superfund (RAGS), Volume 1, Human Health Evaluation Manual (Part A) - Interim Final (EPA/540/1-89/002)" (Kleinfelder 2000), and California Environmental Protection Agency (Cal-EPA) "Supplemental Guidance for Human Health Multimedia Risk Assessments for Hazardous Waste Sites and Permitted Facilities, July 1992" (Kleinfelder 2000).

3.7.1 Environmental Setting

3.7.1.1 Data Collection and Identification of Chemicals of Potential Concern

Prior to conducting the HHRA, chemicals of potential concern (COPCs) were identified. A COPC is a chemical that is potentially site-related, and whose data are of sufficient quality for use in the quantitative risk assessment. Quemetco COPCs were identified primarily by reviewing recent source test results and past source test results of emitting units and COPC lists from previous health risk assessments completed for this facility by Kleinfelder in 1996 in compliance with AB 2588 and Proposition 65. Other COPCs were identified by evaluating potential chemical emissions from specific operational activities at the facility. For example, common emissions from combustion sources, such as refinery burners, are organic hydrocarbons including formaldehyde and various polynuclear aromatic hydrocarbons (PAHs). A detailed listing of the COPCs are included as Table 1 in Appendix C of this DEIR. That table presents in detail the source of the operational activity, chemical, emission rate, and source of emission data as identified by Kleinfelder for each COPC. Operational activities not listed in that table (e.g., water treatment system and paste desulfurization) are either completely closed systems, or systems that are not expected to have emissions that would be transported off-site. Section 2 of the HHRA in Appendix C of this DEIR provides additional detail on data collection and COPC identification.

3.7.1.2 Exposure Assessment

The objective of the exposure assessment was to estimate the type and magnitude of exposure to the COPCs that may be released from the facility. The results of the exposure assessment are combined with chemical-specific toxicity information to characterize potential risks.

Land Use

The Quemetco Facility is located in the City of Industry, an area that was incorporated in the 1960s for industrial use. Hacienda Heights is located to the south and east of the facility, La Puente to the northeast, El Monte to the northwest, and Whittier to the southwest. Land use zoning classifications surrounding the facility include: 1) light to moderate industrial; 2) heavy industrial; 3) common residential; and 4) compact residential. The light to moderate industrial areas include warehouses, distribution centers, dry cleaners, auto body shops, and food processing facilities. The common residential areas are primarily composed of homes built in the 1950s on approximately 1/6 acre lots. The compact residential areas are composed of apartment complexes built in the 1970s.

Exposure Pathways

Exposure of humans to chemicals in the environment can occur through a variety of different mechanisms, or exposure pathways, based on the type of chemicals and the surrounding land use. An exposure pathway is the course taken from the source to the exposed individual and consists of four elements: (1) a source and mechanism of chemical release; (2) a retention or transport medium; (3) a point of potential human contact with the contaminated medium; and (4) an exposure route (e.g., ingestion) at the contact point. All four of these pathway elements must be present for exposure to occur; without exposure, risk does not exist.

The three primary exposure pathways are inhalation, ingestion, and dermal absorption. A primary exposure pathway is a route by which an individual is directly exposed to a chemical or physical agent in a contaminated medium. A secondary exposure pathway is a route by which an individual is exposed to a chemical via a food source in which the chemical has been assimilated (e.d., mother's milk, vegetation, meat, and fish). Exposure is based on the quantification of the daily intake rate of each chemical through each relevant pathway. The RAGS guidelines specify the types of pathways to be considered, intake equations for each pathway, and default values for each variable in those equations. Default parameters and exposure equations result in a numerical estimate of exposure to facility-emitted COPCs. Actual exposure to the general population is likely lower than estimated, because of conservative assumptions built into the default exposure parameters.

The following primary pathways were specifically evaluated for the Quemetco facility to determine effects for the resident child, resident adult, and industrial worker:

- Inhalation of airborne pollutants emitted from the facility;

- Incidental ingestion of airborne pollutants emitted from the facility that have deposited on soil; and

- Dermal absorption of airborne pollutants emitted from the facility that have deposited on soil.

The following secondary exposure pathways were evaluated for the resident child and adult:

- Ingestion of homegrown produce onto which airborne pollutants have deposited and into which the pollutants have accumulated; and

- Ingestion of milk from a mother who has been exposed to the pollutants via all of the above exposure pathways.

Other exposure pathways listed in RAGS and the HHRA Work Plan prepared by Kleinfelder such as ingestion of chemicals in tap water or ingestion of contaminated fish and seafood, were not evaluated because there are no drinking reservoirs, lakes, or streams supporting fish within the area that would be subject to deposition of the emissions from the facility.

Types of Chemicals

The majority of the chemicals presented in Table 1 of the HHRA (located in Appendix C of this DEIR) and emitted by the Quemetco facility are metals (e.g., cadmium, lead, and selenium). Semi-volatile organic compounds (SVOCs; e.g., PAHs) and volatile organic compounds (VOCs; e.g., benezene) are also emitted as a result of the combustion sources at the facility. Metals and SVOCs released to the atmosphere primarily adsorb to particulate matter that may deposit on soil and plants, and subsequently accumulate in plant tissue. Thus, metals and SVOCs were assessed in the ingestion and dermal absorption exposure pathways, as well as inhalation. VOCs generally have relatively high vapor pressures and are not deposited, but remain in the atmosphere as vapor. As such, VOCs were only assessed in the inhalation exposure pathway.

Modeling

The HHRA used air dispersion modeling to calculate annual average ground level concentrations (GLCs) at individual fenceline and off-site receptors of the COPCs released from Quemetco. A pollutant GLC is the ground level air concentration of such pollutant at the receptor point under evaluation, and is a function of the facility emission rate and a dilution factor provided by the dispersion modeling. Details of the air dispersion modeling are included in Section 3.1 of the HHRA in Appendix C. The air dispersion modeling followed applicable guidance provided in the Guidelines on Air Quality Models by the USEPA and suggestions from SCAQMD. The Industrial Source Complex Short Terms, Version 3 (ISCST3) model in Complex Terrain 1 screening mode was used to evaluate dispersion of contaminants in areas of elevated terrain (i.e., Complex Terrain, or terrain having a ground elevation higher than the exhaust stack height).

A 13-square kilometer receptor "course grid" was established for the Quemetco facility with 500-meter spacing centered approximately on the facility. The purpose of the grid was to assist in defining the extent of downwind effects attributable to potential facility emissions and to help define placement of additional receptors on a finer resolution. This finer resolution was based on a 3-square kilometer grid with receptors spaced at 100-meter intervals. Fenceline receptors were included in the modeling runs to estimate industrial worker risk and chronic hazard along the facility fenceline.

The specifics of the dispersion modeling, including equations and calculations, are detailed in Section 3.2.4 of the HHRA which is included in Appendix C of this DEIR.

3.7.2 Thresholds of Significance

Cancer Risk

Cancer risk estimates represent the probability that a person will develop cancer of any kind in a lifetime because of exposure to the carcinogens under evaluation. The probability of developing cancer as a result of exposure to a single carcinogen increases with dose, and will also increase if exposure to other carcinogens occurs.

Cancer caused by chemical carcinogens is treated as a nonthreshold effect for regulatory purposes. Therefore, there is theoretically no safe exposure level for carcinogenic effects. Zero risk cannot be achieved because of the presence of natural carcinogenic chemicals in the environment. Cancer risk estimates generated by a risk assessment therefore must be evaluated in terms of acceptable risk. For carcinogens, the USEPA's National Contingency Plan guidelines consider an upper-bound lifetime cancer risk between $1x10^{-6}$ (1 in 1,000,000) unconditionally acceptable, and an upper-bound lifetime cancer risk between $1x10^{-6}$ and $1x10^{-4}$ (1 in 10,000) generally acceptable. Cal-EPA considers an excess cancer risk of $1x10^{-5}$ (1 in 100,000) as acceptable.

Chronic Adverse Health Effects

The potential for chronic, noncarcinogenic health effects at maximum exposed individual (MEI) locations was estimated by dividing the total exposure dose for each chemical by the chemical-specific reference dose, resulting in chemical and pathway specific hazards quotients. These hazard quotients were summed across both chemicals and exposure pathways to develop a Hazard Index (HI). When the HI is less than unity (less than 1.0), it is assumed that no adverse health effects will result from the estimated exposure.

Blood Level Concentrations

The blood level model developed by Cal-EPA DTSC (Leadspread) was used to estimate the blood level concentrations for the MEIs. Cal-EPA's accepted regulatory threshold of concern is 10 µg/dL (micrograms per deciliter).

3.7.3 Health Effects Impacts

Receptor Locations

Using the GLCs estimated by modeling, cancer risk and chronic hazard indices were calculated at the receptor locations for resident child, resident adult, and industrial worker exposure scenarios. The location of the maximum exposed individual (MEI) was identified; however, because residents do not actually reside at this MEI location, it is referred to as the "hypothetical resident" MEI location. Therefore, the receptor of highest cancer risk/chronic effects in an actual residential area was also identified as the "actual resident" MEI location. The MEI locations are illustrated on Figure 3.7-1. The industrial worker and hypothetical resident MEI is located approximately 300 feet north of the facility fenceline; no residences are near this location. The actual resident MEI is located approximately 1,000 feet southwest of the facility fenceline.

Evaluation of Cancer Risk and Chronic Noncarcinogenic Health Effects

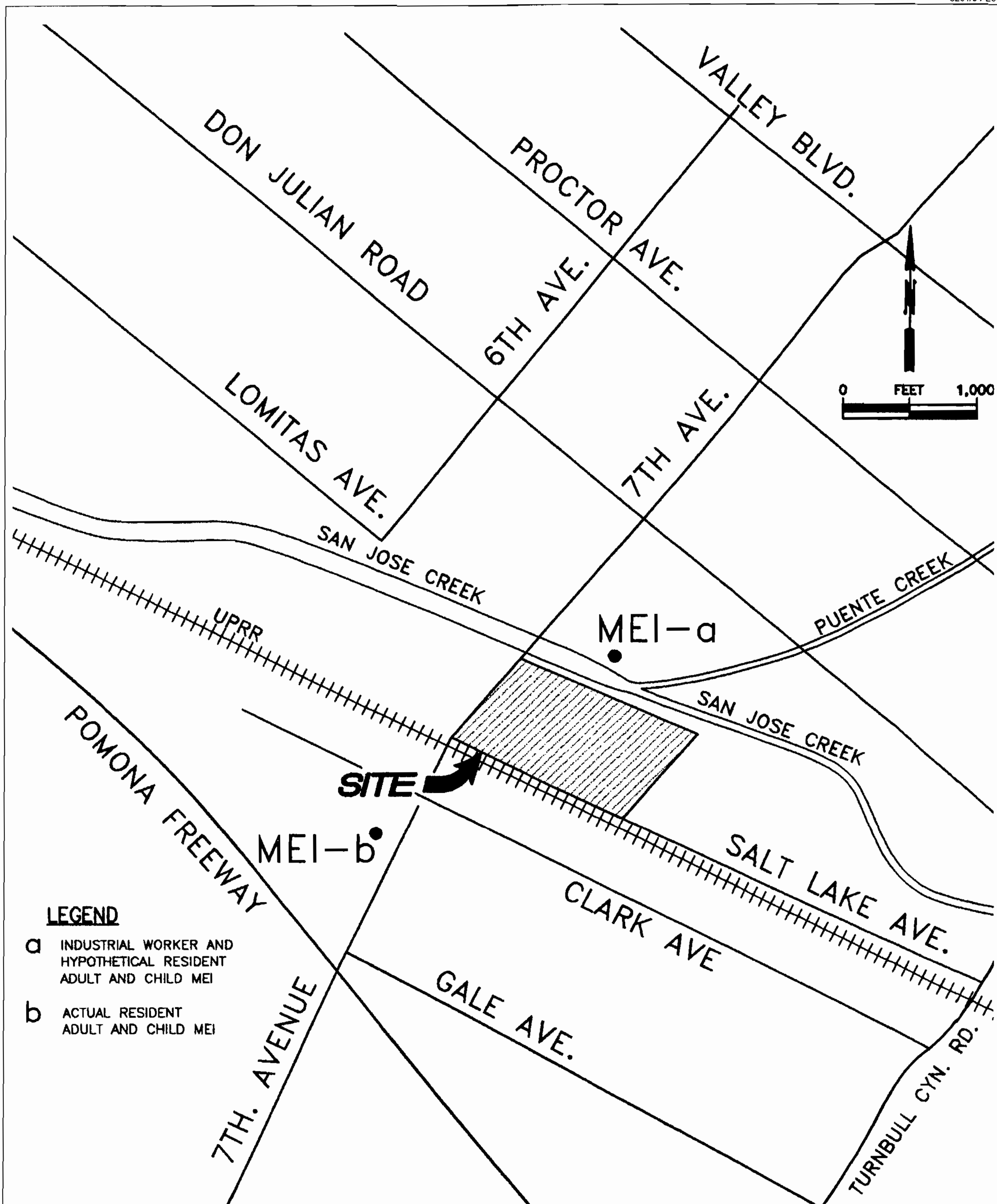
At the MEI locations, the excess lifetime cancer risk and chronic hazard indices (HI) for the hypothetical resident child and adult, actual resident child and adult, and industrial worker are summarized in Table 3.7-1. Full details on results are contained in Section 5 of the HHRA in Appendix C of this DEIR.

Table 3.7-1
Summary of Excess Lifetime Cancer Risk and
Chronic Hazard Indices at the MEI Locations - Complex Terrain

Receptor Type	Excess Lifetime Cancer Risk	Chronic Hazard Index
Hypothetical Resident Child	--- *	1.19
Hypothetical Resident Adult	5×10^{-5} (5 in 100,000)	1.63
Actual Resident Child	---	0.70
Actual Resident Adult	2×10^{-5} (2 in 100,000)	0.97
Industrial Worker	2×10^{-5} (2 in 100,000)	0.25

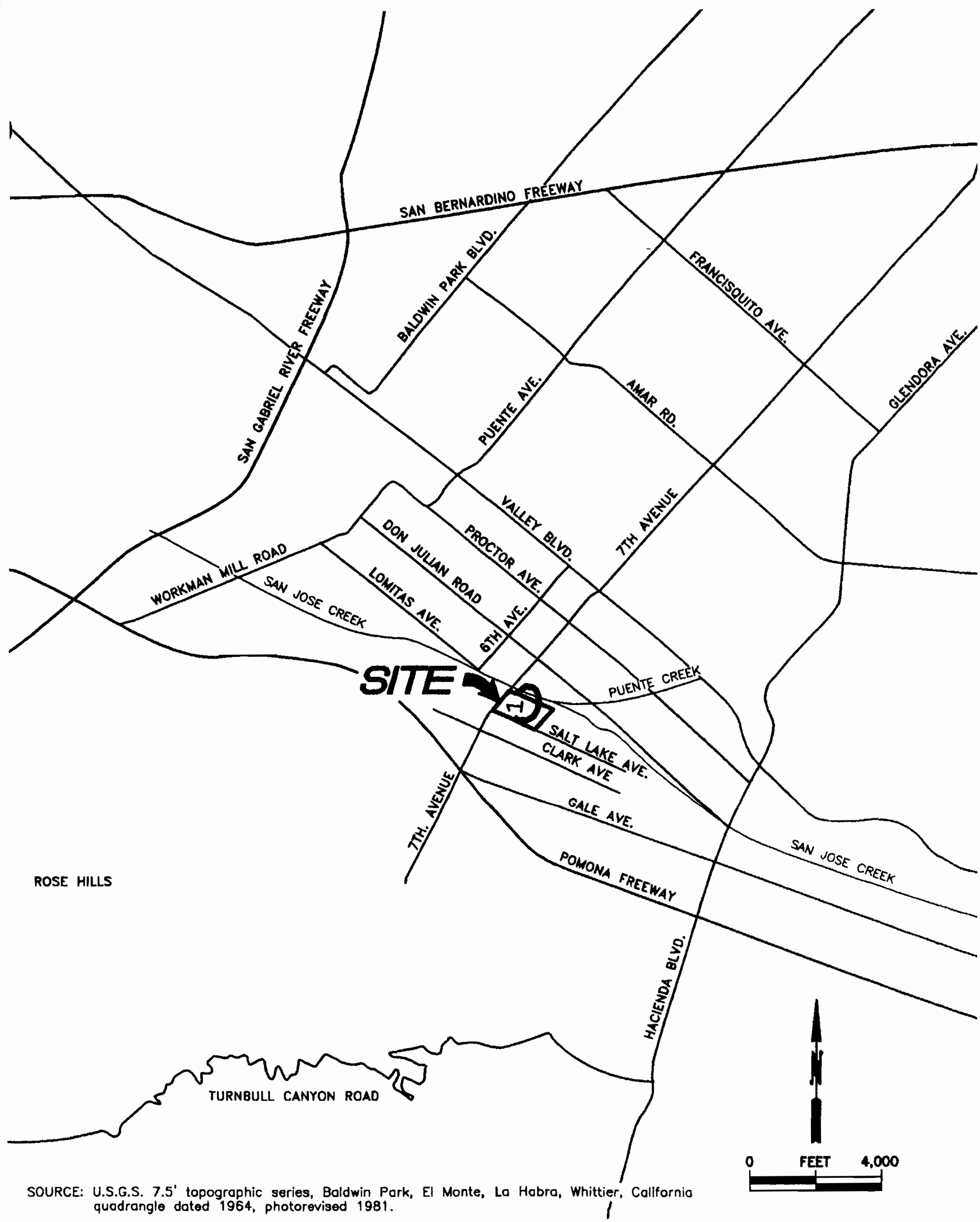
Note: * -- Currently available risk thresholds do not address child exposure. Therefore, cancer risk due to exposure during the first six years of life (child exposure) is added to the adult risk due to exposure over 24 years, for a total adult exposure duration of 30 years.

Exposure to lead accounts for 43 percent (12 percent due to inhalation, and 29 percent due to ingestion of produce) of chronic hazard to the hypothetical resident child MEI. Figure 3.7-2 illustrates the extent of the area in which the resident child hazard index, summed across all chemicals, exceeds a value of 1.0. In addition to summing HIs across all chemicals, hypothetical resident child HIs for each chemical were segregated and summed by target organ systems, as shown in Table 3.7-2. Organ specific HIs ranged from 0.09 for skin to 0.9 for CNS / PNS. Although the hypothetical resident child HI exceeds 1.0 when summed across all chemicals, when segregated and summed by target organ systems the hypothetical resident child HI does not exceed the threshold value of 1.0. In addition, the actual resident child HI summed across all chemicals is 0.70. Therefore, adverse health effects to hypothetical and actual residential children are not likely to result from exposure to facility emissions.



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

LOCATION OF OFF-SITE MAXIMUM EXPOSED INDIVIDUALS (MEI) (COMPLEX AND FLAT TERRAIN)
Figure 3.7-1



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

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RESIDENT CHILD HAZARD INDEX ISOPLETH (COMPLEX TERRAIN)
Figure 3.7-2

Table 3.7-2
Summary of Chronic Hazard Index Results by Organ System [1]
Hypothetical Resident Child MEI [2] - Complex Terrain

AFFECTED ORGAN SYSTEM								
Chemical	CV/BL [3]	CNS/PNS [4]	Immun [5]	Kidn [6]	GI/LV [7]	Repro [8]	Resp [9]	Skin
Acetaldehyde							0.0028	
Acrolein							0.0015	
Antimony	0.260			0.026	0.026	0.026	0.026	
Arsenic		0.021					0.021	0.021
Benzene		0.0071						
Beryllium							0.0035	
Cadmium				0.035			0.035	
Chromium (hexavalent)				0.091	0.091		0.091	
Copper							0.0056	
I.4-Dioxane					0.000024		0.000024	
Formaldehyde							0.0043	
Hydrogen sulfide		0.094						
Lead	0.510	0.510	0.510	0.510		0.510		
Manganese		0.190					0.190	
Mercury	0.074	0.074		0.074	0.074		0.074	
Naphthalene	0.0037							
Nickel			0.029	0.029			0.029	
PAHs			0.000016		0.000016	0.000016		
Propylene		0.00051		0.00051	0.00051	0.00051	0.00051	0.00051
Selenium							0.0086	
TCDD total			0.071		0.071	0.071		0.071
Toluene		0.000001				0.000001		
Xylenes						0.0000008	0.0000008	
Zinc	0.012						0.012	
HI [10] by Organ System	0.63	0.90	0.61	0.77	0.26	0.61	0.50	0.09

1 - Source for target organ systems are Kleinfelder 2000
2 - Maximum exposed individual
3 - Cardiovascular or blood system
4 - Central or peripheral nervous system
5 - Immune system
6 - Kidney
7 - Gastrointestinal system and liver
8 - Reproductive system
9 - Respiratory system
10 - Hazard index is the sum of chemical hazard quotients (from Table 10 of the HHRA) for each organ system.
Blank cells indicate chemical does not affect that organ system.

Inhalation of hexavalent chromium accounts for between approximately 23 percent (i.e., actual resident) and 50 percent (i.e., hypothetical resident) of the total cancer risk to the resident adult MEI. Actual and hypothetical resident adult MEI cancer risk are both within the USEPA National Contingency Plan's generally acceptable range of upper-bound lifetime cancer risk (i.e., 1 in 10,000 to 1 in 1,000,000). Figure 3.7-3 depicts the cancer risk isopleth for resident adult exposure.

Exposure to lead accounts for 41 percent (13 percent due to inhalation, and 25 percent due to ingestion of produce) of chronic hazard to the hypothetical resident adult MEI. Figure 3.7-4 illustrates the extent of the area in which the resident adult hazard index, summed across all chemicals, exceeds a value of 1.0. As for the hypothetical resident child, HIs were segregated and summed by target organ system as shown in Table 3.7-3. Organ specific HIs ranged from 0.13 for skin and 1.2 for the CNS / PNS. However, adverse health effects to actual residential adults are not likely to result from exposure to facility emissions, because the actual resident adult MEI HI is 0.97, which is less than the threshold value of 1.0.

Inhalation of hexavalent chromium accounts for 53 percent[4] of the total cancer risk to the industrial worker MEI. Figure 3.7-5 depicts the cancer risk isopleth for industrial worker exposure. Exposure to lead accounts for 28 percent (17 percent due to inhalation, and 9 percent due to ingestion of soil) of chronic hazard to the industrial worker MEI chronic hazard index.

Evaluation of Blood Lead Concentrations

Estimated 95th percentile blood lead concentrations at the MEI locations were less than the regulatory threshold of concern, 10 µg/dL (Kleinfelder 2000), for the hypothetical resident child and adult, actual resident child and adult, and industrial worker. Estimated blood lead concentrations at the hypothetical and actual resident child MEIs were similar to actual blood lead measurements, collected in 1992 and 1993, of children residing near the Quemetco facility (Kleinfelder 2000). In the Wohl study, measured blood lead concentrations were less than 10 µg/dL; 62 percent of the children had measured blood lead levels less than 5 µg/dL.

The blood lead estimation is another type of hazard calculation, as most human health effects data are based on blood lead concentrations rather than external dose (Kleinfelder 2000). The pharmacokinetic model used to calculate blood lead concentrations, which takes into account such factors as the absorption, transport, redistribution, and elimination of lead within the body, provides an accurate estimate of lead body burdens which, in turn, can be compared to blood lead levels associated with specific adverse health affects (Kleinfelder 2000). Therefore, although the hypothetical resident child hazard index, summed across all chemicals, exceeded 1.0 (mainly due to lead exposure), calculated blood lead levels of the hypothetical resident child MEI were significantly less than (60 percent) the threshold level of µg/dL, as accepted by the U.S. Food and Drug Administration and the Centers for Disease Control (Kleinfelder 2000).

Sensitive Receptors

A sensitive receptor analysis was conducted to identify hospitals, nursing homes, schools, day care centers, and outdoor public swimming pools within six kilometers of the facility. A list of these receptors is included in Appendix H of the HHRA. The following were identified:

- Thirty-three pre-schools/kindergartens;
- Ninety-six elementary/secondary schools;
- Five outdoor swimming pools;
- Seventeen nursing homes;
- Six hospitals, and,
- Fifteen child/day care centers.

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[4] The HHRA assumes that all chromium is hexavalent chromium as a default value in order to achieve a conservative estimate.

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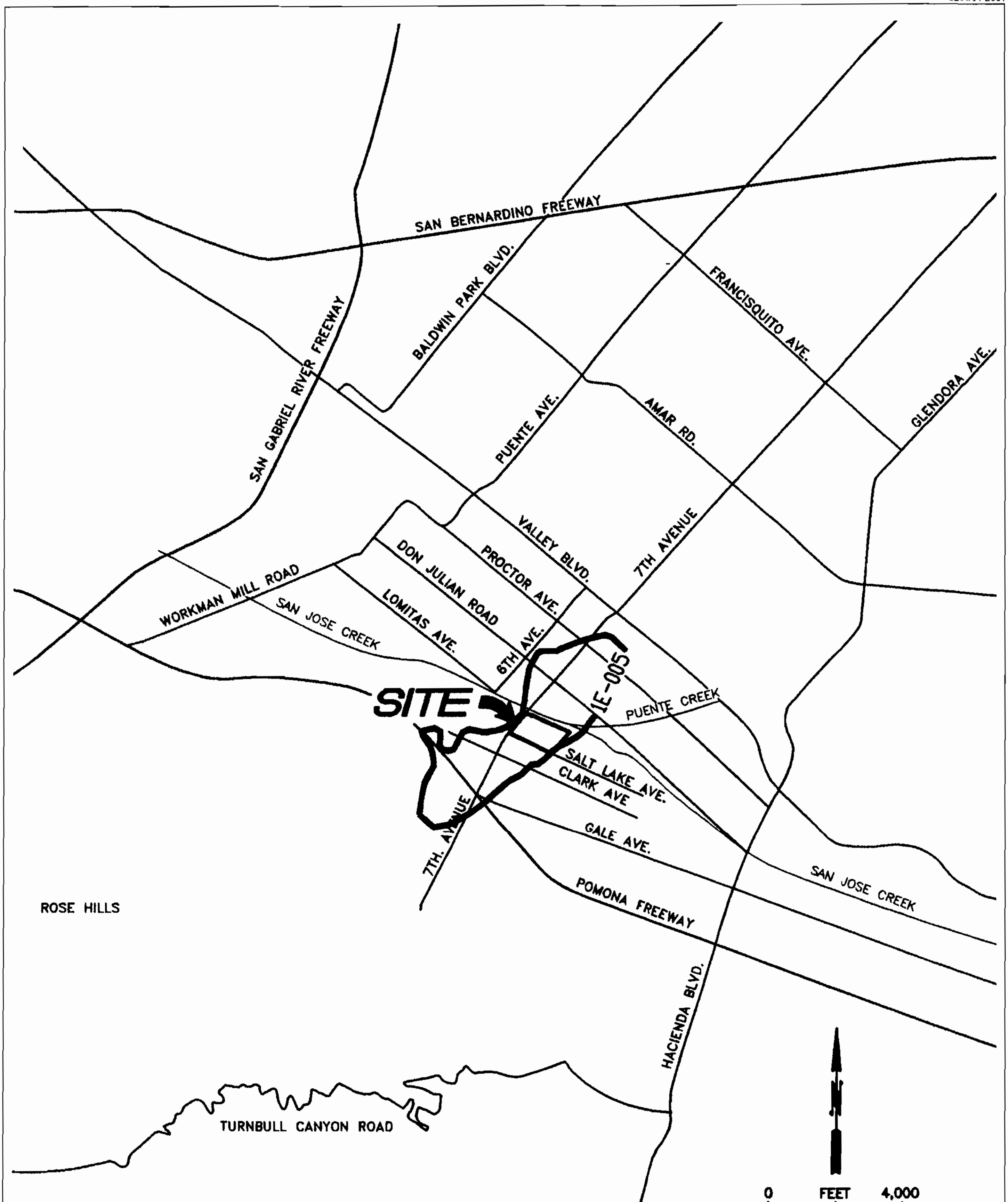

SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

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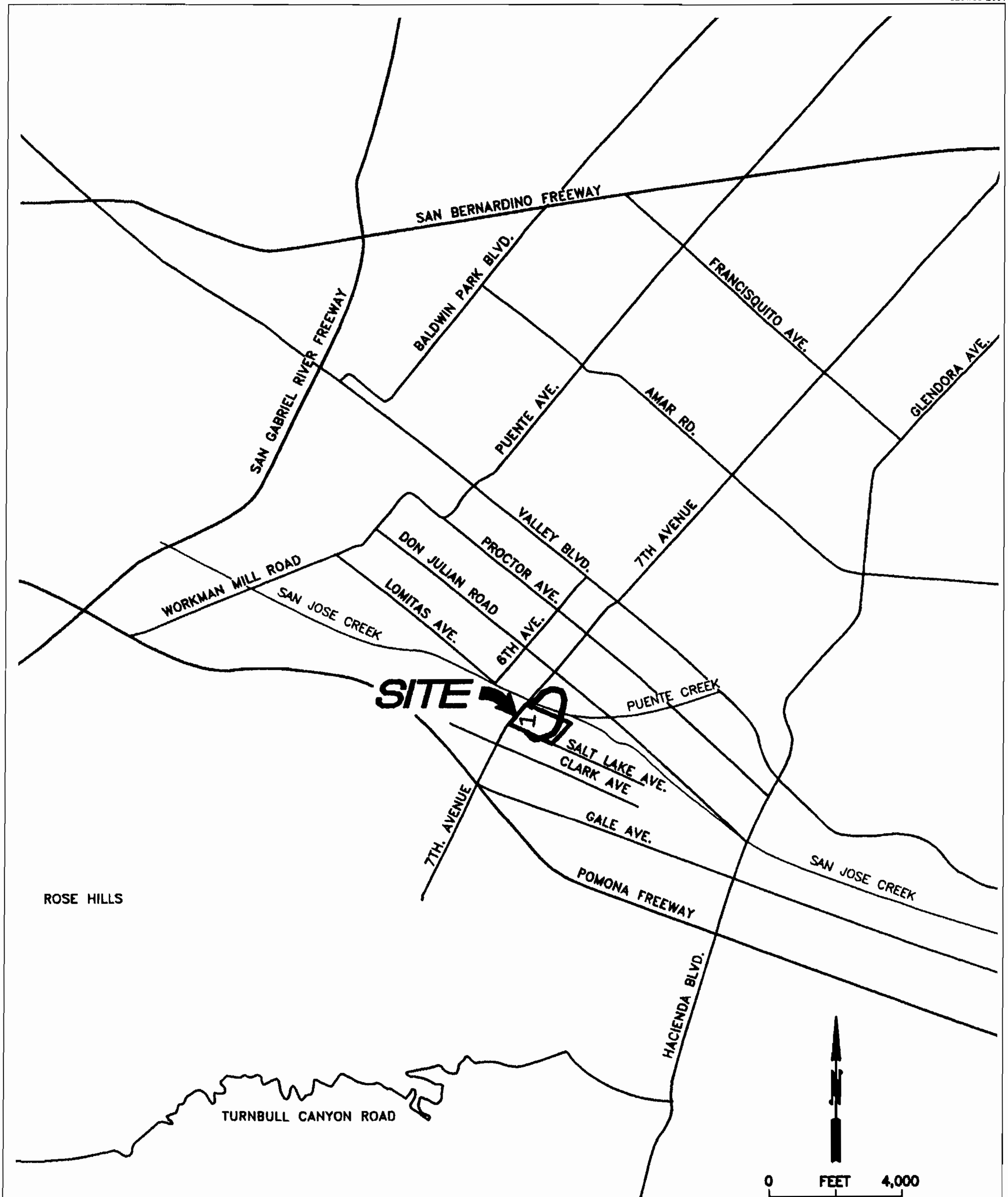
RESIDENT ADULT CANCER RISK ISOPLETH (COMPLEX TERRAIN)
Figure 3.7-3



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

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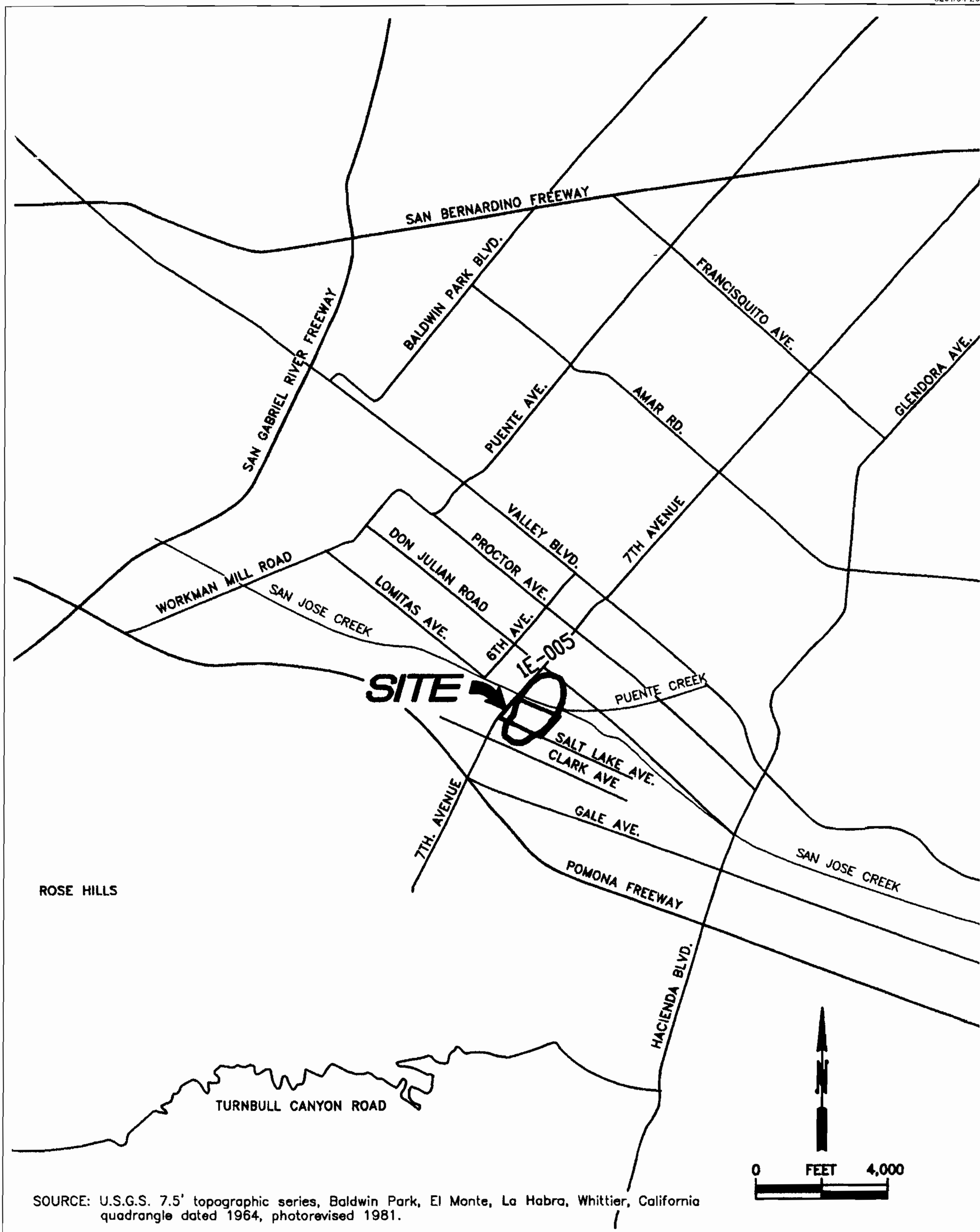
RESIDENT ADULT HAZARD INDEX ISOPLETH (COMPLEX TERRAIN)
Figure 3.7-4



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

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INDUSTRIAL WORKER CANCER RISK ISOPLETH (COMPLEX TERRAIN)
Figure 3.7-5

Table 3.7-3
Summary of Chronic Hazard Index Results by Organ System [1]
Hypothetical Resident Adult MEI [2] - Complex Terrain

	AFFECTED ORGAN SYSTEM							
Chemical	**CV/BL [3]**	**CNS/PNS [4]**	**Immun [5]**	**Kidn [6]**	**GI/LV [7]**	**Repro [8]**	**Resp [9]**	**Skin**
Acetaldehyde							0.004	
Acrolein							0.0022	
Antimony	0.037			0.037	0.037	0.037	0.037	
Arsenic		0.029					0.029	0.029
Benzene		0.010						
Beryllium							0.005	
Cadmium				0.051			0.051	
Chromium (hexavalent)				0.130	0.130		0.130	
Copper							0.0081	
I.4-Dioxane					0.000034		0.000034	
Formaldehyde							0.0061	
Hydrogen sulfide		0.130						
Lead	0.670	0.670	0.670	0.670		0.670		
Manganese		0.270					0.270	
Mercury	0.110	0.110		0.110	0.110		0.110	
Naphthalene	0.0052							
Nickel			0.041	0.041			0.041	
PAHs			0.000017		0.000017	0.000017		
Propylene		0.00063		0.00063	0.00063	0.00063	0.00063	0.0063
Selenium							0.012	
TCDD total			0.099		0.099	0.099		0.099
Toluene		0.0000015				0.0000015		
Xylenes						0.0000011	0.000001	
Zinc	0.018						0.018	
HI [10] by Organ System	0.84	1.22	0.81	1.04	0.37	0.81	0.71	0.13

1 - Source for target organ systems are Kleinfelder 2000
2 - Maximum exposed individual
3 - Cardiovascular or blood system
4 - Central or peripheral nervous system
5 - Immune system
6 - Kidney
7 - Gastrointestinal system and liver
8 - Reproductive system
9 - Respiratory system
10 - Hazard index is the sum of chemical hazard quotients (from Table 10 of the HHRA) for each organ system.
Blank cells indicate chemical does not affect that organ system.

None of the identified schools, child care centers, or outdoor swimming pools are located within the 1.0 Child Hazard Index isopleth (refer to Plate 9a of the HHRA). No nursing homes are located within the 1×10^{-5} (1 in 100,000) adult risk isopleth (refer to Plate 7a of the HHRA). None of the hospitals located six kilometers from the facility are within the 10^{-5} adult risk isopleth.

3.7.4 Mitigation Measures

No significant impacts were identified. Therefore, no mitigation measures are required.

3.7.5 Levels of Significance After Mitigation

No mitigation measures are required. Impacts remain less than significant.

3.8 PUBLIC SERVICES

3.8.1 Environmental Setting

3.8.1.1 Police Services

The project site is served by the Los Angeles County Sheriff's Department. The City of Industry Sheriff's Station is located at 150 North Hudson Avenue, one block north of Valley Boulevard, approximately two miles from the project site. The Industry Station provides police services to the City of Industry, the City of La Puente, and the unincorporated communities of Hacienda Heights, La Habra, Bassett, West Valinda, Valinda and East Valinda. In 1999, this area encompassed approximately 65 square miles and a population of approximately 183,000 people (Tucker, personal communication, 2001). The City of Industry Sheriff's Department provides services including court security, custody operations, correctional services, detective investigations, aero fleet, emergency operations, field operations, SWAT teams, K-9 services, special motorcycle detail, and risk management.

In April of 2001, the City of Industry Sheriff's Station employed a total of 267 personnel: 209 sworn and 58 non-sworn personnel. The 209 sworn personnel consist of approximately 177 deputies, 24 sergeants, seven lieutenants and one captain (Tucker, personal communication, 2001).

Average response times in the City of Industry are approximately 4.5 minutes for emergency calls, 8.5 minutes for priority calls, and 21.5 minutes for routine calls. Emergency calls are those of extreme urgency and therefore require the use of red lights and sirens. Priority calls are those calls that require the officers to respond immediately, however these calls do not require the use of red lights and sirens. Driving time to the project site from the Industry Station is estimated to be approximately 8 minutes (Binkley, letter, 2001).

3.8.1.2 Fire Services

The project site is served by the County of Los Angeles Fire Department. The project site is within the Fire Station 43 district, which is responsible for enforcing the fire code and conducting inspections of structures within its jurisdiction. The station's engines are also expected to be the first to the scene of an emergency located in its district (Kolker, personal communication, 2001).

Fire Station 43 is located at 921 South Stimson Avenue in the City of Industry, approximately 1½ blocks north of the Pomona Freeway (SR60). Fire Station 43 is located approximately 3 miles from the project site and has an average response time of approximately 7.1 minutes. Fire Station 43 employs four fire personnel and five hazardous materials personnel (Leininger, letter, 2001). Members of the Hazardous Materials Squad are specially trained to recognize toxic substances released, for example, during a traffic accident or from an industrial plant. Members of the Hazardous Materials Squad are able to identify toxic liquids and gases and have special equipment and training in neutralizing hazardous substances (Kolker, personal communication, 2001).

There are five fire stations located near the project site. Fire station locations, distance to the project site, anticipated response times, and number of personnel are described in Table 3.8-1.

In urban areas, first engine response time should be within 5 minutes. Paramedic response time should be within 8 minutes. Truck response time should be within 10 minutes (Leininger, letter, 2001). Existing equipment, manpower, and facilities in the project area are not sufficient to meet these goals (Leininger, letter, 2001). A tentative plan for a new fire station located in the western portion of the City of Industry is underway. However, the planning process is in its preliminary stages and a new fire station would not likely be constructed for some time (Kolker, personal communication, 2001).

Table 3.8-1
Fire Station Location and Equipment

Fire Station	Location	Distance to Project Site (miles)	Anticipated Response Time (minutes)	Number of Staff
Station 43	921 S. Stimson Avenue, Industry	3.0	7.1	9*
Station 87	140 S. Second Avenue, Industry	2.3	7.7	4
Station 91	2691 S. Turnbull Canyon Road, Hacienda Heights	2.7	11.0	4**
Station 118	17056 Gale Avenue, Industry	4.1	9.2	4
Station 26	15336 E. Elliot Avenue, La Puente	3.1	12.0	2

* Station 43 employs a 5-person Hazardous Materials Squad, in addition to 4 fire personnel.
** Station 91 has an assessment engine only, with partial paramedic capabilities.
Sources: Leininger, letter, 2001; Kolker, personal communication, 2001.

3.8.2 Thresholds of Significance

According to the CEQA Guidelines, a project will normally have a significant adverse effect on public services if it will:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of these public services:

    - Fire protection
    - Police protection

3.8.3 Environmental Impacts

Operation

Police Services

The proposed project is the continuation of an existing use and would not result in increased demand for police services above existing levels. The project does not involve physical changes that would affect police response times or other performance objectives. No impact would result.

Fire Services

The Los Angeles County Fire Department has established a five-minute standard as the ideal first engine response time for urban areas. As shown in Table 3.8-1, the fastest response time to the project site is approximately 7.1 minutes from Fire Station 43. This is below the ideal response time standard. The LACFD has stated that additional equipment, manpower and facilities are currently needed in the project area. Thus, existing fire department resources are inadequate to meet current service demands and the need for new facilities has already been established. The proposed project is the continuation of an existing use and would not increase the demand for fire and emergency services above current levels. Impacts to fire services resulting from the continuation of an existing use are considered less than significant.

Closure and Post-Closure

The Closure Plan identifies the steps necessary to completely close the facility at the end of its intended operating life. Implementation of the Closure and Post-Closure Plans would result in removal of many of the onsite facilities and some worker trips to the Quemetco site. Following full closure of the facility, monitoring of the site will occur for thirty years. The ultimate use of the facility following closure and post-closure is unknown.

Closure and post-closure activities would not increase demand for fire and police services above current levels and would not result in significant adverse impacts.

3.8.4 Mitigation Measures

No significant impacts were identified. Therefore, mitigation measures are not required.

3.8.5 Levels of Significance After Mitigation

No mitigation measures are required. Impacts remain less than significant.

3.9 TRANSPORTATION AND TRAFFIC

3.9.1 Environmental Setting

3.9.1.1 Regional Setting

Three regional freeways provide access to City of Industry and the project site. See Figure 2-1 for a regional location map. The Pomona Freeway (SR 60) is located approximately ½ mile south of the project. This east-west freeway is the principal regional road serving the City of Industry and provides the most direct freeway access to the project site via ingress and egress at Seventh Avenue. The Pomona Freeway provides access to the City from all sections of the Los Angeles metropolitan region and has interchanges providing north-south distribution at most major and secondary arterial crossings in the City. There are seven Pomona Freeway interchanges within the City. The north-south San Gabriel River Freeway (I-605) is located approximately 3½ miles west of the project site. This freeway runs along the westerly perimeter of the City and connects the City of Industry with other regional freeways. The City of Industry is served by six San Gabriel River Freeway interchanges. The San Bernardino Freeway (I-10) is located approximately 3 miles north of the project site and provides access to the City via seven interchanges (City of Industry, 1971b).

3.9.1.2 Local Setting

The City of Industry is served by several major roadways and local streets. The major north-south roadways in the vicinity of the project site include Workman Hill Road/Puente Avenue, Seventh Avenue/Sunset Avenue, Turnbull Canyon Road, and Hacienda Boulevard. The east-west roadways providing access to the project site include Salt Lake Avenue, Gale Avenue, SR-60, and Valley Boulevard. The following is a description of some of these major roadways. See Figure 2-2 for a project vicinity map.

North-South Roadways

Seventh Avenue is a four-lane major arterial highway. This roadway provides access to the project site located at the Seventh Avenue and Salt Lake Avenue intersection. Traffic signals control the flow of traffic at this intersection. Southerly traffic on Seventh Avenue is equipped with turn-pockets for traffic turning east on Salt Lake Avenue toward the facility (Quemetco Inc, 2000). Seventh Avenue crosses Valley Boulevard, Temple Avenue, Merced Avenue and Cameron Avenue, all of which are major east-west roadways within the City. Seventh Avenue also connects the project site to the I-10 and SR-60 regional freeways. According to the City of Industry Circulation Element, the ultimate improvement goal for Seventh Avenue is six lanes (City of Industry, 1971b).

Hacienda Boulevard is a major roadway that connects the City of Industry to the City of La Puente, the City of West Covina and the communities of Hacienda Heights and La Habra Heights. This roadway crosses all major east-west roadways within the City of Industry and connects with two of the three regional freeways providing access to the City of Industry.

Workman Hill Road/Puente Avenue is a roadway that runs nearly parallel to I-605. This roadway connects the City of Industry with the City of Baldwin Park to the north and the City of Whittier and the Avocado Heights community located to the south. This roadway crosses major east-west roadways including Valley Boulevard and provides access between the project site and the I-10 and SR-60.

Turnbull Canyon Road is a two-lane secondary arterial highway (City of Industry, 1971b) that runs parallel to Seventh Avenue and connects to Salt Lake Avenue. Turnbull Canyon Road runs south from Valley Boulevard through the City of Industry and connects the adjacent Hacienda Heights community to the project area. This roadway also provides access between the project site and SR-60. According to the City of Industry Circulation Element, the ultimate improvement goal for Turnbull Canyon Road is four lanes (City of Industry, 1971b).

East-West Roadways

Valley Boulevard is a four-lane arterial highway located approximately one mile north of the project site. Valley Boulevard crosses major north-south roadways within the vicinity of the project site, connecting east-west travelers to Seventh Avenue, as well as to the I-605 and I-10 regional freeways. Valley Boulevard connects the City of Industry to the adjacent communities of Basset and Avocado Heights, the Cities of El Monte and South El Monte to the northwest, and the City of La Puente to the east.

SR-60 is the major east-west roadway providing direct regional access to the project site. This highway provides ingress and egress at Seventh Avenue, less than ½-mile south of the project site.

Salt Lake Avenue is a two-lane roadway that provides direct access to the project site. The Quemetco facility's main gate is located on Salt Lake Avenue approximately 300 feet east of the Seventh and Salt Lake Avenue intersection.

Gale Avenue is a four-lane roadway located approximately ½-mile south of the project site. Gale Avenue begins at Seventh Avenue and runs east, crossing Seventh Avenue, Turnbull Canyon Road, and Hacienda Boulevard. Gale Avenue terminates at South Azusa Road in the eastern portion of the City of Industry.

3.9.1.3 Traffic Generated by Existing Operations at the Quemetco Facility

The Quemetco facility employs approximately 160 people. The facility operates 24 hours a day and seven days a week. Employees work in three shifts: 7:00 a.m. to 4:00 p.m., 3:00 p.m. to 11:00 p.m., and 11:00 p.m. to 7:00 a.m. (Quemetco Inc, 2000). Assuming that each employee generates a maximum of four trips per day (to work, from work, lunch break), the operation of the plant results in a total of approximately 640 employee trips per day. These trips are distributed throughout the day, concentrated at shift start and end times.

The Quemetco facility receives approximately 50 truckloads per day of incoming raw materials (batteries, scrap, etc.) and transports approximately 25 truckloads per day of outgoing materials such as finished goods, solid wastes, plastic, etc. (Quemetco Inc, 2000). Two trips (to and from the facility) for each incoming and outgoing truckload is assumed, resulting in an estimated 150 truck trips per day. All roads surrounding the facility are rated to carry load-bearing trucks.

An estimated total of 790 trips are associated with existing operations at the Quemetco facility. The most recent traffic counts for the surrounding roadways/intersections were conducted in 1997 (Hull, personal communication, 2001). The Quemetco facility was in operation in 1997 at the same operational capacity as today. Therefore, the 1997 counts include traffic generated by the Quemetco facility as described above.

Shipping and receiving personnel, the production supervisor and laboratory personnel control traffic into and out of the plant. The main gate at the southwest end of the facility is the primary point of access. Vehicles enter the facility through a remote controlled gate where visitors and shipments are logged in and out (Quemetco Inc, 2000).

A parking lot is located in the southwest corner of the Quemetco facility. The parking lot contains approximately 100 parking spaces for employees and visitors (Quemetco Inc, 2000).

3.9.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse effect on transportation and traffic if it will:

- Cause an increase in traffic which is substantial in relation to existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)
- Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways
- Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)
- Result in inadequate emergency access
- Result in inadequate parking capacity
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)

The following section, 3.9.3 Environmental Impacts, is organized to address each significance threshold.

3.9.3 Environmental Impacts

Operations

Increase Traffic or Exceed a Level of Service Standard

The proposed project is the continuation of existing operational levels at the Quemetco facility, and no increases in the number of vehicle trips generated will occur. The project would not result in an increase in the existing volume of traffic on adjacent roadways. Adjacent roadways are already used for the transportation of materials to and from the Quemetco facility. The proposed project would not result in the need for changes to existing road infrastructure.

Because project-generated traffic trips are already incorporated into traffic counts and LOS assessments for the project area, the project would not result in any increases in an LOS standard. Typical operations would continue to result in a total of approximately 790 vehicle trips per day, as described in Section 3.9.1 Environmental Setting, and no impact would result.

Traffic Hazards

The project would not involve physical changes to the project site or adjacent roadways, and no new or increased hazards due to a design feature would result. The project is the continuation of an existing use and therefore would not introduce new incompatible uses to the area. No impact would result.

Emergency Access

The project would not involve physical changes to the project site or adjacent roadways. The project would not result in an increase in traffic volumes over existing levels or changes to existing access routes. Therefore, the project would have no impact to existing emergency access routes. No impact would result.

Parking Capacity

Continuation of existing operations would not result in an increase in employees that would increase the demand for parking. Employees at the Quemetco facility would continue to use the onsite parking lot, which contains approximately 100 spaces. This lot is considered adequate to accommodate the maximum number of employees required to be on the project site at any given time. No impact would result.

Alternative Transportation

The project would not involve changes to the existing alternative transportation system. No conflicts with adopted policies, plans or programs supporting alternative transportation would result.

Closure and Post-Closure

The activities associated with closure and post-closure include decontamination of facility equipment and structures, sampling and analysis, and removal of all hazardous waste residue and contaminated soil. Groundwater monitoring and run-on and run-off control are included in both closure and post-closure activities. Following full closure of the facility, monitoring of the site will occur for thirty years. The ultimate use of the facility following closure and post-closure is unknown.

During implementation of the Closure Plan, fewer employees would be access the site on a daily basis, thus traffic associated with closure would be lower than current levels. Implementation of the Post-Closure plan would involve monitoring on-site. Fewer people would be accessing the site on a regular basis, and associated traffic would be lower than current levels. No significant impacts to transportation or traffic would occur during closure and post-closure activities.

Because the ultimate use of the facility following post-closure is unknown, impacts to traffic and transportation cannot be estimated.

3.9.4 Mitigation Measures

No significant impacts were identified. Therefore, mitigation measures are not required.

3.9.5 Levels of Significance After Mitigation

No mitigation measures are required. Impacts remain less than significant.

SECTION 4.0 - CUMULATIVE IMPACT ANALYSIS

4.1 CUMULATIVE SETTING

This section discusses the cumulative effects of the Proposed Project. Section 15130(a) of the CEQA Guidelines requires a discussion of cumulative impacts of a project "when the project's incremental effect is cumulatively considerable." The CEQA Guidelines, Section 15355, define a cumulative impact as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulatively considerable impacts are defined in Section 15065(c) of the CEQA Guidelines as "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

CEQA allows two types of approach to the analysis of cumulative impacts. Section 15130(b)(1) allows the use of either:

1) A list of past, present, or probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

2) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

Because the Proposed Project involves permitting continued operation of an existing facility, the analysis of cumulative impacts will differ from either of these typical types of analysis.

4.2 CUMULATIVE ANALYSIS

The Proposed Project does not involve any changes in current operations at the Quemetco facility. The facility has been in operation continuously since 1959 and pre-dates the City of Industry General Plan. Quemetco has a Conditional Use Permit (CUP) with the City. The CUP did not require an accompanying CEQA document, since Quemetco is "grandfathered" within the City and is considered a conforming use. Conditions of the CUP focus on exterior items such as restrictions on off-street parking, upkeep of exterior surfaces, trash control, landscaping and signage requirements. Thus, no local jurisdictional CEQA actions are associated with the granting of a hazardous waste permit by DTSC for Quemetco to operate. Therefore, a summary of projections contained in adopted plans would not apply to a cumulative impacts analysis for this project, as the Proposed Project is currently part of the baseline assumptions contained in current plans. Likewise, a list of past, present and reasonably foreseeable future projects proposed within the City of Industry and surrounding areas would not yield a meaningful cumulative impacts analysis because the Proposed Project is currently operational and would be part of the baseline conditions considered in the analysis of any proposed projects.

An appropriate cumulative analysis for the Proposed RCRA Part B Permit Application involves the evaluation of other DTSC projects within the area affected by the project, since the Permit Application is under the jurisdiction of DTSC and is not subject to a local land use decision. Thus, projects currently or anticipated to be subject to a DTSC permit in the affected area would be considered for the cumulative analysis. This affected area, for the purposes of this analysis, would include the area of study as contained in the Health Risk Assessment surrounding the Quemetco facility that could cumulatively result in emissions and health risk considerations. As presented in the HRA, and summarized in Section 3.7 of this DEIR, found that cancer risk and chronic noncarcinogenic health effects from exposure to lead do not adverse health effects to children or adults in the local receptor locations of the project. The closest maximum exposed individual to the project is approximately 1,000 feet southwest of the facility fenceline (see Figure 3.7-1). Inhalation of hexavalent chromium, exposure to lead by ingestion, blood level concentrations of lead to residents were also found to be less than threshold levels. In addition, a sensitive receptor analysis identified hospitals, nursing homes, schools, day care facilities, and outdoor swimming pools within six kilometers of the facility. None of these receptors are located within the hazard boundaries of the facility.

DTSC has checked its database and has found that there are no projects within this boundary that are being considered. Thus, there are no other projects to be included in a cumulative analysis, and thus no cumulative impacts from multiple DTSC projects.

SECTION 5.0 - ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with the requirements of CEQA, this section analyzes the environmental impacts of alternatives to the Proposed Project. CEQA Guidelines Section 15126.6(a) states,

> "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

This section discusses three alternatives to the Proposed Project. The feasibility of each alternative is discussed, along with the degree to which each alternative meets the stated project objectives.

The Proposed Project is the RCRA permitting of an existing, long established operating facility. As a result, the evaluation of project alternatives under CEQA raises several unusual issues. This is not an analysis like most new development projects on an undeveloped site, where the identification of project alternatives is relatively simple. To some degree, any alternative to the Proposed Project would involve the identification of treatment and/or expansion of capacity among other existing facilities. These unusual circumstances differ from the standard approaches to alternatives analysis under CEQA, and results in a set of alternatives as described below.

5.1 ONSITE ALTERNATIVE

Selection of an onsite alternative under CEQA commonly includes one or more alternatives located on the project site, which varies from the Proposed Project in scale or design. In this case, the Proposed Project is already constructed and has been operating for a number of years, thus an onsite redesign or reorientation is not rationale, and serves no purpose. The proposed project involves approval of an operating permit for the Quemetco facility that will allow the facility to continue to operate within the confines of the capacities defined in the permit application. If a reduced operation were to be considered, a revised application or limitations on operations would need to be placed into the permit conditions. Since this DEIR analysis did not identify any unmitigated residual significant impacts, there would be little benefit from changes to environmental conditions from any reduction in capacity of the facility. The placement of limitations on operations would require that the remaining operations be transferred to other facilities to comply with Health and Safety Code 25215.2 that prohibits the disposal or attempted disposal of lead acid batteries at solid waste facilities, or on any lands, surface waters, watercourses, or marine waters. Since consideration of the transfer of operations to other facilities is addressed in the No Project Alternative below, consideration of this alternative is not carried out in further detail.

5.2 OFFSITE ALTERNATIVE

The analysis of offsite alternatives to the Proposed Project under CEQA typically involves consideration of the feasibility of locating the Proposed Project at one or more alternative locations, where the potential significant affects would be reduced or avoided. This is typically addressed for new development projects. Relocating the Quemetco facility is infeasible and was rejected as an alternative as discussed further. Under CEQA, only feasible offsite alternatives capable of reducing or avoiding the significant environmental impacts of the Proposed Project need to be analyzed. Thus, a complete relocation of the proposed project to an alternative site is not considered a feasible alternative since the economic implications of such an action could not be justified against the avoidance of environmental impacts. That is, the Lead Agency must consider in their Statement of Findings and Overriding Considerations as part of the CEQA process, the balance of the environmental impacts of a project against the economic, technical and social implications of a project. Because this project is the continuation of existing conditions, and not a new facility, justification of relocation of the facility is infeasible, and was rejected from further consideration.

In the case of the Proposed Project, offsite alternatives are addressed in the event that permit denial would result in the need that battery recycling be continued and absorbed among other existing facilities and would thus be a ramification of the No Project Alternative.

5.3 NO PROJECT ALTERNATIVE ANALYSIS

5.3.1 Description of the No Project Alternative

The No Project Alternative is analyzed here as required by CEQA. Because the Proposed Project involves permitting of an existing facility and its operations, the No Project Alternative described herein will differ from a standard "no action" alternative. The project analyzed in this DEIR is the issuance of a RCRA Part B Permit, therefore, the No Project Alternative is that of not granting the RCRA Permit for the continued operation of the Quemetco Battery Recycling Facility. If no RCRA Permit is granted, Quemetco would not be able to use the facility for recycling of batteries and other lead products, and the closure plan would take effect immediately.

Under this Alternative, the activities described in the Closure Plan and Post-Closure Plan would begin upon refusal of the RCRA Part B Permit. Full closure of the facility would occur within approximately six months of the final receipt of wastes and post-closure would occur for five years from the final closure date.

Under this Alternative, all waste currently received and processed by Quemetco, would be disposed of or recycled at another facility or facilities. The most likely facility would be the Exide Facility located in the City of Vernon in Los Angeles County. This is the only other facility currently operating in California. The Exide Facility is also currently under review by the DTSC and has applied for its RCRA Part B Permit. Like Quemetco, it is also operating under an interim status agreement. Also, like Quemetco, if approved, would be allowed to continue to operate to the capacity as set forth in their permit application. Like Quemetco, Exide currently operates 24 hours per day, with three 8-hour shifts, and operates seven days per week. It is assumed that Exide is operating to maximum permitted capacity and would not be able to take on additional batteries for processing, should Quemetco be closed. In order to expand capacity, Exide would be required to submit a new application and approval for an expanded facility that would also be subject to CEQA review, a process that with construction and installation of new operating units could take several years. Thus, for purposes of this analysis, it is assumed that there could be no transfer of waste materials to Exide for processing. (It is also important to note that as no decision has been made on Exide's permit, that should Exide not be permitted, and Quemetco not be permitted, then waste treated by both facilities would require shipment and treatment elsewhere.

If waste materials cannot be treated locally, other reasonable treatment facilities are located in Texas, Indiana, and Mexico.

5.3.2 Consistency with Project Objectives

The project objectives, as presented in Section 2.3.2 of this DEIR, include: 1) the continued treatment and storage of hazardous wastes to allow for continued recovery of lead from batteries and other materials; 2) modify the manufacturing processes to increase efficiency; and 3) allow for phased implementation of remedial measures consistent with the maintenance of health and safety or workers and the general public. The No Project Alternative is not consistent with these objectives.

5.3.3 Environmental Analysis of the No Project Alternative (Transfer of Waste Materials Outside California)

The handling of the waste materials outside California assumes transport to multiple existing facilities located in Texas, Indiana, and Mexico. As a result, environmental impacts would not be eliminated, only moved to, and shared amongst several locations. Each business now sending waste batteries to Quemetco would need to make arrangements with out-of-state facilities for treatment. This would require contracting for shipping probably via trucks. Alternatively, storage transfer stations (privately operated but under regulatory requirements of DTSC) could be provided/expanded to accommodate a large number of waste batteries. Trucks, then, instead of delivering batteries to Quemetco, would deliver them to a transfer station. If such a facility (facilities) were adjacent to a rail line(s), batteries could be shipped via rail out of state.

The treatment of waste materials at out of state facilities may involve: 1) increases in costs associated with longer transport distances; 2) higher costs that may induce illegal dumping activities locally; 3) an increase in emissions that may be associated with the longer trucking and/or rail transport distances and, 4) an increased potential for accidents that could result in spills of waste materials.

Quemetco obtains 80 to 85 percent of the batteries it recycles from within the State of California, with the remaining portion received from other states and from Mexico. In 1999, there were approximately 26,000,000 registered vehicles in California that equates to 26,000,000 batteries. In addition, there is an unknown quantity of batteries associated with other motive power (such as marine batteries), stationary, and other uses, thus the total number is higher. Automotive and other batteries are manufactured to have lives typically of between 2 to 7 years. Assuming an average life of about 5 years, there may be up to 5 million automotive batteries to be recycled each year. The cost of shipping batteries by truck and/or rail out of state is currently estimated at approximately $1,700 per truck/rail load (each truck can hold about 1,200 batteries). If the waste materials were to be shipped to out of state facilities for treatment, the burden of increased shipping costs would be placed on local businesses (such as car repair shops, used car dealers) and transfer stations (hazardous waste transfer stations are allowed to store wastes, including batteries for no more than 90 days), and ultimately to the consumer. For competitive markets, increasing the costs may be a factor that may result in small business choosing to take their chances with illegal dumping. Adding to this is that if fuel prices continue to increase, that additional cost will even provide more incentive to not recycle the batteries. Thus, there could be an associated increase in environmental effects associated with such activities that could negatively impact water and soil resources and pose safety hazards.

Because of the diversity of locations from which Quemetco receives waste materials, shipments to Quemetco are by truck. Thus it would be assumed that the same amount of trucks could be used to ship out of state. Alternatively, one or more central transfer stations could be established for the collection of batteries if those transfer stations are located along rail spurs. The same number of trucks would be associated with deliveries to the central transfer stations, plus the additional emissions associated with rail haul. Since 80 to 85 percent of the batteries treated by Quemetco are from inside California, shipping to Texas, Indiana, and Mexico shipment via truck or rail would substantially raise emissions, and longer distances also increase the potential for accidents that may result in materials spills.

The use of lead in a wide range of applications has been substantially reduced. One of the last major uses, is for lead-acid batteries that may be one of highest uses of lead. Recycling of the lead is an essential component of battery manufacture. In a recent conference, the Spring Convention of the World Recycling Federation in Madrid, it was estimated that 70% of lead used now goes in batteries. According to the National Recycling Rate Study, July 2001, prepared by the Battery Council International, the five-year (1995 - 1999) recycling rate average for lead from lead batteries is 93.6%. Thus, shipment of recycled product back to manufacturers and other industrial users of lead must also be considered. Shipping costs would increase and be passed to consumers.

The capability of out of state facilities to handle additional waste materials is also not known. If the facilities in Texas, Indiana, and Mexico are operating at maximum capacities, then there may be a potential that waste materials received could be stockpiled on facilities sites, with increasing risks of water contamination if areas are not properly contained. Also, delays and shortages of materials for battery manufacturers could result if the used materials cannot be processed and recycled in a timely manner.

Given this analysis, the No Project Alternative would result in increased impacts associated with long distance transport, the uncertainly and potential for impacts at other facilities due to the stockpiling of batteries, and the economic implications that could induce illegal dumping posing additional hazards to the local environment. Thus the No Project Alternative has the potential to be more impacting than the proposed project.

SECTION 6.0 - OTHER CEQA-REQUIRED SECTIONS

6.1 GROWTH INDUCING IMPACTS

The CEQA Guidelines section 15126.2(d) require that an EIR:

> "Discuss the ways in which the Proposed Project 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."

The proposed project would allow the continuation of an existing use and would not directly or indirectly foster growth in the local area or region, nor would it remove obstacles to population growth.

6.2 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

The CEQA guidelines, §15126.2(b), require that the EIR:

> "Describe any significant impacts, including those which can be mitigated but reduced to a level of insignificance. Where there are impacts that cannot be alleviated without proposing an alternative design, their implications and the reason why the project is being proposed, notwithstanding their effect, should be described."

Based on the conclusions reached in Section 3.0 of this EIR, implementation of the Proposed Project would result in significant, unavoidable impacts to water quality. All other impacts were found to be less than significant with or without the implementation of mitigation measures.

Water Quality

Non-compliance with established water quality standards for groundwater resulting from continued operations at the Quemetco Facility is considered a significant impact. The Quemetco facility is regulated by the EPA/DTSC, LACSD and SWRCB. These agencies require corrective action and continued monitoring of water quality that is ongoing on the project site. No measures beyond those already required and implemented are available to mitigate the project-related impacts to water quality. Until such time as WQPS are met, impacts remain significant and unavoidable.

SECTION 7.0 - REFERENCES AND PERSONAL COMMUNICATIONS

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7.2 PERSONAL COMMUNICATIONS

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Hull, Mary
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Leininger, David R.
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7.3 REPORT PREPARERS

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Reese Chambers Systems Consultants
3379 Somis Road
Somis, California 93066
Tim Chambers, Risk of Upset

SECTION 8.0 - ABBREVIATIONS AND ACRONYMS

AAQS	Ambient Air Quality Standards
AQMP	Air Quality Management Plan
BLEVE	Boiling Liquid Expansion Vapor Explosion
BTU	British Thermal Units
CAA	Federal Clean Air Act
Cal-EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Federal Comprehensive Environmental Response Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CHWMP	County Hazardous Waste Management Plans
CMS	Corrective Measure Study
CNS/PNS	Central or Peripheral Nervous System
CO	Carbon Monoxide
CO_2	Carbon Dioxide
COPC	Chemicals of Potential Concern
CWA	Clean Water Act
DOT	U.S. Department of Transportation
DOT	U.S. Department of Transportation
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ERP	Emergency Response Plan
F	Fahrenheit
FWPCA	Federal Water Pollution Control Act
GLC	Ground Level Concentrations
H&SC	Health and Safety Code
HC	Hydrocarbons
HHRA	Human Health Risk Assessment
HI	Hazard Index
I- 605	Interstate 605
I-10	Interstate 10
IDLH	Immediately Dangerous to Life and Health
ISCST3	Industrial Source Complex Short Terms, Version 3 model
ISD	Interim Status Document
LACFD	Los Angeles County Fire Department
LACSD	Los Angeles County Sanitation District
lb	Pound
LIA	Local Implementing Agency
µg/dl	Micrograms per decileter
MEI	Maximum Exposed Individual

MGD	Million Gallons per Day
mph	Miles Per Hour
msl	Mean Sea Level
NFPA	National Fire Protection Association
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPA	California Office of Permit Assistance
OSHA	Federal Occupational Safety and Health Administration
PAH	Polynuclear Aromatic Hydrocarbons
Pb	Lead
PM_{10}	Inhalable Particulates
POTW	Publicly Owned Treatment Works
ppm	Parts Per Million
RAGS	Risk Assessment Guidance for Superfund
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
ROG	Reactive Organic Gasses
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	Sulphur Dioxide
SO_X	Sulphur Oxides
SR 60	State Route 60
SRA	Source/Receptor Area
SVOC	Semi-Volatile Organic Compounds
SWRCB	State Water Resources Control Board
T/S Facility	Treatement/Storage Facility
TSDF	Treatment, Storage, and Disposal Facility
USC	United States Code
USEPA	U.S. Environmental Protection Agency
WDR	Waste Discharge Requirements

APPENDIX A

NOTICE OF PREPARATION, INITIAL STUDY, AND NOP COMMENTS

NOTICE OF PREPARATION

To: All Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Report

Lead Agency: State of California Environmental Protection Agency, Department of Toxic Substances Control
1011 North Grandview Avenue, Glendale, CA 91201

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) will be the Lead Agency and prepare an Environmental Impact Report (EIR) for the project identified below. We need to know the views of your agency regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and potential environmental effects are contained in the attached materials.

Responses to this Notice of Preparation must be received by DTSC no later than 5:00 p.m. on May 13, 1996. Please send your response to Dr. Jamshid Ghazanshahi at the address shown above or fax it to (818) 551-2901. Please provide the name of a contact person in your agency.

Project Title: Quemetco, Inc., Resource Conservation and Recovery Act Part B Permit

Project Location: 720 South Seventh Avenue, City of Industry, CA 91749

Project Description: The project is the continued operation of Quemetco's battery recycling facility, which is an existing secondary lead smelting facility that operates for the purpose of recycling lead. The facility is located on a 15-acre site at 720 South Seventh Avenue in the City of Industry, California. Under state law, all hazardous waste management facilities in the state must have a permit from DTSC to operate. Prior to issuance of the permits, an EIR must be prepared. Quemetco is in the process of obtaining the required permits to continue operation.

PROJECT DESCRIPTION

QUEMETCO, INCORPORATED
CAD 066233966

SECTION 1 - INTRODUCTION

The purpose of this Notice of Preparation (NOP) is to provide public notification that the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) will prepare an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for the Part B Permit application for an existing battery recycling facility owned and operated by Quemetco, Incorporated (Quemetco). The facility is located in the City of Industry, Los Angeles County.

The DTSC is currently considering Quemetco's Part B Permit application (under the California Code of Regulations Title 22, Section 66270, Article 2) in accordance with the Federal Resource Conservation and Recovery Act (RCRA). The permit request is for the continuance of current operations that involve the treatment, storage, and transfer of hazardous and nonhazardous wastes related to used automotive batteries. DTSC has been designated as the Lead Agency for the preparation of the EIR. An environmental consulting firm, approved by DTSC and funded by Quemetco, will prepare the Draft and Final EIR under the direction of DTSC, Region 3 Office.

This NOP is being issued to inform public agencies and the general public that an EIR is being prepared for the Quemetco project and to invite specific comments on the scope and content of the EIR. An Initial Study was not prepared for this project because an EIR is mandatory per state law (California Public Resources Code Section 21151.5).

The project's description, location, and potential environmental effects are described in this NOP. DTSC will accept specific comments on the scope and content of the EIR as presented in this NOP. Due to the time limits mandated by state law, comments must be submitted by May 13, 1996.

1.1 REGULATORY FRAMEWORK

The project, and the subject of the RCRA Part B application, is the continued operation of Quemetco's battery recycling facility in the City of Industry. When California's hazardous waste management program was created in the late 1970s, all hazardous waste management facilities in the state were directed to file for a temporary operating permit until DTSC could do a more thorough review of each company and its operations. Quemetco submitted the first part of its permit application (the Part A application) and was granted a temporary operating permit, known as an Interim Status Document (ISD), in 1982. The facility must now obtain a full Part B permit from the DTSC to continue its operations at the site. In 1994, Quemetco submitted a Part B Permit application to DTSC. In 1995, DTSC completed its preliminary review of the

Part B application materials and concluded that it was necessary for an EIR to be prepared prior to DTSC making a final permit decision. The Part B review and EIR are scheduled for completion in late 1996. At that time, a tentative permit determination will be made, and more public comments will be sought.

1.2 THE CALIFORNIA ENVIRONMENTAL QUALITY ACT/PUBLIC SCOPING PROCESS

As part of the required CEQA process, the Lead Agency for the evaluation and approval of a project is required to identify the potentially significant impacts of a project on the environment and, if possible, provide mitigation measures to eliminate or reduce impacts to less-than-significant levels. Compliance with CEQA is required for all new projects requiring discretionary approval by an agency and must be completed before the permit determination can be made by DTSC.

Although CEQA consideration is required for any project where a discretionary decision is made, state law mandates that an EIR be prepared for the Quemetco RCRA Part B Permit based on the amount of hazardous material handled by the facility. DTSC has accepted the Lead Agency role for this EIR and will assess and evaluate potentially significant environmental impacts before the decision on Quemetco's application can be made.

DTSC will hold a public scoping meeting to receive agency and public input on the scope of the EIR and environmental issues that will be evaluated in the EIR. The project scoping process is an effective way to bring together and address concerns of the public, affected agencies, and other interested parties. A project description and a summary of the scope of the EIR are included in Section 2 of this NOP for the convenience of the reviewer. Public agency comments will help identify the range of environmental effects, mitigation measures, and alternatives to be analyzed in depth in the EIR. It will also eliminate from detailed study any environmental issues where there is no potential for significant impacts.

The scoping process is not intended to resolve differences concerning the project or determine the ultimate DTSC decision on the permit application. The scoping process is to help ensure that a comprehensive and focused EIR will be prepared that provides the basis for the decision-making process. The scoping meeting will be part of the 30-day public comment period during which interested individuals, agencies, and groups may submit written and oral comments. Comments can be given orally during the scheduled scoping meetings listed below or by sending written comments to:

California Department of Toxic Substances Control
Region 3
Public Participation Unit
1011 North Grandview Avenue
Glendale, CA 91201
Attn.: Dr. Jamshid Ghazanshahi
(818) 551-2871

1.2.1 Scoping Meetings

A public scoping meeting will be held for the general public at the date, time, and lcoation as follows:

April 24, 1996
7:00 p.m.
Los Altos High School, Hacienda Room
15325 Los Robles Avenue
Hacienda Heights, CA 91745

1.3 AVAILABLE INFORMATION FOR COMMUNITY REVIEW

Community and public involvement is strongly encouraged during the permit application decision-making process, which includes the preparation and review of the EIR as well as the RCRA Part B application. Additional information outside this NOP, including the Part B application, the health risk assessment (HRA), the RCRA facility assessment, the RCRA facility investigation workplan, other published and available pertinent information, as well as the public comments and agency responses to the NOP and other informational material about the process, will be available throughout the course of the process. This information can be obtained from DTSC at the following locations:

California Department of Toxic Substances Control
Region 3
Public Participation Unit
1011 North Grandview Avenue
Glendale, CA 91201
Attn.: Dr. Jamshid Ghazanshahi
(818) 551-2871

Hacienda Heights Public Library
16010 La Monde Street
Hacienda Heights, CA 91745
(818) 968-9356

1.4 MAILING LIST

This NOP is being distributed to state, local, responsible, and trustee agencies and key contacts in the local community and in the state. Copies of the NOP will also be made available at the DTSC. For a copy, please call Dr. Jamshid Ghazanshahi, DTSC, at (818) 551-2871. In addition, a fact sheet regarding the scoping sessions and environmental review will be sent to the DTSC project mailing list. This list includes key members of the community, as well as the addresses of businesses and residents located within a ¼-mile radius of the Quemetco facility. Anyone wishing to be added to the mailing list should contact the DTSC, Region 3 Public Participation Unit.

SECTION 2 - DESCRIPTION OF EXISTING CONDITIONS

2.1 ENVIRONMENTAL SETTING

2.1.1 Project Location

The Quemetco facility is an existing secondary lead smelting facility that operates for the purpose of recycling lead. The facility is located on a 15-acre site at 720 South Seventh Avenue in the City of Industry, California. The property is currently owned and operated by Quemetco. Figure 1 shows the general location of the project site.

2.1.2 Surrounding Land Uses

The project site is located in an area consisting predominantly of commercial and light industrial uses with manufacturing operations surrounding the project site on the east, north, and west. The northern boundary of the project site is San Jose Creek, a concrete-lined channel that flows east to west. Residential uses are located 600 to 700 feet south and southwest of the southern boundary of the site.

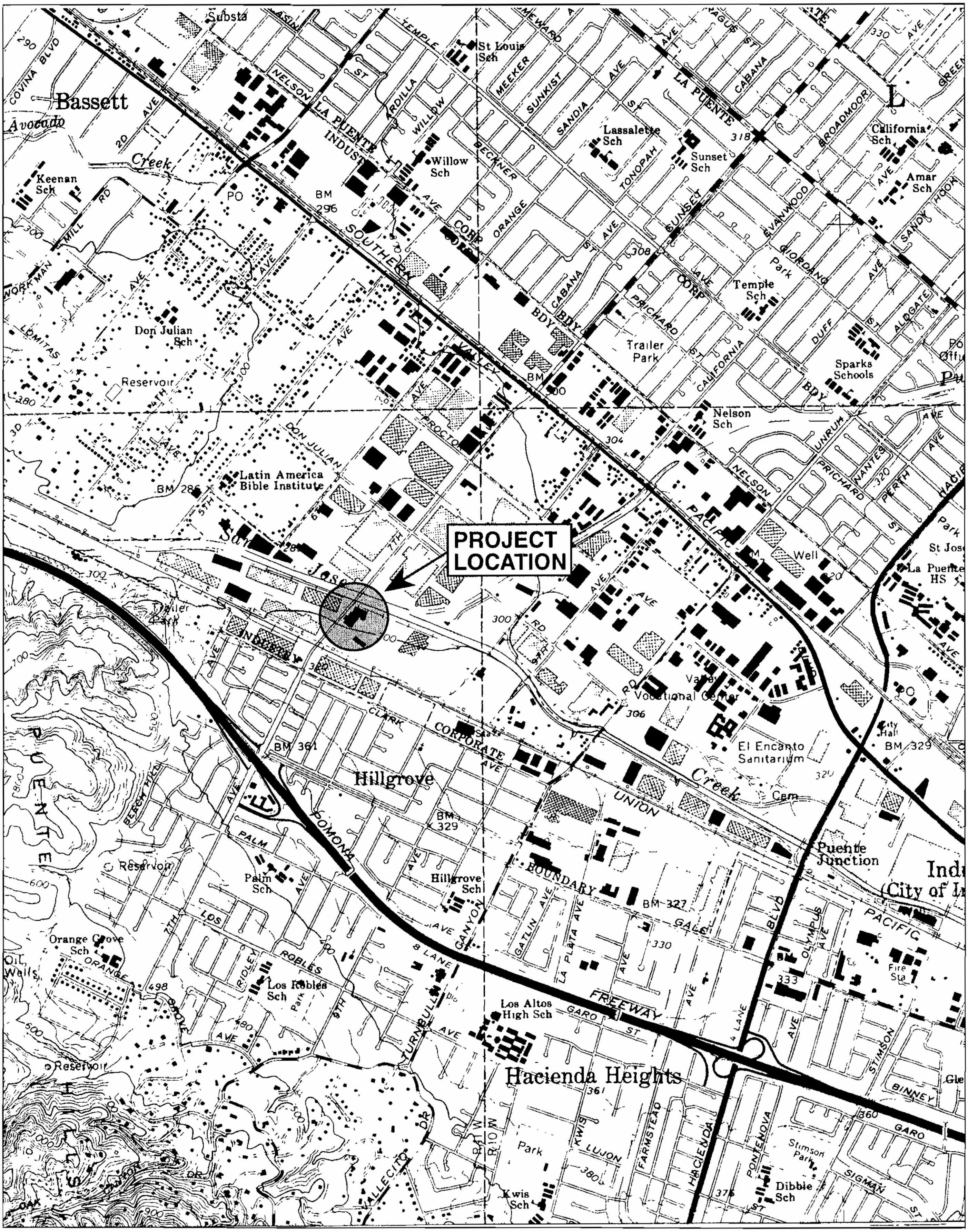
2.1.3 Topography and Surface Water Features

Elevation above mean sea level (MSL) of the project site ranges from approximately 304 feet on the southwestern portion of the site to approximately 295 feet near San Jose Creek, which forms the northern boundary of the site. Runoff from the operational areas of the facility is collected and transferred to the facility's water treatment plant. Runoff from the area west of the administrative offices flows into storm drains that empty into San Jose Creek.

2.1.4 Site Geology and Hydrogeology

Geology

The Quemetco facility is located in the northeastern block of the Los Angeles Basin geologic province of southern California. The northeastern block contains mostly marine sedimentary rocks with some Miocene volcanic material in the east. The marine sedimentary rocks are overlain by a thick accumulation of unconsolidated alluvium washed into the basin from the surrounding mountains. In the vicinity of the project site, the alluvium is over 150 feet thick and consists of layers of silts, sands, and clays with varying amounts of gravels and organic material.



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Base Map Source: USGS 1:24,000
Baldwin Park, CA

PROJECT LOCATION MAP
Figure 1

Hydrogeology

The site is located in the Puente Valley subbasin that forms the southeastern portion of the San Gabriel Valley Groundwater Basin. The Puente Valley, bordered on the north by the San Jose Hills and to the south by the Puente Hills, has a gentle westward sloping gradient along San Jose Creek, the northern boundary of the project site. Groundwater flow across the site is north to northwest, in general agreement with the regional direction of flow.

A groundwater contour map prepared by the Los Angeles County Department of Public Works in 1989 showed that the groundwater elevation of the regional aquifer in the site vicinity was about 250 feet above MSL, which would put the groundwater level between 20 and 35 feet below the surface of the project site. Fifteen groundwater monitoring wells were installed on the project site between 1982 and 1993. Eight of these wells have been set in the shallow geologic unit, and seven wells were set in the deeper hydrostratigraphic unit. Quemetco conducts quarterly monitoring of these wells. The depth to groundwater has fluctuated in the shallow wells from 9 to 50 feet, including drought periods when the wells have been dry. The depth to groundwater in the deeper wells has fluctuated from 30 to 70 feet.

2.2 EXISTING PROJECT CONDITIONS

2.2.1 Access to the Facility

Access to the facility is restricted by a 6- to 10-foot-high security fence. Ingress and egress of personnel and vehicles are controlled by a 24-hour, 7-day-per-week security guard. Flood lights illuminate the process and other areas at night to enhance safety and security.

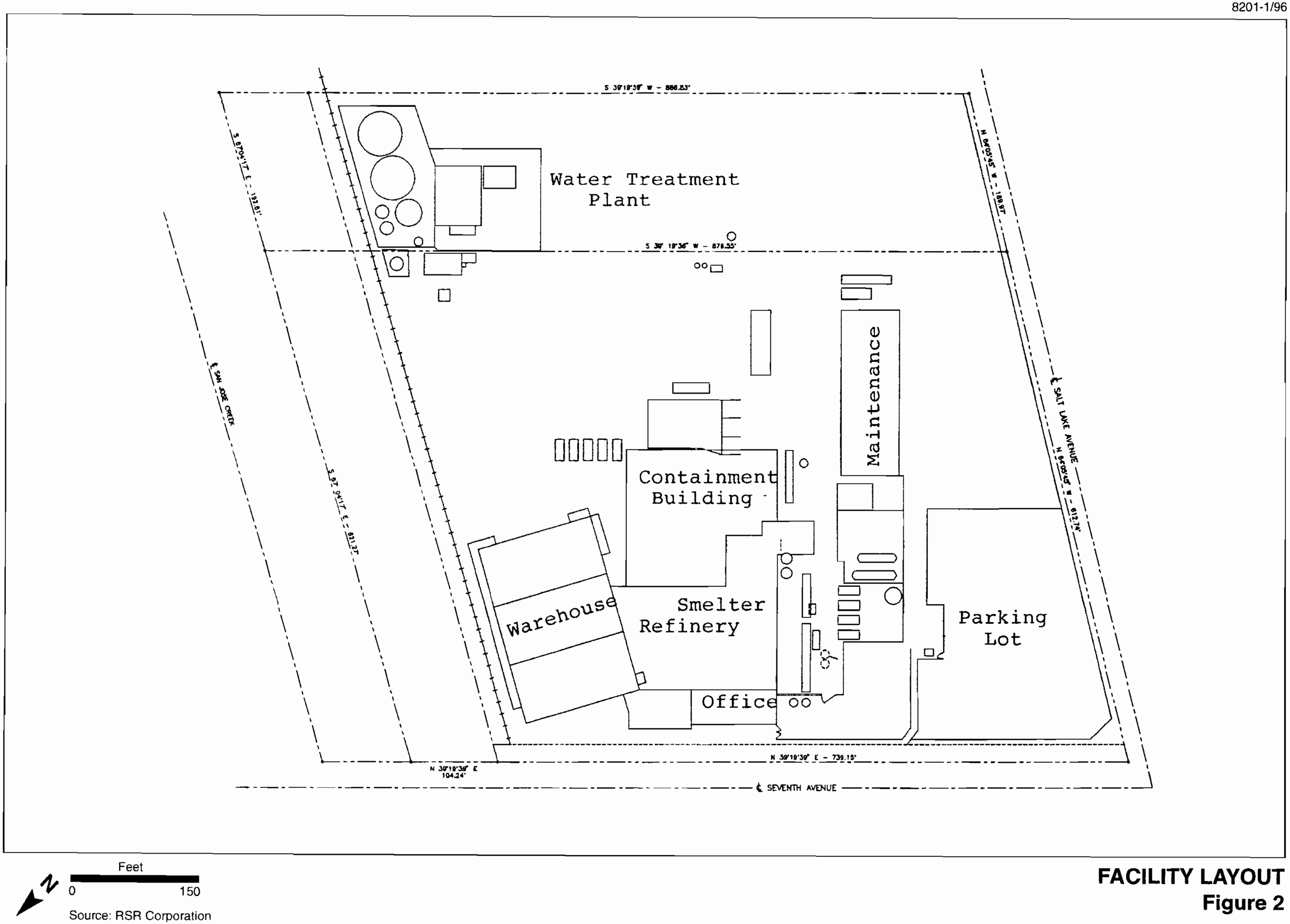
2.2.2 Description of Facility Operations

Figure 2 illustrates the general layout of facilities at the 15-acre processing site. The Quemetco facility recovers and reprocesses lead from used automotive batteries and other sources. Approximately 95 percent of the lead refined at the facility is derived from used automotive batteries, while the remaining 5 percent comes from other batteries and scrap lead. Approximately 10 million batteries are recycled at the facility, returning approximately 120,000 tons of lead.

The used batteries are delivered to the facility by truck. Upon arrival, they are offloaded and transferred to either the battery storage area or the reclamation process area. The process units and other phases of recovery and reprocessing are located in the central portion of the 15-acre site along with various support buildings, including administrative offices, laboratories, and equipment maintenance areas.

Batteries are processed in a battery wrecker. The batteries are crushed in a jaw crusher and the pieces fed into sink/float cells where the "lighter" plastic and rubber components of a battery are separated from the "heavier" lead. The recovered plastic materials are washed with water and blown into trailers for storage and subsequent shipment to a plastic recycling facility.

8201-1/96



FACILITY LAYOUT
Figure 2

Source: RSR Corporation

Lead-containing materials recovered during the separation process, including lead plates, posts and grids, are temporarily staged in the facility's containment building until they can be processed in a drying kiln and fed into a reverberatory furnace. Molten lead is tapped from the furnace into molds and cooled to form unrefined lead blocks. Partially depleted slag from the reverberatory furnace is transferred to an electric furnace for additional metals recovery. Molten lead from the electric furnace is also tapped into molds. The lead blocks are placed in refining kettles, where they are melted and refined to meet customer specifications. The refined molten lead is poured into molds and cooled to form ingots and blocks, which are stored in a warehouse adjacent to the refinery area, prior to shipment.

Baghouses are used to control process and fugitive emissions. Dusts collected in these baghouses are returned to the process. Wet scrubbers are also used to control emissions of sulfer oxides from the reverberatory and electric furnaces. Process wastewaters, washdown water, and collected stormwater are treated in the facility's water treatment plant and discharged to the sewer in accordance with a permit from the Sanitation Districts of Los Angeles County.

SECTION 3 - PROPOSED SCOPE OF THE ENVIRONMENTAL ANALYSIS FOR THE EIR

3.1 INTRODUCTION

The EIR will present the potential environmental impacts associated with the continued operation of the Quemetco facility, as previously described, as well as comparative environmental effects of feasible alternatives to the facility. Mitigation measures designed for specific impacts that are potentially significant will also be identified.

The following summary provides a general overview of the issue areas to be addressed in the EIR. The public and government agencies will have the opportunity to provide comments on the proposed scope of work during the scoping sessions.

3.1.1 Land Use

The project site is located in an area consisting predominantly of commercial and light industrial uses with manufacturing operations surrounding the project site on the east, north, and west. The northern boundary of the project site is San Jose Creek, a concrete-lined channel that flows east to west. Residential uses are located 600 to 700 feet south and southwest of the southern boundary of the site.

The land use section will briefly present the Quemetco facility's existing zoning and land use designation and a characterization of the surrounding industrial nature of the area. For use in other sections, a discussion of the facility's proximity and distance to sensitive receptors will be determined. The impacts section will discuss the project's consistency with existing zoning and land use designations, including examination of future planning considerations as presented in the General Plan.

3.1.2 Earth Resources

The Quemetco facility is located in the seismically active region of southern California. Because there is potential for seismic activity and potential damage to the facility, a general description of the site geology and seismic potential will be presented. A discussion of the potential for damage from seismic occurrences will focus on the potential for release of toxic materials.

The existing site conditions regarding soils will be described and a brief discussion of the site's history with respect to industrial use will be presented. The site is currently undergoing remediation for contaminated soils; a summary of this effort will be included in this section.

3.1.3 Water Quality

The Quemetco facility discharges treated process water and water collected from its operation areas into the sewer system. Because of issues with health risk and public safety, the facility's/ applicant's compliance with water quality objectives and discharge limitations will be described.

The existing site conditions, including a description of existing surface runoff conditions, will be discussed. The wastewater treatment process will also be described. The State Water Resources Control Board permit will be reviewed and discussed. Review of the facility's record of compliance with industrial waste discharge permit conditions will be provided.

3.1.4 Air Quality

Project operational emissions will be evaluated for conformance with the applicable goals, policies, and attainment programs of state and local agencies, and for potential impacts on any nearby sensitive receptors.

A summary of recent air quality trends and a brief discussion of the existing meteorologic and air quality conditions in the project site vicinity will be presented. Applicable goals, policies, and attainment programs of state and local agencies, including the South Coast Air Quality Management District's (SCAQMD) 1994 Air Quality Management Plan (AQMP), will be discussed.

Project operational emissions of criteria air pollutants will be based on air permit information or estimated using U.S. Environmental Protection Agency emission factors and the most current air quality model approved for use in the South Coast Air Basin by the SCAQMD. Air emission estimates will be made in accordance with the procedures outlined in the current SCAQMD Air Quality Handbook.

Based on the project emission estimates, an evaluation will be made of any potential impacts that could result from continued site operations. A general discussion will be provided both from a local and regional perspective, with special focus on any identified sensitive receptors. A quantitative assessment of the project's effect on achievement or maintenance of state or federal air quality standards will be made. Odor and other nuisance impact potential from site operations will be assessed. Project conformity with the 1994 AQMP will also be evaluated and discussed.

3.1.5 Noise

Project operations, including truck and rail traffic, have the potential to result (or continue to result) in noise disturbances. This disturbance has the greatest potential if it were to impact nearby sensitive receptors.

Assumptions and noise data from any project reports will be reviewed for accuracy and appropriate application. Ambient noise conditions at the facility will qualitatively be based on existing traffic counts and/or literature values. The City of Industry's General Plan Noise Element or local noise ordinance will be reviewed for local noise compliance issues.

The compatibility of project operations with the current and future projected surrounding noise environment will be addressed. Conformance requirements with the City of Industry Noise Element or noise ordinance will also be evaluated.

3.1.6 Human Health

This section will assess the potential impact of the facility on public health. The first step in this process will be preparing a multipathway HRA to examine the potential effects of toxic air contaminants emitted at the facility. The HRA will be prepared in accordance with procedures published by the California Air Pollution Control Officers Association (CAPCOA) and the SCAQMD.

The HRA will consist of air quality modeling to estimate maximum ground level concentrations of contaminants and an exposure assessment to relate these concentrations to carcinogenic and noncarcinogenic effects. The former will consist of a chronic exposure assessment, while the latter will consist of both an acute and chronic assessment.

The results of the HRA will form the basis for the public health section of the EIR. The baseline section will map the receptors that may be impacted by toxics from the facility and discuss the laws and regulations affecting toxic emissions from the facility.

The public health impacts from the facility will be discussed in accordance with CAPCOA's and SCAQMD's guidelines as discussed above. The HRA will also be used to assess the potential risk from the project alternative. An HRA will not be conducted for the cumulative impacts; however, the potential impacts will be subjectively discussed.

3.1.7 Risk of Upset/Waste Management

The risk of upset analysis will address all aspects of the operations, including transporting batteries and other potentially hazardous materials (e.g., caustic materials, petroleum products for fuel) to the site, handling hazardous materials (e.g., neutralization of the acids, recovery of the leads), storing hazardous materials, and transporting materials from the site (both truck and rail). The potential for transportation-related accidents and for accidents at the facility to occur, including releases of hazardous materials and fires, will be addressed.

This section will also identify the responsible state and local agencies and describe their laws and regulations that govern the safe design and operation of the facility. Performance standards and operating procedures currently in place at the facility to protect the environment will be identified.

The analysis of the potential accidents will be based on the safety record of the facility, accidents at other similar facilities, and the design and operation of the facility itself. The potential impact of an accident is affected by the presence of resources that may be impacted. Thus, an overlay of the "hazard footprints" (areas of potential consequence from an accident) will be presented on a map to show the proximity of any accidents to the surrounding community and, in particular, any sensitive resources. This overlay technique readily shows whether impacts may be present.

The HRA will also take into consideration and assess the contingency response planning/capability of the facility. This includes the facilities business plan and/or emergency response plan.

3.1.8 Transportation

The facility generates traffic from vehicles entering from the 60 Freeway to 7th Avenue to Salt Lake Avenue. Traffic results from employee commutes and vehicles associated with transporting batteries into and residual materials out of the facility. Issues involve examining Quemetco facility's contribution of traffic to the total traffic in the proximity of the facility. A small percentage of rail transport is also used by the facility.

Where possible, vehicle counts on the local access road and major transportation routes will be used. Vehicle counts are typically available through City-supplied data, Caltrans, and other EIRs, Environmental Impact Statements, and Environmental Assessments prepared for areal projects.

An assessment will be made of the existing operating conditions and constraints in the study area. Established criteria for roadway level of service (LOS) based on vehicle capacity, turning movements, delay times, and so forth have been promulgated. These levels are defined in the Highway Capacity Manual distributed by the Transportation Research Board. The existing LOS will be determined, and the facility's traffic contribution to this level will be described. If possible, peak hour LOSs at the facility access locations will be quantified and the potential for project contribution delineated.

For analysis purposes, assumptions will be made for a "worst-case" traffic scenario that will be based on the maximum employee and truck trips that could potentially occur at the facility. Impacts will be examined if project-generated traffic, both from employee commutes and truck trips, is already at or will exceed a mid-LOS D or if project traffic and access result in a substantial safety hazard to other motorists. The facility's hours of operation will be assessed in relation to peak rush-hour traffic along the route from the freeway to the facility's access gate. The contribution of rail usage as compared to the total amount of rail transport will also be evaluated.

3.1.9 Public Services and Utilities

The availability of emergency response and fire protection services, including hazardous materials emergency response, provided through the resources of the City of Industry and the

County of Los Angeles will be examined. At issue is the project's impact on the City's and County's capability to provide adequate services under their current LOS.

The existing levels of emergency response and fire protection services provided to the facility through the County of Los Angeles and the City of Industry will be presented. Discussion with both the City and County will provide determination whether current services are adequate to handle emergency situations at the Quemetco facility.

NOP Response Letters

February 28, 1997

AQMD
21865 E. Copely Dr.
Diamond Bar, CA 91765

Ms. Barbara Fish
1820 Deerhaven Dr.
Hacienda Heights, CA 91745

Attn: Mohan Balagopalin, Sr. Eng. Toxic Dept.
RE: Public information request/ Quemetco/ Barbara Fish, HHIA

Dear Mr. Balagopalin:

Thank you for your return call regarding my inquiry in reference to the Quemetco Battery recycling facility located at 720 S. 7th Ave, City of Industry. Hacienda Height's dividing line is Clark Ave., so clearly we have a vested interest the safety of this facility.

During a recent tour by three HHIA members, we were informed by Mark Vonderaar that AQMD determines the placement of the stationary source air monitoring equipment. We noted that the west side of the factory and the western edge in the residential areas did not have monitoring equipment. We understand that a recent request for changed monitoring sites has been made by Quemetco. We are not aware of the nature of this request. We are requesting the reason (other than the prevailing wind patterns) why no monitoring is being done where residents live. Our concerns have been due to the lead-laden soil from early operations and the prevailing Santa Ana winds which are coming from the northern/eastern direction. This year, is appears, is a stong case for dealing with the erratic winds which are very strong. There are swimming pools to the west and day care sites.

We would also like to receive any quarterly data of a more recent nature that the factory has downloaded into your data base. We feel it is prudent to assure the safety of this facility due to the upcoming permit and the risk assessment being done by the State Dept. of Toxics. Since we are a non-profit group with limited funds we would appreciate getting it without the usual charge associated with public requests.

FROM: B FISH PHONE NO. : 818 9616131 Mar. 02 1997 08:56AM P1

Pages faxed (1) to (909) 396-3350

February 28, 1997

TO: Mohan Balagopalin, Sr. Eng. Toxic Dept.
FROM: Barbara Lee Fish V.P. HHIA
Environmental/Water Quality Chr.

AQMD
21865 E. Copely Dr.
Diamond Bar CA 91765

To - Jamshid Ghazanshani
FROM Barbara Fish Chr. HHHL Env. Cmte.

FYI, as requested.

May 7,1996

FAX 818 551 2841 PAGES SENT (5) INCLUDING COVER PAGE

TO: Jamshid Ghazanshahi, Project Mgr.
California EPA, Dept. of Toxic Control

FROM: Barbara Lee Fish
Environmental Chair
Hacienda Heights Improvement Assn.

RE: Quemetco Battery Recycling Facility
Written Comments following Scoping Meeting

Dear Jamshid:

Some of this is information I wanted to feed into the process as well as pose some questions. I am not sure at this point what Chandler will be doing or if this is your scoping information only.

May 7, 1996

California EPA
Dept. of Toxic Substances Control

RE: Quemetco Battery Recycling Facility
Seventh Ave. City of Industry

Mr. Jamshid Ghazanshahi, Project Manager
1011 N. Grandview Ave.
Glendale, CA 91201

Dear Mr. Ghazanshahi:

I have some questions which I would like to have answered in the EIR being prepared by Chandler, and funded by Quemetco.

1. At the public meeting at Los Altos High School there were concerns expressed about the adequacy of the lead study done by the County of Los Angeles. The Rand Corporation did an epidemiological study concerning the HRA for reclaimed water. It was a complete and accurate assessment of the health risks. Is there any chance that this type of study will be required by the state? Could lead in knee caps or hair be tested as well as blood work?

Will DTSC accept these previous studies or order new ones to satisfy the HRA area? Will block data be used or the census tract information be used to locate the residents? Would Quemetco be the one to fund such a study? Clearly, having the EIR funded by the discharger is going to mean a greater necessity for DTSC to give strict oversight. Since the state has suffered cutbacks what are other funding options? Is there any chance residents could request help from the state/federal entities in this area? The EPA Region IX, funded the county lead study. It was directed to the AQMD, then the County Health Department did the study. A recent conversation with an AQMD representative revealed an interesting recent development. He said there was an air spike increase recently and it was discovered a gate was not available and trucks were driving through soil. That accounted for the increase. We have young children playing in the soil. Soil samples in Hacienda Heights show a higher level of lead than the other test site (Covina). It is not comforting to know a change of traffic could kick up that amount of air monitoring spikes. Is this area needful of a serious epidemiological study?

Another interesting fact is that boys tested higher than girls in lead in the County study. Again, does this mean soil should be considered most seriously in determining need to test? Obviously, boys have more outdoor activity, and more dirt related play. The study stated that it was higher outdoors than indoors. Clark street was considered the most affected area and a door to door census study was done. Out of 934 homes in study only 836 were done, leaving 10% never contacted. Is this an adequate size study given the seriousness of lead in the pre-school child?

Data was completed in only 95 households, or 65%, or 122 children. This may not be totally accurate because the paperwork was inadequate but the question is how effective does the DTSC believe this is?

2. The fact sheet No. 2 was the one that notified residents of the local meeting. Was there a fact sheet #1 and what did that fact sheet say? Who received number one?

3. When soil that was contaminated was tested, was it done in an off site independent lab? What is the current status of that remedial clean-up? In the county studies, the mean soil lead content is higher in Hacienda Heights. Absence of ground cover and hours playing outside were predictive of higher blood lead levels.
Antimony and cadmium was also higher in Hacienda Heights. Atimony, arsenic and copper were detected by- products.

4. Why were the children of La Puente and the other battery recycling factory a project of the AQMD and to the best of my knowledge there was no study in Hacienda Heights regarding Quemetco? Has the AQMD ever put out any information of a public nature regarding the emissions?

5. Quemetco must comply with Rule 1420 and Rule 1407 (other toxics) under the AQMD regulations. What emissions over normal have been reported and will the EIR use visuals, graphs, etc. to help make the information understandable to the public?

6. Surface water runoff goes from the administration area into the San Jose Creek in an untreated form. If this mixes with the dust from the facility what lead is likely to be in this runoff? Has San Jose Creek been tested regularly and have high levels of lead ever been found in the creek? If so, when. The wastewater is treated onsite. How often and by whom is the inspection done?

7. It was stated that the Regional Water Quality Board asked their employee not to look at the Quemetco site because of jurisdiction authority. Which agency will now provide local oversight; how often will the site be inspected? More than in the past since the contaminated soil has been an issue?

8. The EIR should include emergency measures to deal with problems on the factory site. Chemicals mixed with water, stored on that site, are highly explosive. What is the record of safety the company has built up in the past? Does the County Fire Dept. have adequate equipment to deal with a major problem?

9. Moving of containers can be dangerous in that type of operation. There was some mention of "small spills" in the NOP. In the case of the most dangerous ones are separate enclosures ever done? That is, a containment arrangement to be secondary backup for leaks or spills. Is this the type of operation that should be using this safeguard?

10. The map used in the fact sheet was used solely to inform the public about where the meeting room was but a request was made by HHIA to include more detail. This was before the scoping session. The City of Industry label is much too far South and it is clearly Hacienda Heights. Will an effort be made to accurately indicate where the residents are living? There are 2000 mobile home residents in the park West of Clark (at the end). Can soil samples be taken of that park? There are children and older people living in that park and we request soil and air samples be taken from that area. Is this possible?

The AQMD put monitors in that area when the asbestos was being deposited in the landfill. Could any monitoring equipment be placed there? This is an AQMD decision but will the DTSC ask for that level of coverage? There was a previous request to put equipment there according to the manager. The EPA has one in the area. Where is it and what is it showing?

11.The fact sheet indicates the public will be kept apprised of the clean up plan regarding extent of contamination found. Why was so little public notice given when the concrete lined pond was a project and required removal of soil?

12. The fact sheet says Quemetco has been inspected by DTSC approximately nine times during the period of 1987 to 1994. Will the inspections be increased and if so, by how many? The fact sheet states DTSC plans to continue periodic inspections. Who will determine the number needed per year?

13. The company has been cited for improper management of hazardous waste piles in the past and unlabeled containers. Have the workers at the plant been required to take blood tests to determine lead levels? Does OSHA regulations need to be observed an if so, what has OSHA reported?

14. If DTSC is the lead agency in the EIR and has final authority over the completed EIR, what will happen if it falls short? Chandler has never done this type of EIR preparation.

15. There is a year old child living near 9th and Valley, well within the Prop. 65 warning area, who has tested 12 micrograms in standard testing. He is now down to 9 and under a doctor's care. What could account for a child of this age testing this high? He was only 8 months old when the first 12 was recorded.

16. There have been many reports of a metallic taste in the mouths of the residents living near Quemetco. What would account for this?

17. Will nighttime emissions be tested? Does documentation separate night from day? What will keep the company from increasing emissions in the late night hours? Some residents believe this has happened in the past. There are often complaints of low hanging masses over the general area.

18. What are the legal rights of companies nearby who feel they are being held captive to the emissions from this plant? For example, the Volkswagen warehouse employees feel captive during work hours to dust that settles, as well as the air. Is this a consideration when the final permit is authorized?

19. What measures can be used to mitigate the problems expressed by the public at the scoping hearing?

20. People talk about the orange color of the cement along San Jose Creek sidewalls. Does that indicate other chemicals other than rust?

21. There is a pre-school on Clark, near Turnbull Canyon, a hospital for children on Gale near Turnbull, and a Head Start day care(kids playing out in the soil) at Valencia called Hillgrove school. There is Orange Grove Jr. High, Palm Elementary, and Los Robles Elementary all within the Prop. 65 parameters. Given the considerable research citing lead as a factor on mental development, how heavily will this weigh on the decision to authorize the permit?

22. This is the 7th of May and the only lead blood study available to us and listed as in the Information Repository is incomplete and the Library is still trying to get a complete copy. Should the comment date be extended given this problem?

23. Will other studies done such as the one by the AQMD on the other battery recycling plant be taken into consideration? Will the evaluation be regional in approach?

I am aware that many of these questions may have already been the ones that needed to be answered under the standard CEQA process & the site specific EIR, but possibly there may be some that did not surface at the scoping meeting.

Thank you for this opportunity to comment on the process.

Barbara Lee Fish, Environmental Chr.
Hacienda Heights Improvement Assn.

Barbara Lee Fish

Barbara Fish
1820 Deerhaven Dr
Hacienda Hgts, CA. 91745-9318
818) 330-4998

WORKMAN MILL ASSOCIATION, INC.

POST OFFICE BOX 2146
LA PUENTE, CALIFORNIA 91746

May 6, 1996

Mr. Jamshid Ghazanshahi, Project Engineer
Department of Toxic Substance Control
1011 N. Grandview Avenue
Glendale, CA 91201

Dear Sir:

The Workman Mill Association (WMA), a local homeowner's association that represents over 14,000 residents in the community bounded by the 605 and 60 freeways and Valley Boulevard, are adamantly opposed to Quemetco being allowed to operate in view of the flagrant violations of the various regulatory agencies which govern its operation.

It is a known fact that in addition to your agency who has cited Quemetco numerous times, the Sanitation Districts and the South Coast Air Quality Management District (and likely other agencies) have also cited Quemetco for various violations through the years. Quemetco is cited, fined, and continues to violate. Until stronger enforcement, stiffer fines and ultimately a shutdown can be imposed, the WMA urges denial of a permit from your agency.

Quemetco has not been a good neighbor to our community.

Sincerely,

E Martinez

Elodia Martinez, President
Workman Mill Association

EM:lac

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TRANSPORTATION

DISTRICT 7, 120 SO. SPRING ST.
LOS ANGELES, CA 90012-3606
TDD (213) 897-6610

May 3, 1996

IGR/CEQA #4064
NOP
City of Industry
Quemetco, Inc., Resource
Conservation & Recovery Act
Part B Permit
Vic. LA-60-14.26

DR. JAMSHID GHAZANSHAHI
California Department of
Toxic Substances Control, Region 3
Public Participation Unit
1011 North Grandview Avenue
Glendale, Ca 91201

Dear Dr. Ghazanshahi:

Thank you for this opportunity to provide comments on the above-named project. The project is a continued operation of Quemetco's battery recycling facility, which is an existing secondary lead smelting facility that operates for the purpose of recycling lead

We note on page 12, 3.1.8 of the document, a traffic analysis will be made. Please submit the document prior to the DEIR and address the following information:

1) Assumptions and methods used to develop trip generation/distribution, percentages and assignments.

2) An analysis of ADT, AM & PM peak-hour volumes for both the existing and future (year 2015) conditions. This should include mainline freeway (Route 60), and affected ramps, streets, crossroads, and controlling intersections.

3) This analysis addressing year 2015 conditions to include project traffic, cumulative traffic generated for all approved developments in the area, Interchange Utilization (I.C.U.) and Level of Service (LOS) of affected freeway ramp intersections on the State highway and indicating existing + project(s) + other projects LOS (existing and future).

4) Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. These mitigation discussions should include, but not be limited to, the following:

   * financing
   * scheduling considerations
   * implementation responsibilities
   * monitoring plan

5) Developer's percent of the cost, as well as a plan of realistic mitigation measures under the control of the developer should be addressed. Specifically, any assessment fees for mitigation should be of such proportion as to cover mainline highway deficiencies that occur as a result of the additional traffic generated by the project.

Any transportation of oversized-transport vehicles on State highways will require a Caltrans transportation permit. We recommend that large-sized trucks be limited to off-peak commute periods.

We look forward to reviewing the DEIR. We expect to receive a copy from the State Clearinghouse. However, to expedite the review process, you may send two copies in advance to the undersigned at the following address:

Stephen J. Buswell
IGR/CEQA Coordinator
Caltrans, District 07
Transportation Planning Office, 1-10C
120 South Spring Street
Los Angeles, CA 90012

If you have any questions regarding this response, please contact me at (213) 897-4429.

Sincerely,

Stephen J. Buswell

STEPHEN J. BUSWELL
IGR/CEQA Coordinator
Transportation Planning Office

cc: Chris Belsky

DTSC - REGION 3
RECEIVED

MAY 15 1996

FMB - PERMITTING

15740 Agosta Drive
Hacienda Heights, CA 91745
May 13, 1996

Jamshid Ghazanshahi, Project Manager
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, CA 91201

Dear Sir:

I am a teacher of Special Education children who are legally designated Mildly and Severely Learning Handicapped. In the ten years that I have taught this population in Hacienda Heights, I am increasingly concerned about the great numbers of my Learning Handicapped students who live in the vacinity of the Quemetco Battery Recycling Facility at 720 South 7th Avenue in the City of Industry. Many exhibit signs of neuropsychological problems, cognitive impairments, become easily agitated, and have generally arrested development.

Surely it is not normal to have so many children with Learning Disabilities come from so small an area.

I ask for answers to the following questions:

1. Are you going to test every child between Orange Grove and Valley?. If not, why not?

2. Rather than just test hair or blood, are you willing to test bone so that you can see if there is long-term damage?

3. Are you going to test all Special Education students? They should be tested. A study titled The Influence of Lead Exposure and Toxicity to Children's Neurological Development and School Performance, by Sarah L. Kinball in Rural Partnerships: Working Together. Proceedings of the Annual National Conference of the American Council on Rural Special Education (ACRES) (14th, Austin, Texas, March 23-26, 1994) see RC 019 557 states that "...in some cases over 50 percent of students in Special education classes are lead poisoning victims."

4. A sampling of 125 children is not a big sample. Are you going to do a more valid study?

I am stunned that the Quemetco plant was allowed to stay in operation after having countless violations between 1987 and 1994. Studies show that even low levels of lead cause disastrous changes in children's brains.

Sincerely,

Jeanie Thiessen

Jeanie Thiessen

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

COMMUNITY ASSESSMENT QUESTIONNAIRE
QUEMETCO, INC.
QUEMETCO BATTERY RECYCLING FACILITY
720 SOUTH 7TH AVE., CITY OF INDUSTRY, CA 91746

1. How long have you lived or worked in this area?
   ___ 0-5 years ___ 13-20 years
   ___ 6-12 years ✓ 21 or more years

2. Prior to receiving the attached information, were you aware of the existence of the Quemetco Battery Recyling Facility? ✓ Yes ___ No

3. What is your current level of concern about this facility, if any?
   ___ No concerns ___ Low to moderate ✓ Moderate to high

4. Do you feel adequately briefed about this project? I feel briefing was biased toward the facility.

5. Do you have any concerns or issues that you feel need to be addressed about this project? If so, what are those concerns? lead in children

6. What officials, groups, or individuals should we contact regarding this permitting program?
   Jeanie Thiessen, 1530 S. Ridley, Hacienda Heights, CA 91745

7. What is the best way to provide you with information?
   ✓ Fact Sheets ___ Community Meetings ___ Other (please specify)

8. What is the best location for the following:
   Information Repository ______
   Public Hearing ______

9. Should a hearing be held for this project? ✓ Yes ___ No

Please provide any additional comments:
My special Education students have lead poisoning symptoms.

Please let us know if you would like to be on our mailing list:
Name Jeanie Thiessen
Address 15730 Agosta Dr., ~~Hacienda~~
City/State/Zip Code Hacienda Hgts, CA 91745

(Please mail your questionnaire or mailing list information to: Tom Mays, DTSC, 1011 N. Grandview Ave., Glendale, CA 92101.)

8201QNR.ENG
4/5/96

DTSC - REGION 3
RECEIVED

MAY 14 1996

FMB - PERMITTING

227 South 9th
La Puente, CA 91746
May 13, 1996

Jamshid Ghazanshahi, Project Manager
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, CA 91201

Dear Sir:

I am deeply concerned about lead pollutants damaging the health of my family. On November 2, 1995, my youngest child, Angel, 1 year, 11 months old, was tested for lead in his system and had a level of 12 micrograms. Naturally, I am quite concerned about his health. We have lived at the above address for 7 1/2 years. It is near the Quemetco Battery Recycling Facility at 720 South 7th Avenue in the City of Industry.

I do not prepare food in containers made with lead, nor have I given my children medicines or food containing lead. I am well informed of the damage lead can do to children so I am very careful. How this could have happened to him? Could it be airborne pollutants?

I have these questions:

1. What is the procedure for reporting this to public health authorities?

2. Are doctors required to report high levels of lead in children's blood to health officials? To whom do they report it?

3. Are you going to involve my child and others like him in a long term study on the effects of lead in children?

4. Are you going to do a *widespread* study of lead in children in this area? There are hundreds of children in this immediate neighborhood.

5. What is the radius of the affected area?

Please let me know the answers to these questions.

If officials involved in this project wish to meet with me and discuss this, I am willing. If so, I will have a translator available.

Sincerely,

Raquel Simental

Raquel Simental

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

COMMUNITY ASSESSMENT QUESTIONNAIRE
QUEMETCO, INC.
QUEMETCO BATTERY RECYCLING FACILITY
720 SOUTH 7TH AVE., CITY OF INDUSTRY, CA 91746

1. How long have you lived or worked in this area?
   ___ 0-5 years ___ 13-20 years
   _✓_ 6-12 years ___ 21 or more years

2. Prior to receiving the attached information, were you aware of the existence of the Quemetco Battery Recyling Facility? ___ Yes _✓_ No

3. What is your current level of concern about this facility, if any?
   ___ No concerns ___ Low to moderate _✓_ Moderate to high

4. Do you feel adequately briefed about this project? *no because they haven't informed all the people that live in this area.*

5. Do you have any concerns or issues that you feel need to be addressed about this project? If so, what are those concerns? *Yes, is the Quemetco Co. willing to fix their problems and asume responsibility for the lead emisions? Are the public health officials looking into this problem?*

6. What officials, groups, or individuals should we contact regarding this permitting program?
   ____
   ____

7. What is the best way to provide you with information?
   _✓_ Fact Sheets _✓_ Community Meetings ___ Other (please specify)

8. What is the best location for the following:
   Information Repository *Public Schools & Churches of the affected area*
   Public Hearing *Public Schools & Churches of the affected area*

9. Should a hearing be held for this project? _✓_ Yes ___ No

Please provide any additional comments:
I would like to know the radio of the area that is affected by the emision of lead-polutants. If possible, I like to have this information in Spanish.

Please let us know if you would like to be on our mailing list:
Name *Raquel Rosales*
Address *227 So. 9th. St. La Puente Ca. 91746*
City/State/Zip Code *La Puente Ca. 91746*

(Please mail your questionnaire or mailing list information to: Tom Mays, DTSC, 1011 N. Grandview Ave., Glendale, CA 92101.)

If possible send me the information in Spanish.

8201QNR.ENG
4/5/96

California Environmental Protection Agency
Department of Toxic Substances Control

Quemetco Battery Recycling Facility
Fact Sheet #2
City of Industry, California

Environmental Review
April 1996

Agencia del Protección del Medio Ambiente de California
Departamento del Control de Substancias Tóxicas

Quemetco, Instalación de Reciclaje de Baterías
Boletín Informativo #2
City of Industry, California

Revisión del Medio Ambiente
Abril 1996

INTRODUCTION

The purpose of this fact sheet is to inform the public about an upcoming meeting to discuss environmental issues relating to operations of the Quemetco, Inc. (Quemetco), battery recycling facility at 720 South 7th Ave., City of Industry, California.

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), has directed Quemetco to begin a study that will lead to preparation of an Environmental Impact Report (EIR) for Quemetco's application for a hazardous waste management permit. EIRs are required for all large offsite lead processing facilities in the state and serve as a guideline to help DTSC complete the permit determination process.

The public meeting, known as a Scoping Session, will discuss what should be addressed in the EIR for the Quemetco facility. The meeting will be held on April 24, 1996 at Los Altos High School. The 7 p.m. meeting is part of a 30-day public comment period, which runs from April 11-May 13.

PUBLIC MEETING
April 24, 1996
7 p.m.
Los Altos High School
Hacienda Room
15325 East Los Robles Avenue
Hacienda Heights, CA 91745

CONTINUED ON PAGE 2

INTRODUCCION

Este boletín informativo es para informar al público de una reunión durante la cual se tratarán los asuntos relacionados con la operación de Quemetco, Inc. (Quemetco), en la planta para el reciclaje de baterías, ubicada en el 720 South Seventh Avenue, City of Industry, California.

La Agencia de Protección del Medio Ambiente de California, Departamento del Control de Substancias Tóxicos (Department of Toxic Substances Control, conocido como DTSC), ha ordenado que Quemetco comience un estudio que llevará a la preparación de un Informe de Impacto Medio Ambiental (EIR, siglas en inglés) para la solicitud de un permiso de administración de desperdicios peligrosos a favor de Quemetco. Para toda planta grande del estado que procesa plomo que no esta producido en la planta se requieren los EIRs, los cuales sirven como una norma para ayudar a que DTSC lleve a cabo el proceso de determinación del permiso.

Una reunión pública, la cual se llama Scoping Session, tratará lo que se debe inquir en un EIR de

REUNION PUBLICA
24 de abril, 1996
7 p.m.
Los Altos High School
Hacienda Room
15325 East Los Robles Avenue
Hacienda Heights, CA 91745

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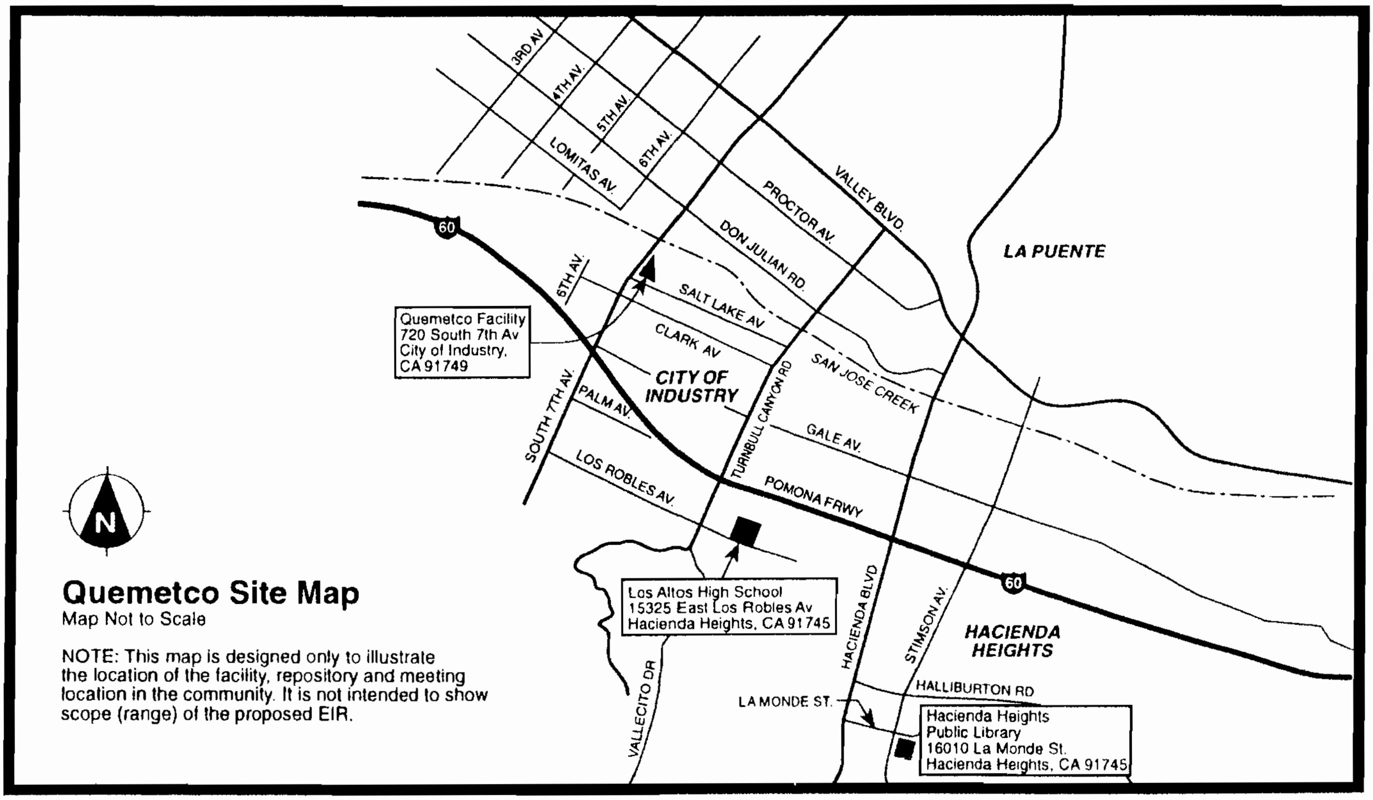

Quemetco Site Map
Map Not to Scale

NOTE: This map is designed only to illustrate the location of the facility, repository and meeting location in the community. It is not intended to show scope (range) of the proposed EIR.

SITE HISTORY AND BACKGROUND

The Quemetco facility is located on a 15-acre site at 720 South Seventh Avenue in the City of Industry, California (see map). The property is currently owned and operated by Quemetco, Inc., a Delaware Corporation. The project site is located in an area consisting predominantly of commercial and light industrial uses with manufacturing operations surrounding the project site on the east, north, and west. The northern boundary of the project site is San Jose Creek, a concrete-lined channel that flows east to west. Residential uses are located 600 to 700 feet south and southwest of the southern boundary of the site.

The Quemetco facility is an existing secondary lead smelting facility that operates for the purpose of recycling lead. The facility recovers and reprocesses lead from used automotive batteries and other sources. Approximately 95 percent of the lead refined at the facility is derived from used automobile batteries, while the remaining 5 percent comes from other batteries and scrap lead.

la planta de Quemetco. La reunión se celebrará el 24 de Abril, 1996 en la escuela secundaria, Los Altos High School. La reunión de las 7:00 pm es parte de un período de comentarios públicos de 30 días, que se realizará desde el 11 de Abril hasta el 13 de Mayo.

HISTORIAL Y ANTECEDENTES DEL SITIO

La instalación de Quemetco está ubicada en un área de 15 acres en el 720 South Seventh Avenue, City of Industry, California (véase el mapa). Actualmente, Quemetco es el propietario y administrador de dicha propiedad. Quemetco, Inc., es una sociedad anónima de Delaware. El sitio del proyecto se encuentra en un área en la que predominan comercios e industrias ligeras con negocios de fabricación a su alrededor en la parte este, norte y oeste. El sitio limita al norte con el canal San José Creek, un canal revestido con hormigón, y que fluye de este a oeste. Areas residenciales se encuentran de 600 a 700 pies del límite sur del sitio. Esta zona residencial se extiende del sur al sudoeste del local.

ENGLISH
CONTINUED FROM PAGE 2

The general process of recycling includes delivery of used batteries to the facility by truck, demolition of batteries, and resultant separation of lead, plastic, and other materials. Lead-containing materials recovered during the separation process, including lead plates, posts, and grids, are smelted and refined. The refined molten lead is poured into molds and cooled to form ingots and blocks, which are stored in a warehouse adjacent to the refinery area prior to shipment. The central portion of the property contains process units and areas involved in the recovery and reprocessing of lead. Other buildings include administrative offices, laboratories, and equipment maintenance areas. The wastewater treatment system is located at the northeastern corner of the site.

Quemetco is both a hazardous waste storage and treatment facility and also a generator of hazardous waste. In addition to lead, other hazardous constituents contained in batteries may include, but are not limited to, arsenic, barium, cadmium, chromium, and sulfuric acid.

Approximately 10 million batteries are recycled at the facility annually, returning 120,000 tons of lead to industry for new products. A battery recycling facility was established at the site by Western Lead Products in 1959 and was sold to Quemetco in 1970.

PERMIT STATUS

When the state's toxic program was founded in the late 1970s, all hazardous waste management facilities were directed to file for a temporary operating permit until the agency could do a more thorough review of each company and its operations.

The Quemetco facility submitted the first part of its application (Part A) on November 19, 1980, and was issued a temporary permit known as an Interim Status Document (ISD) on May 16, 1983. The company must now receive a permit from DTSC if it is to continue operations.

Quemetco filed the second, more extensive Part B application in April 1994. This part of the application involves preparation of a detailed operations plan, which includes health and safety procedures; chemical analyses of wastes handled onsite; financial liability; worker training procedures; emergency response

ESPAÑOL
CONTINUADA DE LA PAGINA 2

La instalación de Quemetco es una planta fundidora de plomo de segundo nivel ya existente que funciona para reciclar el plomo. La planta recobra y reprocesa plomo de baterías usadas de automóviles y otros fuentes. Aproximadamente un 95 por ciento del plomo refinado se deriva de las baterías usadas de automóviles, y el 5 por ciento restante proviene de otras baterías y desechos de plomo.

El proceso general de reciclaje comprende el transporte de baterías usadas a la planta por camión, demolición de baterías, y la resultante separación del plomo, plástico y otros materiales. Los materiales recuperados durante el proceso de separación que contienen plomo, incluyendo planchas de plomo, postes, y parrillas, son fundidos y refinados. El plomo refinado y fundido se vierte en moldes para que se enfríe y se transforme en barras y bloques, los cuales son depositados en un almacén adyacente a la refinería antes de ser enviados. La parte central de la propiedad contiene centros de procesamiento y otras áreas que se utilizan en la recuperación y reprocesamiento de plomo. Otros edificios que existen allí son las oficinas administrativas, laboratorios, y áreas de mantenimiento de equipo. El sistema de tratamiento de aguas negras está ubicado en la esquina nordeste del local.

Quemetco es una planta de almacenamiento y tratamiento de desperdicios peligrosos y también un generador de desperdicios peligrosos. Además del plomo, otros componentes peligrosos contenidos en las baterías incluyen, pero no se limitan al arsénico, bario, cadmio, cromo y ácido sulfúrico.

Aproximadamente 10 millones de baterías son recicladas anualmente en la planta. Como resultado, 120,000 toneladas de plomo son producidas para productos industriales nuevos. Western Lead Products estableció una planta para el reciclaje de baterías en 1959 y luego se la vendió a Quemetco en 1970.

ETAPA DE APROBACION DEL PERMISO

El programa estatal relacionado con los materiales tóxicos se fundó durante los últimos años de 1970. A todas las plantas de administración de desperdicios peligrosos se les exigió solicitar un permiso de operación provisional hasta que la agencia pudiera realizar una revisión cuidadosa de cada compañía y sus operaciones.

ENGLISH
CONTINUED FROM PAGE 3

procedures; and other important aspects regarding the company. DTSC is preparing an EIR before completing its permit determination process. This review should be complete in about one year. At that time, a tentative permit determination will be made, and more public comment will be sought.

CORRECTIVE ACTION

State and federal laws require all applicants for a hazardous waste facility permit to undergo a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA), which will determine if future cleanup or corrective action is necessary. RCRA is a federal statute governing the hazardous waste permitting process in the United States. California, through its statutes and regulations, implements and enforces most of RCRA's requirements.

The RFA identifies whether any facility or equipment is leaking or damaged, and whether any activities at the facility have caused, or have the potential to cause, any release of hazardous substances into the air, soil, or groundwater. This assessment features a review of company and historical records, visual site inspection, and if deemed necessary, limited soil sampling.

If contamination is found, then DTSC will direct the facility on conducting an investigation (RCRA Facility Investigation, or RFI) to further characterize the nature and extent of the contamination.

The RFI will then be used to prepare a draft cleanup plan, or Corrective Measures Study (CMS), which will be subject to public input.

Below is a chronology of corrective action activities for Quemetco.

RFA

In September 1987, the U.S. Environmental Protection Agency contracted with A.T. Kearney, Inc. to conduct an RFA at Quemetco. The RFA identified that contamination existed in more than 40 areas on the property, including a former surface impoundment (pond), used to store hazardous waste runoff, and a raw materials storage area. The concrete-lined pond was formerly used to collect and store wastewater from

ESPAÑOL
CONTINUADA DE LA PAGINA 3

La planta de Quemetco presentó la primera parte de su solicitud (Parte A) el 19 de noviembre de 1980 y se le emitió un permiso provisional, que se llama Documento Interino de Estado (ISD, siglas en inglés) el 16 de mayo de 1983. Para que la compañía siga operando, se le exige que obtenga un permiso de parte de DTSC.

Quemetco presentó la parte B de la solicitud, la cual más extensiva, en abril de 1994. Esta parte consiste en la preparación de un plan de operaciones detallado, y incluye procedimientos de salubridad y seguridad; análisis químicos de los desperdicios tratados en el sitio mismo; responsabilidad económica; procedimientos para la capacitación de trabajadores; procedimientos para responder a emergencias; y otros aspectos importantes de la compañía. DTSC está preparando un EIR antes de completar su proceso de determinación del permiso. Esta revisión deberá de llevarse a cabo dentro de un año. Para ese entonces, se hará una determinación del permiso provisional, y se solicitarán comentarios públicos adicionales.

ACCIONES CORRECTIVAS

Según las leyes estatales y federales, toda planta que solicite un permiso para una planta de desperdicios peligrosos debe someterse a una Evaluación de la Planta (RFA, siglas en inglés) conforme a la Ley de Conservación de Recursos y Recuperación (RCRA, siglas en inglés). Esto determinará la necesidad, si existiera una, de una limpieza futura o acción correctiva. RCRA es una ley federal que rige el proceso que permite que haya desperdicios peligrosos en los Estados Unidos. A través de sus leyes y reglamentos, California pone en práctica y hace cumplir la mayoría de los requisitos de RCRA.

La RFA señala cualquier fuga o daño en la planta o el equipo, y las actividades que pudieran haber causado, o tengan la potencialidad de causar en el futuro, un escape de substancias peligrosas al aire, suelo, o aguas subterráneas. Esta evaluación incluye una revisión de la compañía y los registros históricos, inspección visual del sitio, y si es necesario, muestras limitadas de la tierra.

Si se encuentra contaminación, DTSC dirigirá a la planta a realizar una investigación (RCRA Investigación de la Planta, o RFI, siglas en inglés) para caracterizar la naturaleza y alcance de la contaminación.

process operations as well as rainfall runoff from the site. An Administrative Order on Consent was entered into with the facility to address two areas first as those that required investigation and remediation.

Closure

In 1993, Quemetco and DTSC approved a closure plan for the onsite pond that had been out of use since 1986, when it was replaced by a tank system. Closure activities included removing contaminated soils, decontaminating equipment and structures, and soil sampling. DTSC obtained public input and approved the closure plan in 1993. Remedial activities associated with the closure plan have been completed.

RFI/CMS

As part of the RFI process, DTSC and Quemetco will conduct a followup investigation to further characterize the nature and extent of contamination found during the RFA. A start date for this investigation has not yet been set. The next step is an RFI. The information will be used to prepare the cleanup plan (CMS). This regulatory procedure will proceed regardless of the final permit determination. The public will be kept apprised of this activity, and of opportunities for public involvement.

ENFORCEMENT HISTORY

Quemetco has been inspected by DTSC approximately nine times during the period from 1987 through 1994. Violations ranging in nature from minor to more serious were alleged in every inspection except in 1988. The violations reported for the most recent inspection on July 13, 1994, were comparatively minor: failure to mark the date on a drum label, failure to keep a drum closed, minor spills, and paperwork violations. These resulted in Quemetco's correcting the violations and paying a fine of $2,400.

Quemetco and DTSC settled the more serious violations pursuant to an October 1994 consent order. These violations included inadequate waste analysis, employee training, and facility closure plans; improper management of hazardous waste piles; open and unlabeled containers; lack of warning signs; and paperwork violations. DTSC and Quemetco settled the

El RFI será utilizada para preparar un plan en borrador de limpieza, o Estudio de Medidas Correctivas (CMS, siglas en inglés). Este plan será sometido a las opiniones públicas.

Sigue a continuación una cronología de medidas correctivas para Quemetco.

RFA

En septiembre de 1987, La Agencia de Protección del Medio Ambiente (EPA, siglas en inglés) contrató a A. T. Kearney, Inc. para dirigir una RFA en Quemetco. La RFA señaló la existencia de contaminación en más de 40 áreas que se encuentran en la propiedad, incluyendo un previo estanque de depósito superficial que se utilizó para almacenar desperdicios peligrosos y como un área de depósito de materias primas. El estanque revestido con hormigón fue usado anteriormente para recoger y almacenar aguas residuales producidas en el proceso de operación, y también aflujo de lluvia. Se formalizó una Orden Administrativa de Common Acuerdo con la planta para tratar con dos áreas. Estas dos áreas exigieron primero una investigación y medidas correctivas.

Clausura

En 1993, Quemetco finalizó un plan de clausura de un estanque en el sitio que no había sido utilizado desde 1986, el año en que fue reemplazado por un sistema de tanque . Las actividades de clausura incluyeron la eliminación de tierras contaminadas, decontaminación de equipos y estructuras, y muestreo de tierra. DTSC obtuvo opiniones públicas y aprobó el plan de clausura en 1993. Medidas correctivas asociadas con el plan de clausura ya se han llevado a cabo.

RFI/CMS

Como parte del proceso de preparar el RFI, DTSC y Quemetco será conducir una investigación consecutiva para caracterizar el tipo y alcance de la contaminación encontrada durante el RFA. Una fecha para el comienzo del proyecto no se ha fijado aún. El siguiente paso es el RFI. El RFI será usada para preparar el plan de limpieza (CMS). Este procedimiento regulador procederá a pesar de la determinación final del permiso. Al público se le mantendrá informado de esta actividad, y de las oportunidades para la participación pública.

case by Quemetco's coming into full compliance and paying DTSC penalties and administrative costs of $99,000.

DTSC plans to continue with periodic inspections at Quemetco to ensure the company remains in compliance with the law.

OTHER PREVIOUS ACTIONS AND INVESTIGATIONS

In addition to DTSC's continuing review of Quemetco's operating plan, the Los Angeles County Department of Health Services, Toxics Epidemiology Program, conducted a study to determine if the facility is affecting blood lead levels of children living nearby. The study involved 125 children, aged 1 to 5 years, who live in Hacienda Heights, approximately 600 feet from the Quemetco facility. A control group of children from West Covina where there is no lead facility was also examined. The study concluded that blood lead levels in children living near the Quemetco facility were not elevated. The County blood lead study has been placed in the information repositories listed in this fact sheet.

THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

As part of the California Environmental Quality Act (CEQA), state and local government agencies are required to identify the potential significant impacts to the environment and, if possible, provide mitigation measures to make these impacts insignificant. Compliance with CEQA is required for all new projects requiring agency approval and must be completed before a permit determination can be made.

DTSC also specifically requires that EIRs should be automatically prepared for all large off-site treatment and storage facilities, such as Quemetco. DTSC will be the lead agency for preparation of the EIR for the Quemetco facility.

DTSC will hold the Scoping Session (see Introduction for details) to receive public input on environmental issues (e.g., traffic and air emissions) that will be studied in this document. This meeting will be part of

HISTORIA DE CUMPLIMIENTO

Quemetco ha sido inspeccionado aproximadamente 9 veces a partir de 1987 hasta 1994. En todas las inspecciones, menos en una en 1988, se encontraron infracciones que varían desde leve a grave. En comparación, las infracciones reportadas durante la más reciente inspección el 13 de julio de 1994, eran de menor importancia: falta de marcar la fecha en un rótulo del barril, falta de mantener el barril cerrado, derrames menores, e infracciones de papeleo. Como resultado, Quemetco corrigió los problemas citados y pagó una multa de $2,400.

Según una orden de conformidad en Octubre de 1994, Quemetco y DTSC rectificaron los problemas citados más serios. Estas infracciones incluyeron insuficiencias en los análisis de desperdicios, capacitación de empleados, y planes para la clausura de la planta; administración inadecuada de pilas de desperdicios peligrosos; recipientes abiertos y no marcados; falta de avisos de peligro; e infracciones de papeleo. El DTSC y Quemetco llegaron a un acuerdo, el cual Quemetco cumplió, y le pagó a DTSC $99,000 en multas y gastos administrativos.

El DTSC tiene la intención de inspeccionar Quemetco con regularidad para asegurar que la compañía siga cumpliendo con las leyes.

OTRAS ACCIONES E INVESTIGACIONES PREVIAS

Además de una revisión continua del plan de operación de Quemetco, el Programa de Epidemiología, Departmento de Servicios de Salud del Condado de Los Angeles, realizó un estudio para determinar el efecto que tenía la planta en el nivel de plomo en la sangre de niños en la vecindad. El estudio comprendió a 125 niños, de 1 a 5 años de edad, que viven en Hacienda Heights a una distancia de 600 pies de la planta. En West Covina, donde no existe ninguna planta, un grupo experimental de niños fue examinado también. El estudio determinó que los niveles de plomo en la sangre de los niños que viven cerca de la planta de Quemetco no estaban elevados. El estudio de plomo en la sangre del condado ha sido puesto en los repositorios informativos enumerados en este boletín.

a 30-day public comment period, during which interested parties may also submit written comments to Jamshid Ghazanshahi, Ph.D., Project Manager, DTSC, 1011 N. Grandview Ave., Glendale, CA 91201, (818) 551-2871.

The public will have the opportunity to review and comment on the Draft EIR once it is complete. The EIR will serve as a guide during the permit determination process.

AIR EMISSIONS AND HEALTH RISK ASSESSMENT

A Health Risk Assessment (HRA) to determine any increase in health risk associated with facility operations is being conducted and will be included in the EIR. The HRA will also be reviewed by the South Coast Air Quality Management District (SCAQMD), DTSC, other agencies, and the public before it is finalized and a permit determination is made.

LEY DE CALIDAD DEL MEDIO AMBIENTE DE CALIFORNIA

Según la Ley de Calidad del Medio Ambiente de California (CEQA, siglas en inglés), a las agencias estatales y municipales se les exige identificar los posibles impactos significantes en el medio ambiente, y cuando sea posible, proveer medidas mitigantes para que sean menos significantes. Se exige cumplimiento con CEQA . Todo proyecto nuevo que requiera aprobación de la agencia, tiene que cumplir con los requisitos de CEQA antes de que se pueda llevar a cabo una determinación del permiso.

DTSC también requiere específicamente que los EIRs sean preparados para toda instalación grande de tratamiento y almacenamiento que reciben o otan tratamiento a despendicio no producides en la planta tal como Quemetco. DTSC funcionará como la agencia principal en la preparación del EIR de la planta de Quemetco.

DTSC tendrá la Scoping Session (véase Introducción para más detalles) para escuchar opiniones públicas sobre los temas medio ambientales (es decir, tráfico y emisiones al aire) que se estudiarán en este documento. Esta reunión es parte de un período de comentarios públicos de 30 días durante el cual todas partes interesadas podrán presentar comentarios por escrito a Jamshid Ghazanshahi, Ph.D., Encargado del Proyecto, DTSC 1011 N. Grandview Ave., Glendale, CA 91201, (818)551-22871.

Cuando el borrador del EIR esté preparado, el público tendrá la oportunidad de revisar y comentar sobre el mismo. El EIR servirá de guía durante el proceso de determinación del permiso.

EVALUACION DE EMISIONES AL AIRE Y RIESGOS A LA SALUD

Una evaluación de riesgos a la salud (HRA, siglas en inglés) se está realizando para determinar si cualquier riesgo a la salud asociado con las operaciones de la planta se han aumentado. Se encontrará esta evaluación en el EIR. Antes de que se finalice la evaluación y se lleve a cabo una determinación del permiso, el proyecto será revisado también por la Administración de Calidad del Aire del Distrito South

INFORMATION REPOSITORIES

DTSC
1011 N. Grandview Avenue
Glendale, CA 91201
(818) 551-2871

Hacienda Heights Public Library
16010 La Monde Street
Hacienda Heights, CA 91745
(818) 968-9356

If you have questions or concerns about the permit or environmental review process, or would like to be added to the site mailing list, please contact:

Jamshid Ghazanshahi
Permit Writer
☎ (818) 551-2871

or
Tom Mays
Public Participation Specialist
☎ (818) 551-2837

Monday thru Friday, 8 a.m. - 5 p.m.

California Environmental Protection Agency
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, CA 91201

CONTINUED ON PAGE 9

Coast (SCAQMD, siglas en inglés), DTSC, otras agencias y el público.

REPOSITORIOS DE INFORMACION

DTSC
1011 N. Grandview Avenue
Glendale, CA 91201
(818) 551-2871

Biblioteca Pública de Hacienda Heights
16010 La Monde
Hacienda Heights, CA 91745
(818) 968-9356

Si usted tiene alguna pregunta o preocupación con respecto al permiso o proceso de revisión del medio ambiente, o si desea que su nombre sea agregado a la lista de direcciones a las que se envía información, por favor póngase en contacto con:

Jamshid Ghazanshahi
Autor del Permiso
(818) 551-2871
o
Tom Mays
Especialista en Participación Pública
(818) 551-2837

Lunes a Viernes
8 a.m. - 5 p.m.

Agencia de Protección del Medio Ambiente de California
Departamento de Control de Substancias Tóxicas
1011 N. Grandview Avenue
Glendale, CA 91201

CONTINUIDO A LA PAGINA 9

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

COMMUNITY ASSESSMENT QUESTIONNAIRE
QUEMETCO, INC.
QUEMETCO BATTERY RECYCLING FACILITY
720 SOUTH 7TH AVE., CITY OF INDUSTRY, CA 91746

1. How long have you lived or worked in this area?
   ___ 0-5 years ___ 13-20 years
   ___ 6-12 years ___ 21 or more years

2. Prior to receiving the attached information, were you aware of the existence of the Quemetco Battery Recyling Facility? ___ Yes ___ No

3. What is your current level of concern about this facility, if any?
   ___ No concerns ___ Low to moderate ___ Moderate to high

4. Do you feel adequately briefed about this project? ______________________________

   ____

5. Do you have any concerns or issues that you feel need to be addressed about this project? If so, what are those concerns? ______________________________

   ____

6. What officials, groups, or individuals should we contact regarding this permitting program?

   ____

   ____

7. What is the best way to provide you with information?
   ___ Fact Sheets ___ Community Meetings ___ Other (please specify)

8. What is the best location for the following:
   Information Repository ______________________________
   Public Hearing ______________________________

9. Should a hearing be held for this project? ___ Yes ___ No

Please provide any additional comments:

____

____

Please let us know if you would like to be on our mailing list:
Name ______________________________
Address ______________________________
City/State/Zip Code ______________________________

(Please mail your questionnaire or mailing list information to: Tom Mays, DTSC, 1011 N. Grandview Ave., Glendale, CA 92101.)

AGENCIA DE PROTECCION DEL MEDIO AMBIENTE DE CALIFORNIA
DEPARTAMENTO DEL CONTROL DE SUBSTANCIAS TOXICAS

CUESTIONARIO PARA LA COMUNIDAD
QUEMETCO, INSTALACION DE RECICLAJE DE BATERIAS
720 S. 7TH AVE., CITY OF INDUSTRY, CALIFORNIA 91746

1. ¿Hace cuánto tiempo que usted vive o trabaja en esta comunidad?
   _____ 0-5 años _____ 13-20 años _____ 6-12 años _____ 21 años or más

2. Antes de recibir la información adjunta, ¿tenía usted conocimiento de que existía la instalacion de reciclaje de baterias, la cual se llama Quemetco?
   _____Sí _____No

3. Actualmente, ¿cuál es su nivel de interés con respecto a este instalación?
   _____Ningún interés _____Poco a mediano _____Mediano a mucho interés

4. ¿Se considera usted adecuadamente informado sobre este proyecto?
   ____
   ____

5. ¿Tiene usted alguna preocupación o tema que debe considerarse con respecto a este proyecto? Explíque cuál(es) son: ______________________________
   ____

6. ¿Con cuáles funcionarios, grupos o individuos debemos comunicarnos sobre este proyecto de permiso? ______________________________
   ____

7. ¿Cuál es el mejor modo de proveerle a usted la información?
   _____Boletines Informativos _____Reuniones en la Comunidad
   _____Otro modo (Por favor, sea específico) ______________________

8. ¿Cuál es la mejor localidad para lo siguiente?:
   Repositorio de Información:______________________________
   Audiencia Pública:______________________________

9. ¿Cree usted que una audiencia es necesaria con respecto a este proyecto? _____ Sí _____No

   Por favor, haga cualesquier comentarios adicionales:
   ____
   ____

   Si usted desea que se le agregue su nombre a la lista de correspondencia, por favor llene los datos siguientes:
   Nombre:______________________________
   Dirección:______________________________
   Ciudad/Estado/Zona Postal______________________________

(Favor de remitir su cuestionario, o datos para la lista de correspondencia a: Tom Mays, DTSC, 1011 N. Grandview Ave., Glendale, Ca 92101.)

COMMUNITY INVOLVEMENT

Community involvement is strongly encouraged during the decision-making process. Currently, DTSC is conducting a community assessment involving interviews with residents and interested parties. As part of this assessment, we are sending the attached questionnaire to collect further information from the public. (Please return to Tom Mays, DTSC, 1011 N. Grandview Ave., Glendale, CA 91201).

Following completion of this assessment, a Public Participation Plan (PPP) will be prepared, outlining community concerns, project information, and community involvement activities. This PPP will be placed in the repositories listed in this fact sheet.

Additional information, including published data, work plans, fact sheets, and other materials, will be made available throughout the course of the project. When requesting to see materials at the established public information repositories, please ask the librarian for the Quemetco site reference materials.

PARTICIPACION DE LA COMUNIDAD

Se pide la participación de la comunidad durante el proceso de decisiones. Actualmente, DTSC está dirigiendo una evaluación comunitaria con residentes y partes interesadas. Les enviamos el cuestionario adjunto como parte de la misma, para recoger datos adicionales del público. (Por favor, devuélvanselo a Tom Mays, DTSC, 1011 N. Grandview Ave., Glendale, Ca 91201).

Después de que la evaluación sea completa, un Plan de Participación Pública (PPP, siglas en inglés) será preparado apuntando las preocupaciones e intereses de la comunidad y métodos para difundir al público la información sobre el proceso de permisos. Este PPP será puesto en los repositorios enumerados en este boletín.

Información adicional, incluyendo los datos publicados, planes laborales, boletines informativos, y otros materiales, estarán a su disposición durante el transcurso del proyecto. Cuando ustedes pidan los materiales en los repositorios de información pública establecidos, por favor pregúntenle al bibilotecario por materiales respecto al sitio Quemetco.

QUEMETCO PROJECT
MAILING COUPON
CUPON POSTAL

If you or someone you know did not receive this fact sheet, and would like to be placed on the mailing list, please fill out the coupon below, and mail to:

Tom Mays
DTSC
1011 N. Grandview Avenue
Glendale, California 91201

Si usted, o alguien que usted conoce, no recibió este boletín informativo y le gustaría agregarse a la lista de nombres y direcciones, por favor llene este cupón y envíeselo a:

Tom Mays
DTSC
11011 N. Grandview Avenue
Glendale, California 91201

Name/Nombre:____________________
Affiliation/Asociación al Grupo:____________________
Address/Dirección:____________________
City, State, Zip/Ciudad, Estado, Zona Postal:____________________
Telephone Number/Número Telefónico:____________________

California Environmental Protection Agency
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, CA 91201

Mailing Label Here

INSIDE:	Comments Sought, Environmental Review, Quemetco
ADENTRO:	Le Buscan de Comentarios, Revisión del Medio Ambiente, Quemetco

California Environmental Protection Agency
Department of Toxic Substances Control

PUBLIC COMMENT PERIOD AND SCOPING MEETING
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR
QUEMETCO, INC.
QUEMETCO BATTERY RECYCLING FACILITY
720 SOUTH 7TH AVENUE, CITY OF INDUSTRY, CA 91746
COMMENT PERIOD: APRIL 11, 1996 TO MAY 13, 1996
SCOPING MEETING: APRIL 24, 1996
LOS ALTOS HIGH SCHOOL
15325 E. LOS ROBLES AVENUE
HACIENDA HEIGHTS, CA 91745
TIME: 7:00 PM

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), is providing a public scoping meeting and public comment period to allow public comment on a proposed Environmental Impact Report (EIR) to be prepared under the California Environmental Quality Act (CEQA). Once approved, DTSC will use the EIR in making a decision to either approve, modify or deny a hazardous waste facility permit application for Quemetco, Inc. (Quemetco), located at 720 South Seventh Avenue, City of Industry, California.

The public scoping meeting will be held on
April 24, 1996 at Los Altos High School
Hacienda Room
15325 E. Los Robles Avenue
Hacienda Heights, at 7:00 pm

Background: Quemetco, Inc. located at 720 South Seventh Avenue, City of Industry, California, is a Delaware Corporation. The Quemetco facility was established in 1959 by Western Lead Products and sold to Quemteco in 1970. The facility is both a hazardous waste storage and treatment facility and also a generator of hazardous waste. It is an existing secondary lead smelting facility that operates for the purpose of recycling lead and recovers and reprocesses lead from used automotive batteries and other sources.

Quemetco submitted the first part of its application (Part A) on November 19, 1980, and was issued a temporary permit known as a Interim Status Document (ISD) on May 16, 1983. The company must now receive a permit from DTSC if it is to continue recycling 10 million batteries annually and returning 120,000 tons of lead to industry for new products.

Permit Application Request: DTSC is currently considering Quemetco's Part B permit application (under the California Code of Regulations, Title 22, Section 66270, Article 2, in accordance with the Federal Resource Conservation and Recovery Act--RCRA), which Quemetco filed in April 1994. The permit request is for the continuance of battery recycling, including truck delivery procedures, demolition of batteries, and resultant separation of lead, plastic and other materials. Lead-containing materials recovered during the separation process, including lead plates, posts, and grids, are smelted and refined. The facility also generates other hazardous constituents contained in batteries. They include, but are not limited to, arsenic, barium, cadmium, chromium, and sulfuric acid. In its hazardous waste permit application (Part B), Quemetco is proposing to increase the number of its waste classifications.

Future Public Involvement: Comments received during the comment period and scoping sessions will be used to prepare a draft EIR. The draft EIR will be used by the project team to make a draft permit determination. DTSC will circulate the draft EIR and draft permit decision for a minimum of forty-five (45) days and will hold another public hearing. Based upon all comments received, DTSC will either modify, approve or deny Quemetco's permit application.

For More Information: The full administrative record for this facility is available for review during office hours at the following addresses:

Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201
Contact: Jamshid Ghazanshahi
(818) 551-2871

Hacienda Heights Public Library
16010 La Monde Street
Hacienda Heights, California 91745
Contact: Reference Material Repository
(818) 968-9356

Important Dates: The public comment period begins April 11, 1996 and ends May 13, 1996. In determining the areas to be studied in the EIR, DTSC will consider all comments received during the Scoping Meetings and all written comments postmarked by May 13, 1996. Submit written comments to:

Jamshid Ghazanshahi, Project Manager
(818) 551-2871

Telephone Contacts: DTSC encourages inquiries from all interested parties. If you have questions or want additional information regarding this project, please contact either:

Tom Mays, Public Participation Specialist (818) 551-2837, or
Jamshid Ghazanshahi, Project Manager (818) 551-2871

(Space below for use of County Clerk only)

THE HACIENDA HEIGHTS HIGHLANDER

1210 N. Azusa Canyon Road
West Covina, CA 91790

PR

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States, and a
of the county aforesaid; I am over the ag
eighteen years, and not a party to or inte
in the above-entitled matter. I am the pr
clerk of the printer of THE HACIENDA HE
HIGHLANDER, a newspaper of general cir
printed and published weekly in the Coun
of Los Angeles, and which newspaper ha
adjudged a newspaper of general circula
by the Superior Court of the County of
Los Angeles, State of California, on the
date of July 13, 1976, Case Number
C203036. The notice, of which the anne
is a true printed copy, has been publishe
in each regular and entire issue of said
newspaper and not in any supplement the
on the following dates, to wit:

4/11/96

I declare under penalty of perjury that th
foregoing is true and correct.

Executed at West Covina, LA Co. Californ
this 11 day of APRIL

Signature

PUBLIC COMMENT PERIOD AND SCOPING MEETING
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR QUEMETCO, INC.
QUEMETCO BATTERY RECYCLING FACILITY
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For More Information: The full administrative record for this facility is available for review during office hours at the following addresses:

Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201
Contact: Jamshid Ghazanshahi
(818) 551-2871

Hacienda Heights Public Library
16010 La Monde St.
Hacienda Heights, California 91745
Contact: Reference Material Repository
(818) 968-9356

Important Dates: The public comment period begins April 11, 1996 and ends May 13, 1996. In determining the areas to be studied in the EIR, DTSC will consider all comments received during the Scoping Meetings and all written comments postmarked by May 13, 1996. Submit written comments to:

Jamshid Ghazanshahi, Project Manager
(818) 551-2871

Telephone Contacts: DTSC encourages inquiries from all interested parties. If you have questions or want additional information regarding this project, please contact either:

Tom Mays, Public Participation Specialist (818) 551-2837 or, Jamshid Ghazanshahi, Project Manager (818) 551-2871

Publish: April 11, 1996
Hacienda Hts. Highlander **Ad No. 12807**

(Space below for use of County Clerk only)

LA PUENTE VALLEY JOURNAL

1210 N. Azusa Canyon Road
West Covina, CA 91790

PRO

STATE OF CALIFORNIA

County of Los Angeles

I am a citizen of the United States, and a res of the county aforesaid; I am over the age o eighteen years, and not a party to or interes in the above-entitled matter. I am the princi clerk of the printer of LA PUENTE VALLEY JC a newspaper of general circulation printed a published weekly in the City of La Puente, C of Los Angeles, and which newspaper has be adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, on the date of March 2, 1934, Case Number 369-138. The notice, of which the annexe is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement therec on the following dates, to wit:

4/11/96

I declare under penalty of perjury that the foregoing is true and correct.

Executed at West Covina, LA Co. California

this 11 day of ~~APRIL~~

[signature]

Signature

PUBLIC COMMENT PERIOD AND SCOPING MEETING
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR
QUEMETCO, INC.
QUEMETCO BATTERY RECYCLING FACILITY
720 SOUTH SEVENTH AVENUE, CITY OF INDUSTRY, CA 91746
COMMENT PERIOD: APRIL 11, 1996 TO MAY 13, 1996
SCOPING MEETING: APRIL 24, 1996
LOS ALTOS HIGH SCHOOL
15325 E. LOS ROBLES AVENUE
HACIENDA HEIGHTS, CA 91745
TIME: 7:00 PM

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), is providing a public scoping meeting and public comment period to allow public comment on a proposed Environmental Impact Report (EIR) to be prepared under the California Environmental Quality Act (CEQA). Once approved, DTSC will use the EIR in making a decision to either approve, modify or deny a hazardous waste facility permit application for Quemetco, Inc. (Quemetco), located at 720 South Seventh Avenue, City of Industry, California.

The public scoping meeting will be held on
April 24, 1996 at the Los Altos High School
Hacienda Room
15325 E. Los Robles Avenue
Hacienda Heights, at 7:00 pm

Background: Quemetco, Inc. located at 720 South Seventh Avenue, City of Industry, California, is a Delaware Corporation. The Quemetco facility was established in 1959 by Western Lead Products and sold to Quemetco in 1970. The facility is both a hazardous waste storage and treatment facility and also a generator of hazardous waste. It is an existing secondary lead smelting facility that operates for the purpose of recycling lead and recovers and reprocesses lead from used automotive batteries and other sources.

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Tom Mays, Public Participation Specialist (818) 551-2837 or, Jamshid Ghazanshahi, Project Manager (818) 551-2871

Publish: April 11, 1996

La Puente Valley Journal Ad No. 22465

(Space below for use of County Clerk only)

SAN GABRIEL VALLEY TRIBUNE

1210 N. Azusa Canyon Road
West Covina, CA 91790

PROOF OF I

(2015.

TATE OF CALIFORNIA

ounty of Los Angeles

a citizen of the United States, and a resident ne county aforesaid; I am over the age of teen years, and not a party to or interested e above-entitled matter. I am the principal < of the printer of SAN GABRIEL VALLEY TRIBUNE, wspaper of general circulation printed and ished daily in the City of West Covina, County os Angeles, and which newspaper has been dged a newspaper of general circulation he Superior Court of the County of Angeles, State of California, on the of September 10, 1957, Case Number 891. The notice, of which the annexed true printed copy, has been published ich regular and entire issue of said spaper and not in any supplement thereof ne following dates, to wit:

10/96

lare under penalty of perjury that the going is true and correct.

uted at West Covina, LA Co. California

10 day of APRIL, 19 96

Judy A Nobb

Signature

PUBLIC COMMENT PERIOD AND SCOPING MEETING
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR QUEMETCO, INC.
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720 SOUTH SEVENTH AVENUE, CITY OF INDUSTRY, CA 91746
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Publish: April 10, 1996
San Gabriel Valley Tribune #10699

PROOF OF PUBLICATION
(2015.5C.C.P.)

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitle matter. I am the principal clerk of the printer of La Opinión a newspaper of general circulation, printed and published daily in the city of Los Angeles, county of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of July 28, 1969, Case Number: 950176; that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

4/11

all in the year 19 96

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this 16 day of Apr, 19 96

Francisco M. Leach

La Opinión

411 West 5th Street
Los Angeles, California 90013
(213) 896-2272 * Fax#(213) 896-2238

This space is for the County Clerk's filing Stamp

AGENCIA DE PROTECCION DEL MEDIO AMBIENTE DE CALIFORNIA

DEPARTAMENTO DEL CONTROL DE SUBSTANCIAS TOXICAS

PERIODO DE COMENTARIOS PUBLICOS Y REUNION PUBLICA DE INTENCION

NOTIFICACION DE PREPARACION DE UN INFORME DE IMPACTO MEDIO AMBIENTAL PARA QUEMETCO, INC.

QUEMETCO, UNA INSTALACION DE RECICLAJE DE BATERIAS 720 SOUTH 7TH AVENUE, CITY OF INDUSTRY, CA 91746

PERIODO DE COMENTARIOS: 11 DE ABRIL, 1996 HASTA 13 MAYO 1996 REUNION PUBLICA DE INTENCION: 24 ABRIL, 1996, LOS ALTOS HIGH SCHOOL, HACIENDA ROOM, 15325 E. LOS ROBLES AVENUE, HACIENDA HEIGHTS, CA 91745

HORA: 7:00 PM

La Agencia de Protección del Medio Ambiente de California, Departamento de Control de Sustancias Tóxicas (DTSC), está facilitando una reunión pública de intención (la cual se llama Scoping Session), y un periodo de comentarios públicos, para que el público tenga la oportunidad de comentar sobre un Informe del Impacto Medio Ambiental (EIR, siglas en inglés). Este informe ya propuesto, será preparado según la Ley de Calidad Medio Ambiental de California (CEQA, siglas en inglés). Cuando esté aprobado DTSC utilizará el EIR en su decisión de aprobar, modificar o recharle a Quemetco, Inc., (Quemetco) la solicitud de permiso para una instalación de desperdicios peligrosos.

La Reunión tendrá lugar
24 abril 1996 en la escuela secundaria Los Altos High School
Hacienda Room
15325 E. Los Robles Avenue
Hacienda Heights, a las 7:00 p.m.

ANTECEDENTES: Quemetco, Inc, está ubicado en el 720 South Seventh Avenue, City of Industry, California, Quemetco, Inc., es una sociedad anónima de Delaware. La planta Quemetco fue establecida en 1959 por Western Lead Products, y luego se la vendió a Quemetco en 1970. La instalación es una planta de depósito y tratamiento de desperdicios peligrosos y también un generador de desperdicios peligrosos. Es una planta fundidora de plomo ya existente de segundo nivel que funciona para reciclar el plomo. La planta recobra y reprocesa plomo de baterías usadas de automóviles y de otros fuentes.

Quemetco presentó la primera parte de su solicitud (Parte A) el 19 de noviembre de 1980. Se le concedió un permiso provisional, que se llama Documento Interino de Estado (ISD, siglas en inglés) el 16 de mayo de 1983. Para que la compañía continúe reciclando 10 millones de baterías anualmente y devolviendo 120,000 toneladas de plomo para nuevos productos industriales, se le exige que obtenga un permiso de parte de DTSC.

Petición para Solicitud de Permiso: Actualmente, DTSC está examinando la solicitud de permiso de parte de Quemetco, parte B (según el Código de Reglamentos de California, California Code of Regulations, Title 22, Section 66270, Article 2, de acuerdo con la Ley Federal de Conservación y Recuperación de Recursos, RCRA, siglas en inglés), la cual fue presentada por Quemetco en abril de 1994. El permiso pide una continuación de operaciones para el proceso general de reciclaje de baterías. Estas operaciones incluyen el transporte de las baterías a la planta por camión, demolición de baterías, y la resultante separación del plomo, plástico y otros materiales. Los materiales recuperados durante el proceso de separación que contienen plomo, incluyendo planchas de plomo, postes, y parrillas, son fundidos y refinados. La planta produce otros componentes peligrosos contenidos en las baterías también. Estos incluyen, pero no se limitan al arsénico, bario, cadmio, cromo y ácido sulfúrico. Dentro de la solicitud de permiso de desperdicios peligrosos (Parte B), Quemetco propone un aumento en el número de clasificaciones de desperdicios.

Participación de la Comunidad en el Futuro: Se aplicarán los comentarios recibidos durante el período de comentarios y reuniones de intención (scoping sessions) en la prepración de un borrador del EIR. El EIR en borrador será utilizado por un grupo de trabajo del proyecto para tomar una determinación del permiso en borrador. DTSC difundirá el borrador del EIR y el borrador de la decisión del permiso por un mínimo de cuarenta y cinco (45) días. También se llevará a cabo otra audiencia pública. Basándose en todos los comentarios recibidos, DTSC modificará, aprobará o rechazará la solicitud de permiso de Quemetco.

Como seguir Datos Adicionales: El archivo administrativo entero para esta instalación está disponible para cualquier revisión durante las horas de oficina en los siguientes lugares:

Departament of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, CA 91201
Comuníquese con: Jamshid Ghazanshahi
(818) 551-2871

Hacienda Heights Public Library
16010 La Monde
Hacienda Heights, CA 91745
Comuníquese con: Reference Material Repository
(818) 968-9356

Fechas Importantes: El período de comentarios públicos comienza el 11 de abril 1996 y termina el 13 mayo 1996. Para determinar los temas a tratar en el EIR, DTSC considerará todos los comentarios recibidos durante las Reuniones de Intención (Scoping Sessions) y todos comentarios escritos con una fecha postal del 13 mayo 1996, a más tardar. Remita los comentarios escritos a:

Jamshid Ghazanshahi, Gerente del Proyecto
(818) 551-2871

Comunicación por Teléfono: DTSC les anima a todas partes interesadas a que investiguen el proyecto. Si usted tiene alguna pregunta o desea mayor información con respecto a este proyecto, por favor comuníquese con cualquier de las dos siguientes personas:

Tom Mays, Especialista de Participación Pública, (818) 551-2837, ó Jamshid Ghazanshahi, Gerente del Proyecto, (818) 551-2871

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Public Scoping Meeting)
In the Matter of:)
)
Quemetco)
_______________________________________)

Date:	Wednesday, April 24, 1996
Commenced at:	7:15 p.m.
Concluded at:	10:15 p.m.
Place:	Los Altos High School Hacienda Room 15325 East Los Robles Avenue Hacienda Heights, California
Reporter:	Connie Mardon

Page 2

APPEARANCES

Environmental Consultant for Quemetco:

THOMAS C. RYAN
CHAMBERS GROUP, INC.
16700 Aston Street
P.O. Box 57002
Irvine, California 92619-7002
(714) 261-5414

Public Participation Specialist.

TOM MAYS
California Environmental Protection Agency
Department of Toxic Substances Control
Office of Community Relations
1011 North Grandview Avenue
Glendale, California 91201
(818) 551-2837

Other Speakers:

JAMSHID GHAZANSHAHI, Ph.D.
GERALD CHERNOFF, Ph.D.
PHIL CHANDLER, Ph.D.

Page 3

Hacienda Heights, California, Wednesday, April 24, 1996

MR. MAYS: Thanks for coming tonight.

My name is Tom Mays from the Department of Toxic Substances Control. I'm the Public Participation Specialist on this project. I will be tonight's facilitator and I'll also be the public contact on this project as we go through various regulatory activities over the next year.

Before we begin, I would like to acquaint you to the packets that were handed out in the back in the brown envelopes. Feel free to follow along with the presentation. We have the presentation materials on the right-hand side, and they're in sequential order. So it will be easy to follow. Each item on the agenda is stapled for your convenience.

So as we go through our presentation, we would appreciate it if you would hold any comments, unless absolutely necessary, until we finish the presentation, which is a little over 30 minutes. I'm being very generous, there. I think it's a little bit longer than that, actually. But make some notes on the side of your photocopies and refer back to those, because, as you can see by the weight of our packet, we have a lot to cover. This is not a simple document. So please feel free to

Page 4

take notes and refer to those during your questioning to us.

I would like to introduce the other members of the staff here tonight. Sitting in the front row, here -- and he'll be joining me in a few minutes -- is Dr. Jamshid Ghazanshahi. He is the permit writer on the project, and he will also be overseeing the preparation of the Environmental Impact Report.

Also we have, as I mentioned, myself on the project team.

We also have Gerald Chernoff. Dr. Chernoff is the staff toxicologist. He'll be primarily responsible in overseeing the preparation of the Health Risk Assessment, which is the key technical document that's at the center of the EIR.

Also with us tonight from the project management team is Phil Chandler in the front row.

And Tom Ryan, with the Chambers Group, is the Environmental Consultant. They are hired by Quemetco to put together the documentation, which is, of course, subject to public review and, of course, our technical review here tonight.

Before we jump into the fray here and go into the EIR, sometimes people --

UNIDENTIFIED SPEAKER: Excuse me. What was the

Page 5

names of the last two gentlemen you mentioned, the last two gentlemen?

MR. MAYS: Tom Ryan with the Chambers Group; that's an environmental engineering firm.

Where is it stationed again?

MR. RYAN: Irvine, California.

MR. MAYS: And let's see -- Phil Chandler. He's from the Department of Toxic Substances Control. He's a State Department employee.

Okay. Before we get into the EIR, I would like to go through who we are in the department in case some of you are unfamiliar with our regulatory activities.

Now, we are with the State of California. We're not with the County. We're not with any local entity. We're not with the federal government. We're with the state. We're under what is known as the California Environmental Protection Agency.

There are a number of different departments underneath that umbrella of the Agency, all involved in the protection in some way of public health and the environment. There is a Regional Water Quality Control Board which governs the groundwater and water issues in the state; there's the Air Resource Board which governs air and there is an Integrated Waste Management Board, and they control landfill issues at the state level.

We are primarily focused on hazardous waste management. We were created in the 1970's. We started out rather small as a program under the Department of Health Services. And we started out very small as a result of public concern about public health and the environment.

We just had Earth Day the other day. That all came about the same time in the early '70's. And we were created at that time to regulate hazardous waste management in the state. We closely mirror the United States EPA. Oftentimes people do get us confused with the U.S. EPA. We do have very similar functions.

In fact, the U.S. EPA allows states to form their own agencies regarding protection of the environment, so long as the regulations are as stringent or more stringent than the United States Environmental Protection Agency.

If you'll ask many businesses in California, they will agree with that, that we are definitely very stringent. So we are closely mirrored in line with the U.S. EPA.

Now, we issue or deny permits for facilities that conduct treatment, storage, recycling, incineration or disposal of hazardous waste. In the case of Quemetco, they are a large battery recycler. So they fit under that

category, specifically, because batteries are comprised of a number of hazardous components, such as lead.

We have other regulatory responsibilities in the department, as well, along with our permitting functions. In order to enforce our regulations, we have a surveillance and enforcement branch that frequently conducts inspections at facilities that either are at interim status or have permit status. And we do periodic inspections to ensure that they're complying with the law.

If they are not in compliance, we can write them up and we can seek penalties, financial penalties, or in some rare instances, criminal action if we feel that it is done with a criminal intent. So we do have an enforcement capability.

We also have a site mitigation function, and that is involved with the cleanup of contaminated sites. We frequently work with the U.S. EPA in tandem with Superfund sites, but primarily we have our own sites that we deal with that are a notch below Superfund sites, but nonetheless are of concern and need to be addressed.

So we also have pollution prevention and alternative technology functions, and that is -- those are branches of our headquarters in Sacramento that work with industries on ways of preventing pollution at the source, so we don't have such a problem in hazardous waste

management.

Also alternative technology; we have special grants and we work with other countries, and whatnot, in trying to develop different technologies and encourage that development so we could be better off in the future than we have been in the past on hazardous waste management.

Now, why are we here tonight? The purpose of tonight's meeting is a scoping session. And it's where members of the public -- members of government, as well -- provide input to us on environmental issues relating to the Quemetco facility. The comments are used to prepare an environmental impact report for EIR. You will probably hear us say "EIR" many times over the next year. That document is required by CEQA to identify environmental impacts and measures to reduce or eliminate impacts. And Jamshid will go through those in a little more detail in a few minutes.

Now, how do you get involved in this process? Oftentimes people get confused between public relations and public participation. Public participation is two-way. And we don't say that lightly, because there are a number of laws that allow the public an opportunity to provide input; not just to assimilate information, but to take what you have learned about the process and to

provide input at the time that we have draft decisions.

We began public involvement at the Quemetco facility in the early '90's. We started out with a comment period regarding a closure plan. Members of the Hacienda Heights group may remember us coming to a meeting at one point to talk about a closure plan we had put together with Quemetco on closing surface impoundment. That surface impoundment was basically a cement-lined pond. Basically it was used to catch water runoff, contaminated water runoff, in the site. And it has since been closed. And that activity took place -- public activity -- in the spring of 1993.

Since that time we have gone out to the community, recently, and just have begun meeting you in the community; interviewing some of you, learning from each of you who else we need to reach out to, to build upon our mailing list, to learn what we might need to put in the fax sheets to better inform you about what's going on so you can be better informed to make up your own minds about how you feel about the process.

At this point, now, we are at the scoping session and a comment period, which will go on for some while now, in which you will have an opportunity to provide us with written comments as well. If you would like to, you can write us or tonight comment verbally at the meeting.

This will all culminate in about a year from now, in next spring, with the preparation of a Draft Permit Decision and a Draft Environmental Impact Report. And that Draft Decision will be based on a lot of the Draft EIR. So it's a very important document.

In the summer next year, we hope to have a decision on the Permit Application. It should be noted that anyone participating in the comment period also has an opportunity for an appeal if that is required, if that is -- if that is of interest to you, if the decision is not to your liking, or you feel that something was not addressed properly.

We should talk about corrective action. The closure plan that I mentioned was part of the corrective action. All the facilities that undergo a regulatory process are required to undergo various assessments and investigations to ensure the facility corrects any improper waste-handling practices that may have occurred in the past. Oftentimes that's the case. The way a facility operated 15 years ago obviously isn't as good as the way they're operating today. So some corrective action might be required.

It also brings them up to speed with current regulations. And in the case of Quemetco, we're putting

together a draft soil and groundwater cleanup plan that will be under way in 1997.

And I should make it a point to mention that corrective action occurs regardless of the permit determination. So assuming -- let's say it's a permit denial, corrective action would continue because, of course, we don't want to leave any loose ends. We want to do what is necessary on behalf of the citizens of the state to clean up any past contamination.

If the permit is approved, the same holds true. It will continue. Corrective action will commence and conclude with the corrective measure implementation sometime next year, most likely in which a draft plan will be put forth to the public. The public will have an opportunity to look at that, comment on it, and then that plan will be put into effect.

Now, I would like to mention briefly about the department's decision and the California Environmental Quality Act. Some of it is a little repetitive, but it doesn't hurt to share it with you again. It is a part of the state's permitting process.

The California Environmental Quality Act, CEQA, was evolved in the '70's during the public outcry for more stringent regulations on protection of the environment. And CEQA requires all government agencies to

carefully consider environmental issues before decisions are made on a project.

And as we said, your involvement in the CEQA process -- we're collecting information currently -- and during the scoping session comments may be made in writing or during the scoping session tonight. If you know of anybody who you thought might be here and they want to write us a letter, feel free to encourage them to do so. A public review -- again, when the Draft EIR is complete -- sometimes people think this is their one-shot-only deal at reviewing this stuff.

We're just getting started tonight. Not for another year will we have a Draft EIR ready for public review. At that time you shall be very familiar with what's going to be in there, and hence, you'll be more readily prepared to provide us with comments.

Again, we will approve the EIR after public review and the document, again, is used as a guideline in the ultimate decision; approval, denial, approval of the permit with conditions. Sometimes there are mitigation measures on certain operating processes that can be mitigated in order to correct any potential impact on the environment.

With that, I would like to introduce Dr. Jamshid Ghazanshahi, who will be filling you in a

little bit more about the Quemetco project and our department's requirements of that facility.

MS. AVERY: Before you do -- under "public involvement," I'm surprised that you did not list the department health study three years ago.

MR. MAYS: I believe we have that in our presentation, other investigations, certainly.

MS. AVERY: It certainly was involvement by another agency.

MR. MAYS: That's another agency. You're right. And you know, Ms. Avery, we do have that in our presentation. That's maybe about another five minutes from now. Jamshid is going to identify that. That's more of a technical issue that he's going to address.

You're correct, though, it is part of public involvement.

MR. GHAZANSHAHI: Good evening. My name is Jamshid Ghazanshahi, and I'm the Permit Director for Quemetco. I review the operation plan and make sure that that operation plan is following our guidelines and regulations, and also I oversee --

THE REPORTER: Would you speak up, please.

MR. GHAZANSHAHI: As you can see on the map, Quemetco is located at 720 South 7th Avenue. It's on the north of the 60 Freeway. The facility is located on an industrial zone.

UNIDENTIFIED SPEAKER: I hate to keep coming up, but you show the City of Industry. And that spot where you show the City of Industry, that's Hacienda Heights on that map. And that map is not correct.

UNIDENTIFIED SPEAKER: It's not surrounded by -- from Clark south, that's all Hacienda Heights. And you have it listed as the City of Industry.

MR. MAYS: City of Industry is farther up here?

UNIDENTIFIED SPEAKER: City of Industry starts north of Clark down.

MR. MAYS: I think we're jinxed with maps.

UNIDENTIFIED SPEAKER: He has Hacienda Heights way over there.

UNIDENTIFIED SPEAKER: It should be reworked carefully.

UNIDENTIFIED SPEAKER: It's absolutely incorrect. And it's not surrounded --

UNIDENTIFIED SPEAKER: About 500 feet from Quemetco. So it's not heavy industry.

MR. MAYS: One thing I would like to clarify, I don't want to downplay the importance of this map. It is very important. But again, this is not a map to be used by Jamshid for any kind of technical plotting of the Environmental Impact Report.

However, you're right. We want to make it correct. But when he does the study, when he works on -- when he and Buzz work on preparation of the Health Risk Assessment, they're going to be using far more detailed topographic maps and air modeling scenarios.

MR. CHERNOFF: I guarantee it will be right the next time.

UNIDENTIFIED SPEAKER: That area north of the Pomona Freeway to Clark Avenue, east of 7th Avenue to the Wildwood Mobile Home Park and west or east to Turnbull Canyon and west to the mobile home park, that's Hacienda Heights.

MR. MAYS: Next time I'll just go ahead and I'll send you over to read it and do the red-pen routine.

UNIDENTIFIED SPEAKER: I did it before.

MR. MAYS: Is there anything we can hold off on?

UNIDENTIFIED SPEAKER: I live on Clark Avenue. On the centerline of Clark Avenue south is Hacienda Heights, and it's not east of Clark and 7th, it's west.

UNIDENTIFIED SPEAKER: I made a mistake.

UNIDENTIFIED SPEAKER: Centerline is Clark Avenue, south is Hacienda Heights, and I live right there.

MR. MAYS: Okay. We'll make sure we get this map together. I promise. You guys are going to be our map subcommittee.

MR. GHAZANSHAHI: We have the facility in the City of Industry. So mainly it was different than what you said. So City of Industry is according to the address that we have. Our department doesn't have anything to do with the zoning issue. The city has the sole authority on zoning issues. They are allowed by the city to operate in that location.

When our department started about 17, 18 years ago, we didn't have the time and the staff to review all of the processes of different facilities that they deal with in toxic waste. What we did, we gave them a temporary permit to operate until we have more time to review their operation plan and give them a permit.

But a temporary permit was issued, an Interim Status Document, ISD. Quemetco is right now operating under that temporary permit. In order to get the permit, we did issue a Park Fee Application for the operation plan in 1990. We reviewed the operation plan to make sure that it's according to our regulation.

Quemetco receives about 10 million batteries, car batteries, every year, and they process and they produce about 120,000 tons of lead that they send to battery manufacturers to make a new battery.

Usually Quemetco receives the batteries that are delivered to them by truck. When they receive the

batteries, they have a hammer to break down the batteries. And they get the acid and they take it to the treatment plant for naturalization and treatment and they recycle the plastic and they send other parts, like rubber, to the landfill.

Our decision to issue a permit depends on the contents of the application, the facility's ability to comply with corrective action -- I'm going to talk about corrective action in a few minutes -- results of the EIR that they're going to prepare during the next year, public input and also the compliance history that I'm going to talk about later on.

The Facility Application is a very extended document. They cover different subjects like waste analysis procedures, personnel training, traffic flow, management practices, health and safety programs and so on. Closure procedures, financial responsibility, all that is covered under the operation plan.

As Tom said, our department has a Department of Surveillance and Enforcement that regularly go -- announced and unannounced -- go to different facilities to inspect, to make sure that they are complying with our laws and regulations.

They did the same for Quemetco. And since 1987 until today, they have had ten inspections. During

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this inspection, Quemetco had some violations such as employee training, labeling, improper waste piles, lack of warning signs and improper management and labeling of damaged batteries. All these violations are set out and the total penalty that they paid so far was roughly about $100,000. And our department is going to continue to inspect them regularly.

As you know, Quemetco is a very old facility and they have been operating there -- and the previous owner -- for a long time. And there are some contaminations at the site because of their past history of operation.

As part of the permitting process, they have to clean up what, if any, contamination is at the site. And we gave them a conditional permit. And one of the conditions is to correct and to clean up all past contamination.

In order to do our corrective action, our process is to start with RFA, which is Regular Facility Assessment. It is twofold. It is a visual-site inspection to see that contamination is fixed; then we do the review. We do it with different agencies, see the report of contamination, release it at the site.

Then we go to -- we do an RFI if RFA shows us there is any contamination. We do a Regular Facility

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Inspection and do an RFI to pinpoint in more detail, study the extent and the kind of contamination.

After RFI we go to CMS, which is a study to develop and evaluate a corrective measure and different alternatives that are available. And we choose the best one for the site and then we go to CMI to implement that recommendation and to clean up the site; that's Corrective Measure Implementation.

UNIDENTIFIED SPEAKER: Could we get a clarification of RFA and CMI?

MR. GHAZANSHAHI: RFA is the first step, which calls for a two-step. It is a visual-site inspection and review. RFA stands for Regular Facility Assessment. Then we go to RFI to study in more detail.

MR. MAYS: Jamshid, they may not be following what RCRA is. Does everyone understand what RCRA is? RCRA is just the federal law that governs these assessments and investigations; Resource Conservation and Recovery Act. It's a mouthful, so we call it RCRA, R-C-R-A. And then that's where you get the RFI, the RFA. The "R" stands for RCRA, which is a federal law.

To make it simple, you could just look at this as the investigation. This is the study and this is the implementation of the study. It keeps it simple. It's just a lot of acronyms that aren't really that

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important.

The important thing is is there is an assessment, an investigation, and then a study that's put together on how to clean up the site for contamination and then implementation of the study.

UNIDENTIFIED SPEAKER: While this is going on, are there interim measures that they must follow?

MR. GHAZANSHAHI: Right now I'm talking about Quemetco.

MR. MAYS: Sometimes there are. Like during the process, they may find they want to take care of it right away.

MR. GHAZANSHAHI: U.S. EPA conducted in 1987 the RFA, Regular Facility Assessment, for Quemetco. And they identified 40 years of contamination at the site. Out of these 40, one of them was surface impoundment. It was more urgent to take care of, so that's why in 1993 they completed it. They closed down the surface impoundment and they took out all the soil and took it to the landfill.

So they're going to use some tanks in order to collect all the rain water in the tank, and then they're going to treat it. They're not using any more surface impoundment.

UNIDENTIFIED SPEAKER: Did they take it to a

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hazardous waste landfill?

MR. GHAZANSHAHI: Yeah. They took it to a hazardous waste landfill. So the contamination at this facility, they're going to clean up later on.

Right now our department, Department of Toxic Control, and Quemetco are mapping out the investigation of the 39 areas which are contaminated. They want to know the extent and the kind of contamination that is present there.

And after the RFI is completed, they will go to a Corrective Measure Study to find a way to get the most feasible and best measures to clean up the site. I want to mention that this is subject to public input, this corrective action, as well.

Other investigations that were mentioned, that has been undertaken by the County, is blood lead level studies of the children living around the chemical facility. They used 125 children from Hacienda Heights, and they used the children that lived farther away from the facility, children from West Covina, as a control group. And they compared the blood lead level of these children that are living close to Quemetco facility.

Those that are living in West Covina, their conclusion was that their blood level did not elevate due to Quemetco's presence.

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As you know, Proposition 65 is required by the facility that they -- any contamination that is cancerous, if they are around the public, they need to know about any dangerous substances.

Quemetco is one of those facilities where there is lead emission, so they have to let the public know about it. And they send out fliers to the County and they tell about the procedures, how to take care of the problem that they have, if there is any.

In order to make sure that the operation of Quemetco is not going to harm the public and the environment in any adverse way, we do a CEQA process, which is California Environmental Quality Act, which is -- EIR is part of it.

Our department, Department of Toxic Control is the lead agency. We oversee this study to be taking place correctly. The purpose of tonight's meeting is just to get your input, as Tom says, for this study. And we would like to get your comments and what you want to be included in this study.

Very briefly, an EIR study -- we look at the impact of a facility's operation, the way they store things, the way they operate and their impact from air pollutants or toxics and impacts due to material transport and handling.

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When the EIR is completed, our purpose and decision is based on the result of the EIR. If the impact is great and there is a big impact to the public and the environment, we can deny the permit. But if there are impacts which are mitigatable, and we can take care of it and we can correct the problem, we usually instruct the facility to mitigate the problem by modifying their operation. And if there is -- we find there is no impact at all, then we give them a permit.

The elements that we look at EIR is air, water, noise, land, risk of upset, transportation, public services, human health, aesthetics, cumulative impacts and alternatives.

I'm going to be very brief because we want to get your input.

So on earth we look at the seismicity effect. If there is an earthquake, what's going to happen to this facility? If there are tanks, are they going to stand or are they going to have any problems? We look at the geological at the site; existing topography of the site.

On air we want to make sure that the quality is in compliance with the air quality standards of Southern California. Air is an area of the risk assessment that we look at very closely.

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For water we look at the groundwater, surface water, and we want to make sure that the noise of the facility is compared with the noise levels from the facility to the levels established by Los Angeles County. We do not want the noise that they produce to exceed that level.

On land use we look at the current land use, and we don't want to see any effect that this has on the surrounding land.

On the risk of upset we look at the potential accidents that might happen at the facility.

For transportation we look at the existing traffic and we want to see if the truck traffic coming and going out of the facility has any effect on the traffic of the area. They might have to choose a different day or different time of the day for the transportation.

On public services, we want to see if Quemetco has any impact on different public services like hospitals, fire, police. We do not want to -- if there are any accidents or there is a need and the public has no access to this because of Quemetco. So that's why we have a contingency plan. They have to talk to hospitals, police, and they need to know that the facility is there and they know they're needed.

On human health we look at the risk of upset

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and the health risk; what kind of risk it is for the people that are working at the facility or if they are living close by the facility that they're taking, if there is any.

On the study for good appearance, it's not an eyesore for the public and the people living around it. Nonhazardous nuisance odor, some of the odor they have might be very bad, might be very annoying, but it might not be toxic. But it might be a very bad odor. So we look at that part too.

Cumulative impact, we look at the total impact of all those that I mentioned so far, just like air, water, land, all that. We look at the effects on those.

On the alternative, if we find any impact, we look at if there is a way to have different alternatives for this facility's operation. So we can command any changes that they need to reduce their impact.

This is our address. If you have any comments or if you want to add anything for this study, you can send it to us.

At this time I want to ask our toxicologist, Dr. Gerald Chernoff, to tell us about risk assessment. That is the most important part of the EIR.

MR. MAYS: First I'm just going to turn it over to

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Carlos.

Could you make one more announcement just to ensure that we don't need interpretation tonight.

Thank you.

MR. CHERNOFF: Although Jamshid and Tom have been calling me Gerald, if you phone me up and ask for Gerald, I won't know who you're talking about because my name is really Buzz.

And this is just a little organization chart to show where I fit in in the hierarchy that Tom mentioned earlier. I work with the EPA and within the Department of Toxic and Substances Control. There is a whole bunch of different outfits that Tom showed you. One of the outfits is Scientific Affairs. It's a bunch of toxicologists who spend their lives reviewing risk assessment and guiding the development of risk assessment in order to hopefully protect the public health for you and other citizens of California regarding permits on sites.

My phone number is at the bottom there. If you ever want to chat about risk assessment, I'm the guy to call. I like talking about it a lot. But if you have a specific question about Quemetco, what you're going to have to do is go through either Tom or Jamshid first. And the reason why is I'm really contracted with them. They hire me to review risk assessment. So that's my

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involvement with the project. If you have a specific question about the risk assessment to a site, you have to ask them. They can decide what to do then.

UNIDENTIFIED SPEAKER: You're located in Sacramento?

MR. CHERNOFF: I live in Sacramento, yes.

I just want -- there are questions you might want to ask. I didn't tell you what risk assessment is. The reason for doing this assessment is to take the information that you have about the facility and to determine what risk, if any, pose a threat to the population, the population of workers within the facility; it's a population of workers who are outside the facility, who may work next door; it's a population of residents, as you are, who live in the area of that residential population; there are some special populations.

There might be kids who are in day care centers; there might be convalescent hospitals; there might be a hospital there; there might be other population, for which we use the term "sensitive population," which we want to make sure we have information what risk the facility is doing to them, as well.

So we can evaluate who may or may not be impacted by the facility. We want to ensure public health

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from the businesses of California. To do a risk assessment, review the risk assessment, you should be asking all these questions: Have they identified all the sensitive populations? Is there a home for little kids somewhere, or a school that has not been addressed?

So those are certainly things that we can do. And what I think you should do is really ask the questions and take into consideration all the variables when conducting a risk assessment.

Now, why do we do a risk assessment? What is a risk assessment? I'm going to -- you have a sheet that is made out, and it says something about risk assessment. This is a much easier one to read.

A risk assessment is a formalized method for evaluating and documenting public health threats -- I have got to do this -- you do risk assessments every day of your life. When you have to cross the street, you look both ways. In some sort of way, that's a risk assessment. You see cars coming and evaluate, "Can I run fast enough or not?" If you're young, you're going to take the chance; if you're old, you'll probably wait a while.

Risk assessment is not a mystery. It's something that you really do on a daily basis. It's just us who make it a very formal thing. And if you take away all the formal jargon from it, it's easy to understand.

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The first step of the risk assessment is to identify the hazard. Is there a hazard? Getting ready to cross the street, are there cars coming? But a facility like Quemetco, the hazardous information involves identifying all of those chemicals that are used in that facility.

The next step you have, you then ask, "Who's going to be exposed to those chemicals?" And as I mentioned earlier, you consider the workers, the workers near the facility, residents and special population. Then you ask, "How much of the chemical would these people be exposed to, and in what way?" If you're a worker, you might be breathing the chemicals; if you're a resident, your sole source may be from the air emissions coming out and getting disbursed into the air. So we take into consideration who's exposed, how they're exposed and how much they're exposed.

UNIDENTIFIED SPEAKER: What about dust settlement?

MR. CHERNOFF: We do that as well. It comes through the air and then it settles down. And then we take that and consider that. We consider the pathway as the emission pathway. You're not walking over the site and going like that.

UNIDENTIFIED SPEAKER: No. But we're picking it

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up.

MR. CHERNOFF: Yes.

The third step of the risk assessment is a toxicity assessment. And all that is is a way of breaking down chemicals, how toxic they are and how bad they can be for your health. Some chemicals are worse than others. It's going to take a whole lot of them before you get real sick. If you eat a lot of codeine, you would probably get a stomach upset in a much faster rate than you would with aspirin.

So what the toxicity assessment does is it shoots a number. It's called the "cancer potency factor" for those chemicals that cause cancer and it calls for a reference dose for a chemical that doesn't cause cancer. If you want to know more about it, give me a phone call.

What we do is we give a numerical value on how potent a chemical is. What we do then is we know the chemical. We know who's being exposed, how they're being exposed to it. And we can now take information on the toxicity. We multiply that toxicity number with the exposure values, and we come up with this magic number called the "risk."

This is called the "probability." It's the probability of someone contracting one excess cancer. It's a probability of getting one excess cancer in a

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million people.

Just to conclude with some questions that folks like yourselves would ask me in the past -- if they didn't, I would give it to them anyway.

Unfortunately, you don't have a sheet for this, but you probably really don't need it.

First question: Who does the risk assessment? Well, the risk assessment is going to be done by the contractor who was the fellow that was sitting here a few minutes ago. And I think he's subcontracting that out; is that right?

So it's not the Agency. I'm not going to be doing the risk assessment, per se, I'll be guiding that person. And I'll be reviewing the risk assessment to make sure that it's done with the department's satisfaction.

UNIDENTIFIED SPEAKER: The contractor, then, is employed by Quemetco; is that correct?

MR. CHERNOFF: I'm not sure.

MR. GHAZANSHAHI: The contractor was paid by Quemetco, the Chambers Group. But we oversee the work: what they're doing and how they're doing and if they are following our guidelines.

UNIDENTIFIED SPEAKER: I'm saying, were they chosen by Quemetco?

MR. GHAZANSHAHI: Yes.

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UNIDENTIFIED SPEAKER: Because that raises some questions.

MR. CHERNOFF: It does. But I'm not chosen by Quemetco, and I'm the guy that gives the approval on it.

MR. MAYS: You have to remember the engineers working on this and the toxicologists working on behalf of Quemetco are licensed and are subject to truthful practices. Of course, if there is any fraudulent practice, they would lose their license.

So there is a definite incentive for the work to be done correctly. And Buzz is a person who can look over their shoulder to ensure that that work is done correctly.

MR. CHERNOFF: That's really our rule.

MR. GHAZANSHAHI: The facility can choose to do an EIR by themselves. They don't have to hire some facility. They can choose to do an EIR by their own people. They can do it. But we make sure they are qualified, they have the experience to do it, they have the staff to do it. That's our job, to make sure -- if the facility says, "I have my own," legally we cannot say, "No, they cannot do it."

We oversee it to make sure they're doing it right.

MR. CHANDLER: We have a unit in Sacramento that

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deals just with CEQA issues. So if one of the EIR's, one of Jamshid's facilities has just prepared it, it has been sent to this unit chapter by chapter, in draft form. Comments come back to the consultant who's doing the EIR work.

So in other words, the Department is involved in this thing from the word go. And the toxicological problems, the risk assessment problems, Buzz would have another group of people there. Somebody would be assigned or have somebody else assigned to a particular project. The CEQA unit in Sacramento would oversee it; the geologists would take a look at it, the geological department, the toxicology unit. We have a bunch of specialists that are looking at it.

UNIDENTIFIED SPEAKER: Are you looking at it on paper only?

MR. CHERNOFF: I am reviewing the documents, the risk assessment.

MR. CHANDLER: There is more to this job than paper. The EIR is paper. When it comes to doing the RFI, there's fieldwork. If somebody is drilling a hole in the ground, we have the people out there on the grounds.

But the EIR is primarily a paper study. And for that approach, we run them through the various responsibilities in dealing with these.

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MR. MAYS: Those questions are good, but make sure you write down your questions on your documents. And then, in just like five minutes, we'll open it up to questions. I would rather keep it a little orderly. We have a court reporter taking down the notes so we can go back and make sense of them later. So it really behooves you to follow the order. We appreciate your comments. Just give us another few minutes to save those comments.

UNIDENTIFIED SPEAKER: I have a question for you. Are you a full-time employee or a consultant?

MR. CHERNOFF: I'm a full-time state employee. Don't I look like it?

The second question -- we obviously didn't answer all of the first questions, but do come back with us.

The second question: What does a risk assessment tell you? And as it says there, the risk assessment gives you numerical values giving the total risk and the total hazard that is at that site. So when you come up with this, it's a number. And that number then goes to Jamshid who uses that in his deliberations on whether or not to issue the permit.

Equally, I think you need to ask, what does a risk assessment not tell you? And what a risk

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assessment doesn't tell you is the cumulative risk that is occurring to this community from a variety of sources. The way this risk assessment is done now and the way the regulations are is site by site by site.

So we have information on Quemetco, here. But if there is another facility here that is also emitting, what the risk assessment is able to review, you will be able to review.

Fourth question you might want to ask when you're doing a risk assessment: What does it mean? How certain can you be of those results? And as it reads, the certainty of the results are dependent on the quality of information used in conducting the risk assessment.

Since the quality can vary widely, the certainty of results can vary widely. Consequently, it's standard practice to discuss the uncertainty of the results and the misrepresentation of the risk assessment. And ideally any uncertainty will err on the conservative side, thereby assuring the protection of public health.

And it's my policy, if there are questions or there's a debate on whether to use a more conservative or a less conservative assumption in view of this assessment, the department and I always opt for the more conservative.

So I think when the risk assessment does

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come out in a year from now and those people who decide that they're going to read one of the risk sections, you should read the conclusion and turn to the uncertainty section and see what it all means.

Generally, the better the data, the better the risk assessment. And since I haven't seen the data for Quemetco yet, I cannot tell you what the quality is. Although, I have heard -- it has been referred to me that they actually have data that has been collected. So a lot of information that is normally received won't have to be done.

And the last question that you might ask: You got all of this information; you got the risk assessment. How is it going to be used? And how is it going to be utilized in Jamshid's deliberations on whether or not to issue a permit or say nay on a permit? The risk assessment, the results, play a major role.

Thank you very much.

MR. MAYS: I would like to put these issues back up on the overhead projector so you can see the various components that we're going to be looking at.

Before we open it up for comments from you, I would like to take care of a little unfinished business to make sure we close --

MR. GHAZANSHAHI: I forget something. Did you

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mention yesterday's meeting? You forget to mention it.

MR. MAYS: We did have an interagency meeting yesterday. It's very complimentary to the public scoping session tonight.

Yesterday we had an agency scoping session. We had members of the Regional Water Quality Control Board and the County Sanitation Department with us at our department office in Glendale. They asked questions regarding brown-water quality issues, drinking water wells, also worker safety procedures, accident scenarios, as it relates to secondary containment of sewage systems, and so forth.

Those comments are going to be incorporated. We just wanted to share that with you so you're aware that other agencies are interested in these processes that we're going through. And Jamshid will be incorporating those along with public comment as well.

UNIDENTIFIED SPEAKER: What about a QM?

MR. GHAZANSHAHI: We sent the package. We sent something close to that to different agencies that have an interest in the environment like the Water Board, HMD, County, City. They don't have to come to our department, but as a community we invite them. And they came yesterday. In order to have a chance to write to us -- like Transportation Police -- they have the chance to write to us what they want to have in the EIR.

But two agencies yesterday showed up.

UNIDENTIFIED SPEAKER: Are the minutes available to the public, then?

MR. MAYS: We have the notes. We don't have the formal minutes.

MR. GHAZANSHAHI: Make a request, send us in writing.

UNIDENTIFIED SPEAKER: You did not have the local upper district -- Municipal Water District come?

MR. GHAZANSHAHI: All the agencies, we give them a chance. They can write us, or if they have any concerns, they can come and sit down. But two of them came with questions.

UNIDENTIFIED SPEAKER: I would very much like to have a copy of the tentative minutes of something so that we know what questions they asked. We're very concerned about the Regional Water Quality Board.

MR. MAYS: That's a good point. And I think it is worth mentioning here that while we offer the agencies an opportunity to participate, if you and the public feel that -- such as this matter -- if you feel that it needs to be addressed with us, you can bring it to our attention and we can follow up with perhaps a phone call or check the documents to complement the EIR.

MR. CHANDLER: Who is the representative in case they want to get in touch with the person from the Water Board?

MR. MAYS: I believe it's Julio Lara, L-a-r-a. And that's from the Regional Water Quality --

UNIDENTIFIED SPEAKER: Anybody that's really -- they send you someone --

MR. CHANDLER: They send a staff person.

MR. MAYS: And David Whipple (phonetic) of the County Sanitation Department.

And again, Jamshid has their cards, and we can link up together in the near future, if necessary.

Before we begin with accepting comments here, I want to ensure that everyone has signed up. It's very important to document your involvement here tonight, for a mailing list and for recordkeeping purposes. So I'm going to hand this around.

May I see the hands of anyone who has not signed in? Speaker-request cards; has anyone yet to turn in a speaker-request card? If you haven't done so yet, it's okay. But we would like to have these again for recordkeeping purposes.

I know this is going to sound a little formal, but I want to do this again for our recordkeeping purposes, for our court reporter. When I call your name,

if you would come up to the podium so you can use the microphone so the court reporter can pick up your comments. It's very important because we need to be able to look back on the transcript to make sure we get your questions correctly.

With that I would like to call our first speaker, Elizabeth Oliver.

MS. OLIVER: I am not a speaker. Really I don't have that much to say except I'm not an intelligent person. I'm just concerned about a few different things, and I want to keep it short.

The testing that has been going on, we wanted to find out more about that. Who was tested? Why some of the ones -- I've been a resident in that neighborhood for 37 years. My kids grew up there. We have seen children that have -- a lot of children that have had to go to special education classes that have been growing up there. We wonder if there is a connection there or anything like that.

We wonder about the ones that are being born now. My granddaughter was born there recently. The doctor wouldn't even take a lead test. So where are we getting these lead tests? We're interested in those things. We want to make sure about the child care center that's down there on Clark. There's one right down there.

We're concerned about that.

The smell -- you were saying about the smell. In the evening time, sometimes we smell these funny smells. My daughter recently, a few years ago, moved in. And she kept saying there was a funny smell coming from the evening time. We don't know if it was coming from there or not, but it's a funny taste in our mouths.

These are questions that we would like to find out. Is it connected? That's about all I can say right now. I'm not a speaker, like I said.

MR. MAYS: Now, keep in mind, afterwards -- I realize it's a little imposing to come up to the podium. So I really respect you in the audience who are mainly first-time speakers. I really appreciate your efforts. If you feel more comfortable later, and we go through all the speakers and you want to follow up and ask questions, the only thing I ask of you when you do raise your hand, don't forget to announce who you are, again, for the court reporter, so later on we know where these comments are coming from.

UNIDENTIFIED SPEAKER: On the point of procedure, are you talking about having questions or people speaking? Are there two areas or one area or -- because I thought --

MR. MAYS: You mean procedural questions?

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UNIDENTIFIED SPEAKER: I thought you were going to be able to ask questions.

MR. MAYS: We could do that. In fact, Jamshid and Buzz and Phil, I think we could pick off procedural questions, and then try to take the other meaty subject matter up; you should check into this; you should look into that. Of course those fall under the scoping of the EIR.

And Ms. Oliver, I want to go through -- I would like to kind of sum up the areas of your concern, here, for the record. And I heard you mention something about odors, about air. And I believe that may fall under the aesthetics as well. That could be an odor that may not be hazardous, but may be nonetheless a new area that could be looked into.

MS. OLIVER: I forgot to mention one other thing. There's a screeching noise that is all night long. But like I said, I wonder if it's connected with that.

MR. MAYS: Again, it's good to point out sometimes you smell something or you hear something. We're not necessarily saying that it is coming from Quemetco, but it can be investigated.

Okay. Aesthetics. That would be noise. There's also lead-testing issues. We could talk about that a little more.

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MR. CHANDLER: Procedurally, the types of -- what we want to get at, the bulk of the questions are the things we want to have addressed in the EIR. In other words, you want to put that in the EIR.

Procedural things that Tom is talking about are things like doing an RFA and doing an RFI. What do you do if an RFI is not necessarily site specific? So I think that's how you want to --

MR. MAYS: Well, there was a question about lead testing too.

MS. OLIVER: Yes.

UNIDENTIFIED SPEAKER: I have five children.

MR. MAYS: Now, we can basically coordinate as far as referring some of that information to the County.

MR. CHANDLER: Well, the County does that. The question might ultimately have to be put with respect to the EIR if there needs to be some sort of a component.

We're trying to get you to raise those issues for us, then to turn around and look at this EIR process and say this is being laid out here and the scope for this process is going to be sufficient.

MR. MAYS: Debra Bradshaw.

MS. BRADSHAW: I'm a resident. I was raised from here since I was three years old. My concern is my age group of kids that are handicapped. There isn't a person

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that I don't know that doesn't have some kind of mental illness. We have the highest rate -- if you go back to our kid's -- our age -- my age -- that doesn't have some kind of mental-drug issue, mental-handicap issue, they can't -- I mean, they're -- it seems weird. How come this area here is so -- every family has some kind of problem?

You go back and we can trace back to our families that grew up here and the kids that were raised here, and there is not a family that doesn't have some kind of problem, mental anguish, suicidal. I know a tract of homes that had so many suicidals when I was a kid.

The noise. I went away for about 14 years. I lived in Huntington Beach and came back here. The noise is so deafening, it took me almost a year before I could even sleep all night from the noise. And it's not just a noise; it's a hum. I go for walks. I walk out in that direction, Quemetco, the noise level is -- when you get there the walls are penetrating with this noise.

My children. How come since I've been here, I have all kinds of health problems in the last two years. I have things like Bell's Palsy. I don't know how you get that. Not only breathing problems, I taste it in the air. I come here and I can taste it in the air. I just taste these horrible sulfur, whatever, tastes.

My children did not have health problems.

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They're fourteen and fifteen years old. They tested at age five. Why didn't they test the older kids? My one child has breathing problems. He has asthma. He has a lump on his neck that we are having checked out. My fifteen-year-old has all kinds of breathing problems.

They have been to the doctor's about once a month in the last year. And you look at their records before that, they went to the doctor only for their baby shots and normal childhood things. They didn't go down at Huntington Beach. And there is all these different things.

It's just -- my question is, how come they test -- who tested these one- to five-year-olds? How come we cannot see the results of these tests? How come they're not public?

MR. MAYS: We do have the blood lead study in the Hacienda Heights Library. I don't know if that's a comprehensive summary of the study, but you may want --

MS. BRADSHAW: It didn't say what year or --

MR. MAYS: Did you check the library on the study? It's pretty comprehensive what we have in there. It's not very big, but it does have some factual information on the findings; not just what we had tonight, but --

UNIDENTIFIED SPEAKER: This is an article summarizing the study. It's not a complete document, but

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it has the study on it.

MR. MAYS: Thanks.

MR. CHERNOFF: What is your name, again?

MS. BRADSHAW: Debra Bradshaw.

MR. CHERNOFF: The reason they won't identify the individual kids in those studies is that's a confidential study. So when people sign in on those studies, one of the guarantees is that they wouldn't give names.

UNIDENTIFIED SPEAKER: Do they just do it with anyone? Are they going to do it with just young residents? They're not breathing the air like the 14- and 15-year-olds.

MR. CHERNOFF: The first question, usually there is a six-month resident requirement in lead studies because it takes about six months for the kids' lead levels to go up. Whether that was adhered to in this particular study or not, you can't tell.

The second thing is why one to five? And the reason they do one to five is in terms of what lead does to the developing of the central nervous system, the critical time is one to five. So lead is going to have a real bad impact on the developing of the central nervous system. That's the period that would cause the greatest damage.

Now, that's not to say that it dosen't

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affect older folks, teenagers, as well as old fogies like me. It's a real critical issue. The critical population of the central nervous system is one to five.

UNIDENTIFIED SPEAKER: What about pregnancy --

MR. CHERNOFF: That's a whole other issue.

UNIDENTIFIED SPEAKER: -- because they say it damages babies in the pregnancy stage.

MS. BRADSHAW: What about all these other chemicals in the air? They can't be good for you. Arsenic is not.

MR. CHERNOFF: As I understand it with Quemetco, what we're looking at is the lead problem. My understanding is that's the major problem. And also, in terms of developing the central nervous system, lead and mercury, like the fish, are the bad guys. Arsenic is a carcinogen. It does other things.

But in terms of really harming your kids, lead is the bad one.

MR. MAYS: Keep in mind, if you have follow-up questions that aren't incorporated in the elements here and are just procedural questions you have, at any time you can give us a call even after tonight. So procedural questions we can take at any point. So just keep that in mind.

Jim Davis.

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MR. DAVIS: I've lived in the area for 26 years. I have lived in Hacienda Heights since 1978. I lived in the Northwood area, which is near the sanitation district. I lived in the surrounding area before that.

My first knowledge of Quemetco is we smelled the odors in the air at night. And again, this is between 1970 and 1978. The prevailing wind here is not back towards the west. Usually it's another direction. So there was only one or two nights a week or maybe once every couple of weeks that we could smell the odors in the air. We lived approximately -- I'd say as the crow flies from Quemetco -- probably a mile, a mile and a quarter. So that was my first exposure.

And further noticing Quemetco at that time -- and I think they have made a lot of changes recently. They have improved their operations. It seemed like during the nighttime, they crank up the pollutants that were going into the air or whatever was going into the air. So that was of some concern.

My main concern now living in Hacienda Heights -- and I live in that same distance, maybe a mile and a quarter from Quemetco -- is the air pollution that's going into the air. Does that have contaminants in that? We should be concerned about -- and also concerned about the soil tests. And they have talked about a little bit

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about the reservoir and clean up of the reservoir.

I would be concerned if we have 40 contaminated areas and we only have one reservoir cleaned up so far. That leaves 39 areas. Are there due dates or deadlines that need to be cleared up? Is it something that is expected before a permit is considered or a permit is given in those 39 areas? If so that would certainly be one of the areas of concern that I have.

Other concerns are, are Quemetco leaking anything into the underground water? They're located adjacent to the San Jose Creek. Has there been anything going into the creek? Is there anything going into the creek now? I think there's several questions in that area that really need to be answered.

7th Avenue is one of the heavily traveled boulevards within not only Hacienda Heights but the City of Industry. And any transportation issues I think should be looked at very closely because of that.

Those are my basic concerns. My thoughts are that probably Quemetco has made a lot of progress in taking care of some of the problems that they had before. But they certainly needed to do that. Anytime you have a facility like this that's located within a few hundred feet of residents, in a residential area, you have real concerns.

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Those are -- I might mention, also, that I'm the president of the Hacienda Heights Improvement Association, and I know the homeowners in this area are very concerned. They're not here tonight, but we appreciate the opportunity of being involved publicly as far as the hearing was concerned, and we're looking forward to the results of this study.

MR. CHERNOFF: Mr. Davis, before you sit down, you said that you were concerned about transportation issues on 7th Street or 7th Avenue.

Could you be more specific?

MR. DAVIS: I don't know how much transportation there is as far as Quemetco is concerned, how many trucks go in and out. Any additions to what we already have are too many. In the morning, if you have been around 7th Avenue at all, it's probably the biggest problem that we have in Hacienda Heights going onto the freeway. So both, going south on 7th trying to get on the freeway, going north -- sometimes we have traffic going clear back beyond the Arco Station. And that's probably half to three-quarters of a mile. And the same thing with the north.

So the intersection is not a very good feeder road onto the freeway. There's a lot of transportation there. But if you go down 7th Avenue at

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noontime, around noon, there's just a lot of transportation; a lot of trucks that come into the City of Industry. So there's a lot of traffic.

It's difficult sometimes for people making left-hand turns at the Arco Station. Down there at Clark Avenue, that's a busy, busy avenue. I'm surprised that we don't have more accidents at Clark than we do.

MR. MAYS: Phil.

MR. CHANDLER: With respect to the ground and the surface water issues, those will be addressed in the EIR, definitely.

With respect to the 39 different areas of contamination on the site, part of the Quemetco permit will address corrective action at the site. We will incorporate requirements in the permit for the facility investigation, for any interim measures that need to be taken. Then for the corrective measures --

MR. DAVIS: Do they have deadlines, or are they open-ended?

MR. CHANDLER: They won't be open-ended. In the permit, for instance, generally speaking, we'll require within anywhere from 30 to 60 days of the issuance or the effective date of the permit that they submit to us what is known as a Current Conditions Status Report.

In other words, what's today at the site?

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Where do we stand? We have done some interim measures over here. You have done something over here. We know you need to do something more over there.

And based on that, the company will then be required to produce the Facility Investigation work plan. And that work plan will establish schedules to perform things. That RFI work plan would be required anywhere from 60 to 90 days after the effective date of the permit.

In other words, the permit is going to be used to trigger the corrective action at the site. In other words, once they have the permit in their hands, then they're bound, essentially, to begin performing corrective measures.

Typically, we put a schedule of compliance -- in fact the entire section of the permit is called Compliance Schedule For Corrective Action. All these terms we have had up on the screen, RFA, RFI, CMS, all these different terms plus attachments at the back, which essentially spell out how they will have to go about doing this work.

The EPA has a series of a 30- to 40-page guidance that essentially will tell you how you should go about doing an RFI. And we pin those as part of the permit. We attach them as part of the permit. That becomes an enforceable document. That's the goal, to

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encompass the corrective action.

MR. DAVIS: Let me ask you a question about the fines. $100,000 were the fines. Were they all at one time or was it cumulative contaminants or were they separate, or if they were, over what period of time? Are those typically separate issues?

MR. CHANDLER: Those are typically separate issues. I'm not sure about how many different times our inspector hit on specific issues at the site for which they were fined. We, on a regular basis -- I think with the staffing that we have now, at least once every two years -- we have an inspector go out to Quemetco every year. We have an inspector go out and run through the entire facility and look at their records.

They then develop a list of things that aren't copacetic with what the operating permit -- in this case an ISD document -- that says what they're supposed to be doing. Then they produce a list of these violations. Then their legal people and our legal people essentially sit down and negotiate over these things.

And eventually they settle whatever the particular settlement is on.

UNIDENTIFIED SPEAKER: You work on the idea of, like, OSHA? Similar to that?

MR. CHANDLER: The way DTSC is set up, we have

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inside of our permitting branch a group of folks who essentially design these permits, work with the companies, try to develop them and get all the specifications and everything into the permit through these public meetings; that's Jamshid and myself.

I'm actually a geologist, and Jamshid works for me.

Then on the other side of our permitting house, we have the surveillance and enforcement people who take this document, whether it's an ISD, a permit or whatever, they use this document with which to measure the company site. They look at the records that the company is supposed to be keeping, and they're the ones that essentially enforce the permit because it's an enforceable document.

MR. MAYS: Let me ask something here; this isn't a legal, stuffy public hearing.

Do you feel more comfortable just raising your hand at will and asking questions where they might fit in? Would that be more appropriate for your needs tonight? It dosen't matter to me as long as we get your input.

If we do change the ground rules, all I ask is that you do mention your name when you raise your hands.

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Does that sound like a better plan?

UNIDENTIFIED SPEAKER: Do we have too many speakers for this time?

MR. MAYS: We have the time until we are finished.

MR. ALMEIDA: I want to speak up.

MR. MAYS: Okay, Rudy. Last name?

MR. ALMEIDA: Almeida. My name is Rudy Almeida. I have lived in Hacienda Heights for 36 years. I live in proximity about six blocks from Quemetco. I travel the area of 7th and Clark about six times a day. The EIR should be evaluated and followed often and scrutinized very carefully for compliance including the traffic study.

The traffic study should be emphasized because in the area where I live with 104 homes, plus 504 mobile home spaces, we have an average of about 2,000 cars coming out of that intersection. The traffic is real bad. You can't make a left turn or a right turn. There has been about three accidents in the last three years.

The process required by the state for the public notification that Quemetco exceeds lead levels has not been distributed in the last three years. If it carries a level -- lead level -- it's not been given to all the rest of us in the area.

The area of contamination on the area is all the way to Los Robles and part of Clark Avenue, Salt Lake

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Avenue, Proctor and some of the City of Industry. So that's not been addressed by the warning to the residents.

Quemetco has been operating -- it has been a lead company since 1959 and Quemetco since 1970. Yet, it took all that time in 1987 where they gave them a condition. Why is it taking all this time for a condition to be processed? And now the application is a little behind schedule.

How long does it take to be in the process -- since 1970 to the present time? That's a lot of time; 26 years. And right now they're starting to get this thing processed for the EIR. The EIR should be scrutinized because Quemetco has been operating on a temporary permit all that time with contamination violations.

My concern is everything on that element of the EIR should be scrutinized including public health. And maybe this should include also adult people, not only children. The water is important, the noise, everything on that thing should be scrutinized.

Again, for the first time, I cannot believe that they have been operating on a temporary permit all this time, and now we're getting down to the nitty-gritty.

MR. CHANDLER: The law that Quemetco is getting its permit under and the law that has been operating under

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an ISD, I believe it came into being about 1980; is that correct, Jamshid? The resource conservation I can recall being about 1980. It's been about 16 years.

Our department is relatively young as well. These types of things weren't handled essentially by the state. They were handled locally. And a lot of different industries operate presently without any federal oversight for quite a while.

The ISD document which Quemetco is operating under, as we speak, is very much equivalent in terms of requirements as if they had the regular permit. It's not the same thing, I'll grant you, but during this period of time, Quemetco has engaged in the closure. And this is the formal closure of the impoundment on the site. I forget how many thousand cubic yards of material they removed from that.

They have engaged in the corrective action or interim measure cleanup of their material storage area. Again, many, many thousands of cubic yards of material has been removed. They're gauging this as if they were under this regular permit. They're also doing groundwork monitoring; they are doing groundwork investigations for EPA. They have done all this as if they were under this permit.

So it's not as if they were not being

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regulated over this period of time. We're talking now with -- the reason that we haven't been able to process their usual application, again, is a manpower issue in the State of California. We can't account for it, but that's the way it was.

There was an awful lot of firms, like Quemetco, that came in the door and said, "We want a permit." And they came all at once. The State of California essentially granted authorization. So that's been a problem.

What we're doing now is trying to correct that. We're continuing to regulate Quemetco as if they have been regulated under the ISD. Our inspectors go out and inspect the site. And Quemetco can tell you they have received some violation fines as if they were under permit. So they paid the fine.

So it's not as if they have not been regulated. But now we're going through this formal permit process, the ISD document. It employs the ISD document's history. They will continue to be regulated.

MR. ALMEIDA: That shrubbery on 7th Avenue, is that for when they hose off the contamination going into the residents' wall and bouncing off?

MR. CHANDLER: I couldn't answer. My suspicion is that's not what the shrubbery is intended for.

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MR. ALMEIDA: It's just like a prison. You can't see nothing. Those neighbors that comment about the smoke at nighttime. It's more at nighttime than the daytime because you could see it.

And also the San Jose Creek, I haven't had a chance to walk over by Quemetco to take a picture. I wonder what's leaking in, because they got like leaks coming off Quemetco and the other side. I would have to look at it. There could be something coming off at Quemetco.

MR. CHANDLER: Again, the surface water is addressed in the EIR. I could tell you, at one point in time in the past, Quemetco was allowed to discharge into the San Jose Creek. They had a permit to do this. That was rescinded by the Water Board. And today Quemetco doesn't discharge into the creek.

UNIDENTIFIED SPEAKER: You sound like they're squeaky-clean now.

MR. CHANDLER: I'm not saying that. I'm just trying to say that at one time they were allowed to. So far as our inspectors were able to determine, they're not doing it today.

MR. ALMEIDA: They need to be scrutinized, whatever is coming out of Quemetco.

MR. CHANDLER: Quemetco has groundwater

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monitoring. They provide us -- they provide us -- as if they are under permit, they provide us with quarterly monitoring reports. These are available for public review.

As I recall I don't believe they sample the surface water at the site, but they do sample shallow groundwater and sample groundwater.

UNIDENTIFIED SPEAKER: The record they have -- how are they doing all the recordkeeping, then, so you know what they're doing and what they are not doing?

MR. GHAZANSHAHI: They're inspected to see if they have a violation. The purpose is not just to fine them; the purpose is to correct it. At any time the inspector goes there to cite for some violation, they sit down and they arrange a schedule to correct the problem. And that is the purpose. It is not just a fine. The purpose is to correct the problem.

MR. CHANDLER: Hopefully, the inspector goes back and that same problem won't be there.

MR. MAYS: You know what? I'm going to hold off. I would like to approach it this way: We have procedural questions that are being asked and then people are saying you should address transportation and air and so forth.

I would like to call up the speakers who have asked to speak tonight to address specific elements

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that should be looked at, such as what you have been mentioning. I want to cut off the procedural questions.

Why don't we take care of the business at hand, first, and then we will just spend whatever remaining time just fielding questions, because we have other times we can have for the record to reserve for that type of questioning. So why don't we get back on track here.

And let me call up to the podium Kenneth Gunn.

MR. GUNN: First of all, I would like to thank you ladies and gentlemen for being here and showing your concerns to this issue.

I would like to ask, by way of your asking, are the representatives here from Quemetco, and if so, in what capacity they might be?

MR. REYNOLDS: My name is Steve Reynolds. I work for RSR, the parent company of Quemetco. I'm from the Dallas, Texas office. I'm a Regulatory Specialist in the Environmental Services Department.

MR. ST. JOHN: I'm Charles St. John. I'm the Environmental Compliance Manager at Quemetco.

MR. AVILES: My name is Alfredo Aviles. I have talked to some of you. I'm also a resident in this area. I've been working at Quemetco for the last 22 years. And

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I'm currently a Systems Manager.

MR. VONDERSAAR: My Name is Mark Vondersaar. I'm Plant Manager to Quemetco. I can give you a business card after the meeting.

MR. GUNN: My name is Kenneth Gunn, and I'm a Teamster's Union Steward at the Volkswagen plant a couple doors down. We're next door to the facility across the San Jose Creek. Myself and our workers from the plant are very concerned about the lead as well as the other emissions; arsenic, plutonium, sulfuric acid as well as whatever else might be emitted.

Our contact with the emissions are basically on the shop floor as we are working day-to-day. The two shifts that we have are one starting at 6:00 a.m. and our last shift ends at 10:30. We seem to be held captive in terms of the exposure to whatever direction the wind blows. I know the effects on the shop floor as we constantly hear complaints of bad air quality coming from our doors on the dock there. We have a warehousing facility there.

What we hear is there is a terrible smell, or no smell, but our workers are left with a metallic taste in their mouth, which I hear people say.

Personally, I hear that breathing is being affected and they try futilely to avoid the toxins by not

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breathing. And that's not very practical. People have complaints of being extraordinarily tired or lacking of energy after their shifts, sore throats, headaches, nausea.

We're concerned about what the parts per million dose is and what would be the proper information source on that.

Since we are in a heavy industrial area, we're wondering, also, how much public confidence there is in the facility in the area. We see a lot of other factors here with the water and the air and the earth and the cumulative impacts, but just the confidence factor one may have living or working in the area. If you're scared of the thing, but yet you have to live around it, it kind of creates a stressful situation.

My understanding on lead is that it has a cumulative effect on the body and organs and tissues. While it may show up in blood, it also has impact on the bodily organs and tissues. Lead in the clothing and the air is also a factor. If you're working in an area where the stuff is being emitted, it gets into the clothing and has to -- we kick it up with our shoes. After so many years of the stuff floating into the air and settling in the ground, do we unknowingly take this home to our families and our children? That's a very big concern.

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Just in our parking lot, alone, and our cars sitting in the lot, we notice that our car paint is damaged quite often, where it's peeling or damaged in some other way, maybe the varnish peels off of some sort.

Personally, I know that when I get off work at the end of my shift and I drive over the tracks here, I feel a sense of relief that I can breath. Once I get over those tracks, somehow I get past the line of those stacks. I feel the air is instantly different.

One thing that kind of baffles me -- and I do want to say one thing. I just have to work here eight hours a day. And I really sympathize with the residents.

Many of the residents, I am sure, probably saw the Proposition 65 warning in the San Gabriel Tribune with a number here to call to Mr. Aviles. I have tried calling Mr. Aviles several times and have left messages with a designated address or a phone call back.

We finally did this, and I had my boss call. And calling this number, here, the number I called must have been different because I did receive at least his voice mail. This number, here, that is listed in the newspaper was definitely incorrect because when we called each time we got a dental office.

Now, typos happen, and I understand that, but it does make it difficult to perhaps get information.

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What is the right number?

MR. AVILES: Unfortunately, I don't have it with me. The number at the facility is 330-2294, 818 area code.

MR. MAYS: Does everyone have a pen to write that down? We have pencils in the back. So at the end, if you want to repeat this number, make sure you check with the person from Quemetco before you leave to verify that phone number.

MR. GUNN: Thank you for the opportunity.

MR. CHERNOFF: That's exactly the kind of information that's helpful in these meetings.

I have a question regarding the concern -- you said the workers on the shop floor. Are they contained within the building or is it like it's flowing in?

MR. GUNN: There's a loading dock that faces directly on 7th Avenue. And quite often we notice that the wind is blowing through. It comes through those doors naturally. And that's been our concern.

MR. MAYS: Let's continue with the speakers. And again, hold on to your comments and write them on your packet so you can make sure you remember to ask those specific questions.

Lillian Avery.

MS. AVERY: My name is Lillian Avery. I'm a 40-year resident in Hacienda Heights. My husband and I bought our home new on Hedgepath Avenue between Clark and Gale. So I'm a close neighbor of Quemetco.

When we purchased the house, brand new, there were about 220 houses going in on that development. And the property that Quemetco sits on was an Armstrong rose garden; acres and acres of roses. It was sold to Western -- I think it was Western Lead -- took over about 1956. They took over about 1957 or '58, and eventually Quemetco took over, out of Dallas, Texas.

I have had concern about Quemetco all these years. I agree with the young lady who spoke and said that children -- youth growing up there her age have been exposed to Quemetco and its emissions all those years.

If the health department had conducted the study of children at least ages 1 through 12 or 1 through 16 in high school years, they may have found a large number of them were considered slow learners in that area. Is that because of their longtime exposure to lead emissions?

I have prepared the questionnaire you put in the notice of this scoping meeting. Let me say what I think that you should look at. There is a heavy flow of air emissions on a daily basis through the day,

particularly in the evening and throughout the night over Hacienda Heights at about rooftop levels at the homes between 7th Avenue and Turnbull Canyon Road and Clark and Gale.

There is concern over the control and management of hazardous waste, the water contamination of the San Jose Creek and into the impoundment areas. There's a health risk from lead and other hazardous chemicals to longtime residents in the area bounded by 7th Avenue and Turnbull Canyon Road and Los Robles Avenue and on the south and for children who live in that area.

There is real concern that Quemetco has been permitted to operate a hazardous lead facility, processing ten million batteries a year within a few hundred feet of residents. I would estimate that my home is about 700 feet from your plant. They have been permitted to operate on a temporary operating permit since the late 1970's, and particularly since 5/16/83, when they were issued an Interim Status Document.

My concern is, is there a cumulative risk from repeated exposures from the same source over a period of years?

When Buzz explained risk assessment, he talked about cumulative risks from a number of sources. But what about repeated exposure from the same source?

What are the parts-per-million of lead and other chemicals emitted on a daily basis? What about the smells, the odors, sore throats that Mr. Gunn spoke of; the lack of energy of the workers?

What about the workers in Quemetco? How many workers are there? And how many of them have been tested for lead exposure? And if they have -- if they have been exposed to lead, they suffer that, what are the symptoms and what is their treatment? What is the cumulative effect on the body and tissues of lead exposure or lead contamination?

When the study was done on the small children, ages zero -- one-month-old or two months old to five-year-olds, they gathered blood samples from each of those children and they tested them for lead content. They looked at the kinds of things that the families were doing insofar as even the implements they were using in their kitchens; pots and pans and so forth, and the houses, the lead, the paint on the houses and the soil around the homes.

Those houses were built in 1956. I'm sure that they were covered with lead containing -- paint containing lead. They're stucco homes, and the stucco was painted all the way through. So if you broke off a piece of stucco on my home, you would see the same color all the

way through. So in some way they permeated the stucco with the paint so it's the same color all the way through. They were fine homes, called the "Cadillac of Homes," with plaster and hardwood floors. Really good homes, and they have stood over these years. But like everything else, like people, like me, we grow old and houses grow old.

But the thing is, that when this lead study was done, they tested all these elements: the things that were used in the home, the soil around the home, the blood of the children. And they came up with somewhat negative results. I questioned it then. I question it now. I do not think that that study went far enough. I don't think it did.

Just the other day, there was a release in the newspapers that said continued exposure to lead causes high blood pressure. I'm sure there are a lot of people in our area that suffer high blood pressure and hypertension. Whether it's from the Quemetco plant, whether it's from the lead exposure, I don't know. But neither do you. It's something that we might need to check out.

I'll probably have some other comments from time to time. You know that. And I'll give them to you.

In the meantime, I want to say something about Quemetco. Whenever I have contacted them, they have

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been very gracious and helpful. And I think they are trying hard to be good neighbors. Unfortunately, they have chosen the wrong plot.

MR. MAYS: Marie Fergusson.

MS. AVERY: Before she starts, there is a children's preschool on Park between -- I think between Ridley and Turnbull Canyon Road. And there is also a children's -- it's a hospital on Gale, between 9th Avenue and Turnbull Road, for handicapped children. They have a number of children in that --

MR. MAYS: Hospital on what road?

MS. AVERY: It's on Gale Avenue between 9th and Turnbull. And it's been there for many, many years.

MR. MAYS: We can look into those.

MS. FERGUSSON: I'm at two blocks south of Gale on Valencia. And I'm angry because I'm an outside person. And when I go outside, especially sometimes at night, the odor is so strong -- and I'm an asthmatic, my granddaughter is an asthmatic, my neighbor is an asthmatic. And we're all having troubles with our asthma. The nights -- it's so strong, I can smell a strong scent of plastics. And I'm ill. And I get angry because I can't go outside, which I'm an outside person. And I'm angry with the air. That's it.

MR. MAYS: Barbara Fish.

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MS. FISH: I would just like the residents to know, who are here speaking, if you listen hard enough and long enough, you'll get the answers to your questions thanks to these people.

MR. MAYS: Okay. Thanks, Barbara.

Henry Pedregon.

MR. PEDREGON: My concern is basically at night, depending on where you're at, you can see a smokestack over a mile. My concern is what is actually coming out of that smokestack. There's about four or five schools in the affected area. And is it safe for our kids to be playing on that area?

Somebody touched on this: Why were the children only tested for lead? Maybe there should be a cancer study for older people, the geriatric people, to see if maybe there is some connection.

You mentioned water runoff. How is that done? When it rains it rains. The water is gone. Where do you test the water at? How do you test it? Maybe you should test down the creek, further down the 605 where it piles up some. But I think there's a lot of questions.

MR. CHANDLER: I think you have to remember, if you go down the 605, you have all those other folks that are between Quemetco and the 605 who also could conceivably be discharging in the San Jose Creek. You

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have to be a little careful about where you sample.

But I think, again, that's one of those issues that we're going to see that's addressed, especially now that people have expressed a concern about it. It's going to be addressed to the EIR.

MS. FERGUSSON: I'm off of Valencia and so is that hospital for the children. So it's off of Valencia and Gale.

MR. MAYS: Thanks for that clarification.

Lucy Pedregon.

MS. PEDREGON: I would like to speak to all of you on a personal level. Lucy Pedregon of Hacienda Heights, resident of 17 years.

My husband and I do not smoke, and we have an occasional drink, and we do not take drugs. We have four children, one of which was born special. And when I hear the effects of lead in the air, I wonder if that is affecting my family. Is this the result of the lead emissions? Nevertheless, my son is a joy.

Also, too, I ask that when you do a survey on the lead emission, find out what time of day it is worst. Because my children are congregating at school grounds and playing at a certain time of day. I think it's only fair that we warn the school and work with them to keep them out of the play area when the lead emission

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is at its worse. That's all. Thank you.

MR. MAYS: Barbara, did you want to go now? That is it for our speaker requests.

MS. FISH: Just quickly. I really don't have any questions left.

My name is Barbara Fish, and I'm the environmental chair to the Hacienda Heights Improvement Association. We have big, long packets of the documentation that has been in newspapers regarding the facility, regarding the lead testing. We share -- I share the concerns of the woman who was the prior environmental chair for our association.

We do not think that the County did an adequate test. We do not think that it was of long enough duration. We feel that even though it's clear that these young children are the most susceptible, that long-term residents have been there and it was a very minimal study with a great deal of P.R. through the newspapers, you know, everything is A-ok.

I have some friends who are Special Education teachers. And they are saying that some of the things that they see upset them. One of them is an eight-month-old baby who was testing at 12 micrograms per liter. The baby is eight months old. Have they had any Mexican medication that possibly could increase that lead

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level? They said no. These numbers are available to you.

These people are -- some of those youngsters were in dirt trailer parks and places where they're playing in the dirt. And one of the things that this study said was that because we were living in Hacienda Heights and we had manicured lawns, that the lead in the air was not going to be a factor. That does not take into account the fact that these young children were playing with trucks in the air along Valley.

We're going to be expecting a very, very careful EIR. We have seen the one-in-a-million acceptance projections, and we will be skeptical and we will evaluate this, we hope, in a very fair manner.

But as you can see, our residents are concerned. They have been concerned since 1987. I have answered the hotline telephone for our association, and I can't tell you the number of times that people have called and said, "What is coming out of these smokestacks, there?"

I am equally concerned about those on-site monitoring wells. There's an aquifer that shows some of the water is going off from the administration building directly into the creek untreated. I do not believe that we know any of these answers, now, but I would like to see those records. I would like to know why the Regional

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Water Quality Board has been surprisingly silent on some of these things.

That's my personal opinion. I put a call in to John Bishop who was recommended to me. And I did not get a return call back. I have worked closely with Stetson Engineering and many, many people who were experts in water in this area. The Regional Water Quality Board has been very truthless. And I would hope there is a lot of pressure that is kept on them.

I recognize the state agency does the best EIR's. And we're expecting a good, thorough one. But we also wanted to know who is tending this locally. I'm a little bit concerned about the risk of upset. I understand that water mixed with some of the chemicals would be explosive. There are many factors here.

But I do trust that you will deal with these, because I firmly do believe that the state EIR has done adequately.

And as I said, if you listen long enough, you will get some of these answers. And we will be looking forward to your documentation about it.

Thank you.

MR. CHANDLER: I think Tom expected me to stand up. In my previous incarnation -- I spent something like nine years, eight years at the Regional Water Quality

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Control Board. I worked with John. My job from the beginning was to track down the various facilities in the City of Industry whom we thought might be responsible for the collagenated, volatile organic compounds in the drinking water there. We ran a big chunk of the investigation from the Water Board.

When I started that particular job, we were told by our management not to look at Quemetco, because Quemetco was being handled under RCRA. So John's job is very similar to mine.

Quemetco wasn't brought into that program because it was being dealt with by the U.S. EPA at that time. And that sort of explains why the Water Board -- from dealing with them, I think they haven't been interested in them doing anything more for a long period of time. That was because EPA was the lead -- the way the Regulatory Agency works is, somebody needs to be the lead instead of everybody getting out there and getting in everybody else's way. The EPA has been the lead agency, with respect to Quemetco at this time.

We're now the authorized agency. The EPA has authorized us to essentially issue federal-equivalent RCRA permits. Now, the DTSC is standing in place of the U.S. EPA. And we're getting most of the sites that EPA has had up to this point in time. But the lead on

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Quemetco is under consideration for transfer from the U.S EPA to the department perhaps even in advance of the permit.

The idea originally was that things would continue with EPA as lead until Quemetco had its permit. But there may be that change. A number of other facilities throughout Southern California are undergoing that same sort of a transfer.

MR MAYS: By the way, I mentioned to the crowd that Phil is a member of the project team. He wanted to maintain a low profile tonight. But I think it's important to mention that he's Jamshid's supervisor. His background is hydrogeology.

MR. CHANDLER: A number of things. I'm what's known as the department's Hazardous Substances Engineering Geologist. I'm a supervisor. I'm a geologist doing a permitter's job. I have geologists reporting to me and I have two sets of hats.

My projects get quite a bit of geological oversight.

MS. FISH: You're sitting on some faults, you know.

MR. CHANDLER: There are a couple of developments you could probably curse me for in another incarnation.

MR. MAYS: Don't forget to mention, when you ask

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questions from this point, just, please, reiterate your name before you ask the question.

MR. GUNN: Again, I would like to ask Buzz here, in a worst-case scenario, say if the plant caught on fire or some pressure blew, what risk would there be? Would we have to evacuate?

UNIDENTIFIED SPEAKER: They have had a fire just recently.

MR. CHERNOFF: I haven't seen a list of the contaminants concerned, so I'm not going to be able to answer your question right now.

But I have a question I want to shoot back to you and a couple of other people. I have been getting the impression that the emissions are greater at night than they are during the day. Just to make sure, that's not because it's cooler at night? It's -- you can go out there and look right --

UNIDENTIFIED SPEAKER: No.

UNIDENTIFIED SPEAKER: Helicopter people could monitor -- we could call the Air Pollution Control.

UNIDENTIFIED SPEAKER: You look out there right now.

UNIDENTIFIED SPEAKER: They blow it off at night. It hovers low. We have come around on Clark, and my daughter would say, "Gee, I have that funny taste in my

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mouth." I didn't taste it, no, because I was used to it.

UNIDENTIFIED SPEAKER: There have been times when I'm just driving by there and I had my windows down and I just got an immediate headache from it. And when I'm studying I have to close my windows at night so I won't have to breath that contaminant in the air. It's pathetic in my opinion.

UNIDENTIFIED SPEAKER: My fourteen-year-old has constant headaches.

MR. MAYS: Names please.

MR. DOMINGUEZ: My name is Ed Dominguez, and I'm a resident here for the last nine years. And when I drive by there I get these odors; I have to roll up my windows now because of the headaches I received from this.

And my concern is what is Quemetco going to do now? Not wait three years from now or a year from now. What are they doing now to stop this? Do they have any asthmatic monitoring personnel checking all these levels or anything? Are they going to implement that in their overall plan? If not, do they plan to eliminate -- do they hope to change this soon? What are they going to do about it? Are they going to do this soon or are they just going to wait like Mr. Rudy was saying here, 19, 26 years before they start doing something?

That's my concern because I have a little

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brother. He goes to school right here. And I'm concerned about his health. You know, it's not about -- you know -- I just feel, personally, it's going to affect my brother in the long run if they don't do something now.

Thank you.

MR. CHANDLER: Get your name for the record as well.

MR. McKEE: Duncan McKee (phonetic). I'm a resident of 38 years. And it just seems incredible that the state agency would actually let these guys -- what's the deal here? Is the dollar worth that much to injure everyone's lives? There is no doubt; everybody all knows it. So what's the deal? Why don't you close them down and make them move somewhere else and shut down their operation? How can you continue to lie to residents?

You already got a landfill. There's guys polluting all over the place, and you guys can't keep track of them. There's a pesticide factory down the street, right on Proctor. They don't monitor them. They just continue to throw pollutants on us, and you sit up in Sacramento. Nothing gets done. Their permit will go through and everything will go back to normal.

I don't know. Do they pay you guys off, or what's the deal?

MR. MAYS: Let me just add about the EIR, that

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everyone is entitled to due process, and the preparation of the EIR is the formal, legal way to investigate these concerns.

Of course, gut-level feeling, everyone would love to just say, "Shut them down," and that's what happens. But we have to go through due process.

MR. McKEE: Sure you go through the due process; sure you go through the paperwork. They're paying the guys to prepare the EIR. You guys aren't there in the lab.

MR. CHANDLER: Well, the labs -- first of all, we're talking about labs. Any lab that they use for any water samples, they take air samples, soil samples, it has to have been put through --

MR. McKEE: Right. They're an approved lab. So once every two years --

MR. CHANDLER: Not just once every two years. When they submit samples, when they submit the Water Quality Report to me, we look at the QAQC report from the lab. Sometimes the holding times are off on some people. And I'm not going to refer to specific incidents with Quemetco because I don't remember any.

We spot those types of things when we check the lab date. That stuff is invalid. If it's a nondetect and they held it for 16 days, and it's a 14-day holding time, we don't accept that. So we're fairly careful about that. The checks on the lab --

MR. McKEE: You need multiple labs to do the tests.

MR. CHANDLER: With respect to the water, when we go out into the field and evaluate the water program, we take split samples. It's one of the requirements when I do a Comprehensive Monitoring Evaluation Report on their water program. We're trying to run it about ten percent.

Remember, you guys are paying for these samples. It's the people in the State of California that pay for the samples. So we can't duplicate every last one.

MR. McKEE: Why don't we take our own samples and do it in an independent lab?

MR. CHANDLER: Then we would have to look about how you go about your sampling protocols. When I go out in the field and I do my CME, I have a geologist that works for me standing out there, seeing where they put the pump in the well to get the water. I'm watching to see if they get an adequate sample.

MR. McKEE: You're watching their guys take the sample?

MR. CHANDLER: That's right. My staff is watching their guys. And this is not on a regular basis, but we go

out periodically and run sort of like a final exam on these guys.

MR. McKEE: You watch that sample. You take control of it and take it into the lab, right?

MR. CHANDLER: I take my ten percent. In other words, let's go monitor Well 8 on the site. I watch their guys pull their sample, their volatile organics, and they put the sample in the vial. They put their metal sample in a container.

My guy gets out his vial. He gets out his metal bottle, and he says, "Now, give me some water." And that water goes to a different lab. It goes to the state lab. The State of California pays for the analyses.

When we get their results and we get our ten percent results, we take a look. Is this data a reasonable amount? We also take a look at the behavior. Well Number 4, that sucker has been in that site since the mid '80's. So it's got a history behavior, a lot of different water quality parameters.

If they blow something, their consultant really screws up, that thing is going to stand out like a sore thumb. That's typically what we do.

MS. AVERY: When you take your ten percent test sample, whatever it might be, do you use the same formula for analyzing the data as the lab does?

MR. CHANDLER: Not so much a formula.

MS. AVERY: If the result is reasonable?

MR. CHANDLER: If the result is reasonable. What I do is -- the types of samples I most likely deal with are volatile organics. They run at their lab, say, 624 mass spec run for the organics. Our lab runs maybe a tighter QAQC. I take a look at them. That's how we do it.

And for instance, if we find that we're seeing something that they're not, then we may ask them to resample. In other words, if we get a hit on a split sample -- I don't want to kid you that we go out there every time we sample. We can't. One, we can't afford the staff to do it, and, two, the state can't afford the lab costs. So we have to make what amounts to these spot checks.

But if there is a discrepancy in this stuff -- for instance, if we see lead in the water, they're not seeing lead in the water, then we have the obligation and the right to ask them to resample again. That's another thing that we build in the permit issue.

Since we do water quality sampling, it will be part of the permit, either in the corrective action -- typically in postclosure permits, we have it under its own section. I'm not exactly sure how it's handled, but that

will be a component. Right now they're dealing with groundwater sampling under EPA. I don't think it's been approved. There are some negotiations going on in that water quality sample. They're doing that as we speak

Again, EPA -- remember EPA is the lead on this particular site.

MR. MAYS: I have one card that I received a little while ago, and I want to honor this request for a speaker. Loretta Chase.

MS. CHASE: I live at 824 South 3rd Avenue in La Puente. I'm west of the site. And as it was pointed out earlier, Quemetco processes, like, ten million batteries. There's a large amount of waste lead residual. And I think some of it goes up the stacks, some of it goes into the channel, because the channel was, in years past, a road to the way in. It has been patched over. It's a pretty good patch job.

And there's also the incident where they were fined two-and-a-half million dollars for dumping 31 million pounds of lead in Tijuana, Mexico illegally. So they do have a lead waste product they have to get rid of, and it's apparently very difficult for them to do so.

I guess that's about it.

And there is a lot of regulatory agencies that are connected with them. You are one and you have

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found them in violation. There are other agencies that also found them in violation. And I don't know how they're taking care of it. I believe they're paying the fines. And I think that the things that create these violations are still occurring, and they're cited. And I think they pay their fine and this goes on as usual.

We need a lot tighter control on this operation. We have been putting up with their effects on our communities for actually -- all my lifetime. I've lived here for 30 years, and I have been going through all these problems.

Thank you.

MR. MAYS: I would like to let everyone know that at our Glendale office we have the full administrative record of all Quemetco public record documents in addition to all other projects we work on. So as far as you wanting to look at any particular document that's been filed on Quemetco in the past, the file is open for public review. And those are public record documents, of course.

MR. GUNN: Do you have anything on the Internet?

MR. MAYS: No.

MR. CHANDLER: No files on the Internet, no. We're not in the 20th century yet.

Other places you need to look at -- not just at our agency -- but bear in mind, the air quality aspect

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of that site, the lead agency on that is our Air District. It's not a department.

The Water Board deals with a fair amount of the water aspects in PDS permits, storm water permits. Again, this is an issue of rain hitting the site and running off someplace. The Water Board issues those and from federal government. And it's supposed to be in charge of the monitoring, seeing that the folks at Quemetco follow the rules of the permit.

MR. MAYS: And please make sure and announce your name.

MR. ROBLES: My name is Dave Robles (phonetic). I'm a new resident. And I wonder why that one million dollar fine wasn't documented or added to the -- over a hundred thousand dollars worth of fines.

MS. CHASE: It is another regulatory agency. It's probably the federal government.

MR. MAYS: I think you're talking about the parent company.

MR. CHANDLER: That's probably the feds. A hundred thousand dollars -- I think as Jamshid mentioned -- is essentially what's come out of the Department of Toxic Substance Control, from various inspections. That was our findings with the violations and the settlements with respect to the enforcement

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people.

The airborne folks may have fined them as well. But again, that's not part of our particular department.

MS. ALBERT: He was saying about the testing -- Betty Albert.

You said -- you were talking about the testings of the lead. Are you testing for the other things that are listed?

MR. CHANDLER: They do a metal scan. Part of their water quality sampling analysis program includes a concern that you mentioned earlier, sulfate. There are problems in our water basin with sulfates. A concern I have -- I would like to see the EPA sample for a full sweep of the total volatile organic compound, VOC. So there's a number of issues that will eventually get ironed out.

Remember, Quemetco is in a transition. Right now the feds are the lead agency. We're working with the addition of a permit incorporating corrective action elements, things that -- essentially we told Quemetco, "You have to do these things." We want to pull those things in under the permit and make those essentially enforceable.

MS. ALBERT: Your tests are just on water? Or are

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they of the air and soil and all the other things too?

MR. CHANDLER: As a geologist, the test that my folks deal with is primarily the water. When Quemetco did their closure of the impoundment, I had staff out at their site looking at the work that Quemetco was doing, samplings that they were doing.

When Quemetco did background sampling to develop background levels for compounds other than lead -- I think it was arsenic. I can't remember what the other compound was -- one of my staff people was out picking locations or working with them to choose a location. So we were outside. What might be an air pollutant from the emissions, we wanted something to be a true background sample.

We also didn't want to collect the sample from a shallow level in the soil where leaded gasoline could have put that in. We're not segregating the types of lead. There is lead that could be coming from emissions from all of our cars. The tests that we perform don't separate those.

There are various things that you could do, but those are expensive. And again, the state doesn't have the money. And we haven't made that requirement on Quemetco either.

MR. PEDREGON: Henry Pedregon.

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You mentioned earlier about -- when you do spot tests, you said you use something like ten percent. Now, you do ten percent spot tests of all EIR studies? What do you mean by that? You may bypass Quemetco and not take any samples.

MR. CHANDLER: The ten percent is sort of a guide. If you go out in the field, one of the types of evaluations is we have what we call a Comprehensive Monitoring Evaluation Program that we apply to facilities that have impoundment, landfills, waste piles or underground tanks that didn't have secondary containments. They had to close those, essentially, as landfills.

We apply this particular program, going out and looking at their site in great detail, every so often to see that, not only their monitoring programs are going according to plan, but they hand us a groundwater sampling analysis plan. We look through it. We tell them, "We want you to do this, this, and this." They go back and revise it, and they give it back to us. And we say, "That looks good."

Maybe after two years, after we approve that thing, we go out in the field and we want to see essentially that the company is following that plan. So we go out there and find out somebody is setting up a pump in the wrong place, set it down too close to the bottom or

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right up at the top or they are purging a well, and when we believe that there ought to be water taken out -- it could be stale water, it might be gas -- we go out and test it.

It's like you take a final exam after taking a class in school. And if they are making mistakes that they ought not to be making, then -- we are doing this under a Surveillance Enforcement Program. So the Surveillance Enforcement people fine them for doing things wrong.

It's only ten percent of whatever. If I go out, it's only ten percent of those samples. So out of ten wells, I'll sample -- maybe I'll pull one type of sample from one and one type of sample from another. But I'll only take ten percent of the total number of samples that were taken.

MR. MAYS: Hold on just a second. Before we continue, I want to ensure that our staff doesn't have a 1,000-page transcript to look at in which 80 percent of the transcript is procedural questions that really have no bearing on the scoping.

So it really is a procedural issue, now, whether we should close off the transcript portion of this and just have a more informal chat on procedure.

I want to make sure, however, that we get

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all components of the scoping taken care of tonight. If we can handle those first, I would appreciate it. Then we can get on to our procedure in sampling.

MR. McKEE: I have one final comment.

So basically, what it comes down to is no matter how much they pollute, what they do, all they're doing is paying what they regard as a cost of doing business, a fine, and just continue on. That's what it comes down to.

You guys don't do anything to stop them. You don't make them quit polluting. They just pay a simple cost of business, which is minimal to the amount they're making.

MR. MAYS: I should let you know --

MR. McKEE: But to them that's a cost of doing business.

MR. MAYS: Those are civil issues. If there is intent to break the law -- in other words -- a willful intent to break the law, that's criminal. If someone is caught willingly breaking the law, that's criminal and they're subject to --

MR. McKEE: If they continue to do it --

MR. MAYS: -- imprisonment or criminal penalty. We're talking a lot of civil action here.

But in some cases, we have had criminal

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actions.

MR. McKEE: In some cases, but never in this case.

MR. MAYS: I don't believe so. Not in this case; not criminal.

MR. CHANDLER: It requires proof. And these aren't particularly easy issues.

MR. McKEE: What it comes down to is you don't have the manpower.

MR. CHANDLER: We have enough manpower to do certain things.

And I would say that based on our inspectors' reports, that Quemetco has been coming into compliance on a large number of issues that could still be a problem but that aren't.

I think that the EIR process should be pushed to look at these things to bring them out in some sort of shape that allows you to look at them and to evaluate them. In other words, AQMD --

MR. McKEE: People like Quemetco can buy permits so they can pollute more than they're normally allowed to from someone who has extra pollution --

MR. CHANDLER: Yes.

MR. McKEE: You can buy a permit to pollute more. Okay. "I will pollute as much as my permit will let me, so I buy it from somebody who uses it less on their

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permit, so I can pollute more."

MR. MAYS: I think they're talking about credits.

MR. CHANDLER: There are some things they can't sell. They can't sell credits enough to bring it up to the point where the people next door are subject to -- what is it? One times ten.

In other words, I think that the Health Risk Assessment has to go forward at this site. And I think we have to take a look at all the various environmental aspects of air quality and water quality. And I think we have to give the company due process.

MR. MAYS: Keep in mind -- again, I want to mention that the EIR is the legal forum for addressing environmental concerns.

Mr. Almeida, hold on just a second.

This document can be used by you to ensure that your comments have been incorporated. And once the final draft -- or once the draft permit determination is put forth before the public, you will have yet another chance to come forth and register your comments.

After that, keep in mind, there is yet another step. If you're still dissatisfied with the final permit determination, if it is, let's say, permit approval with some conditions based on the EIR, you're still not satisfied, as you commenters have the right to appeal this

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to the Department Management and Headquarters in Sacramento.

If that is not satisfactory, and you're not satisfied with the appeal decision, you can sue. Everybody has the right for a legal action.

So keep that in mind. This is a legal process. We can't go about this in any other fashion. But to be fair under the law, Quemetco is operating under due process. We are operating under due process tonight.

So just try to be patient with some of your concerns. And it is a lengthy process. We want to take that one step at a time.

Now, with that, I want to wrap up the scoping, if possible.

MR. CHANDLER: I have one question on the scoping.

As the environmental chairperson, are you aware of any other blood lead analyses?

MS. FISH: The EQMD did one.

MR. CHANDLER: You mentioned one child. Had any other persons in the area had their children tested?

MS. FISH: The problem is in this case many of these children come from very little income families and they do not have insurance. This child's father had insurance. It's an eight-month-old baby.

And as I said, the Special Education teacher

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in our district -- who happens to be very ill tonight or she would be here telling you this -- is very concerned because she has these students that are being brought in from Valley and points quite near this area. And they're beginning to feel -- I can't say this is proof. But they're beginning to feel that there should be better studies.

And the AQMD did one on La Puente children. I do have a newspaper article that tells you what's been done prior.

MR. CHERNOFF: Would that be helpful to you?

MS. FISH: How will you approach these things? How specific will you get on this thing?

MR. CHERNOFF: In terms of doing blood lead levels, we won't be doing it. That's something I want to talk about after the meeting. I really think that you need to be in close contact with your County Public Health Officer, if you're not already.

An eight-month-old child with a level of 12, that's a serious public health concern and something that the County Health Officer should know about and should be taking action on.

And I think that if I were to advise you a route to go, it would be to really voice your concern with the County Public Health Officer.

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I will let the public health officer that I deal with know of your concern. And hopefully we'll get your number and have him contact you.

I think it's true that you can push studies to be done by the departmental services. There is a study that was just presented at a toxicology meeting in Anaheim about two months ago. Somebody from UCLA did a very large study, about 5,000 kids. The designation was South-Central.

Now, we have contacted those people and asked them if they could give us a printout of the Zip Codes that have been used to see if, in fact, any other areas have been used outside of South-Central that remain in their attachment so we could get their assessment.

But I think that if I were in your position, I would be really -- particularly for the one child -- the one child is a concern, and certainly that should be brought to the attention of the health officer.

But in terms of initiating studies for -- our department initiating studies, that's not something --

MS. FISH: The county doesn't have any money.

MR. CHERNOFF: If you go to the County Departmental Services -- there's a childhood lead study program that's carried out through the Department of Health Services.

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MR. MAYS: What about EPI studies?

MR. CHERNOFF: That's what I'm saying, state.

MR. MAYS: I think Rudy was first.

MR. ALMEIDA: I'm going to bring this up. We should have a statute of limitations for conditions like this. The effects of cancer, we should have a statute of limitations to legislation by the subowner and cut down the EIR.

Instead of waiting until 1986, we should have done this a long time ago. Bring down the EIR process. Have the legislation bring down the EIR in a quicker response time than waiting all these years, since 1986, to do this, when it affects the health of whoever. So we waited a long time.

Jim Davis and Barbara Fish, remember what I said now. We can introduce a motion and have the legislation come up with a Bill and the California Senate and legislature and get this thing EIR inspected, because it's on my list. Bring it down to the proper representative.

MR. MAYS: So an expedited permitting process. And that's important. If you're not happy with anything regarding regulatory procedure, you do have that legislature option, revisiting with your state legislature.

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MR. ALMEIDA: Nothing gets done.

MR. ALVARE: Mr. Alvare (phonetic).

Since Quemetco is paying for this study, why isn't there another external agency participating in the study? I feel the fact findings would be biased since they're being paid by Quemetco. That's all I want to address to Quemetco.

MR. CHANDLER: This agency isn't being paid by Quemetco. In other words, DTSC isn't paid by Quemetco. They're paying a contractor to prepare the EIR. We're doing the evaluation of their permit. And the evaluation of the EIR is on your money. You're paying our salaries.

MR. MAYS: Keep in mind, too -- let's say you own a local business, and the State Building Board came up to you and said, "We're going to look at your roof. And we're going to bring our own government officials to look at your roof." You would say, "Hey, can I get my own contractor and take a look at it?" And you would want to guard your own interest, of course.

And you would have to go to the licensed contractor, and then that licensed contractor's work would be reviewed by the state agency. It provides due process to the company. I realize it would be nice, from the public's perspective, to have the state do it all. But it does provide that due process to allow the Applicant to

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hire their own consultant. It's just a part of due process.

MS. CHASE: I don't think I would have a problem with their hiring their own consultant, but I wouldn't like to see them use people that are already employed by them. They could have the degree and knowledge and so forth, but I think people like you, for example -- I don't recall your name, but I feel you would probably be someone that would be qualified to do that. I don't think it would be fair if they pulled from their own staff of qualified people to do these studies.

But if they were to hire them from the outside, we have to look at that.

MR. MAYS: Tom, why don't you briefly state a little bit about Chambers, here. I think it's important for everyone to know Tom Ryan. As a member of the Chambers Group, they're going to be working on preparing these documents. And I think it's helpful for you to meet Tom and find out a little bit about who the Chambers Group is.

MR. RYAN: One thing we often do is submit our qualifications and have them as well as the DTSC as part of the repository. So any questions that you might have about the company background or who may be working on the study or what our track record is, it's available for you

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to look at.

The Chambers Group, first off, has not worked with Quemetco previously. We have been in business since 1978. And our primary business area during that period of time has been in preparation of environmental studies and, of course, with CEQA we have done all kinds of different studies. We have done studies for hazardous waste landfills, for solvent processing facilities, we have done EIR's for bridges, for roads, for wastewater treatment plants, for housing developments, for skyscrapers, just about any kind of project.

We have 40 people, full-time people. Many of those people are degreed professionals. We have several Ph.D.'s; we have a lot of people with bachelor's degrees, master's degree, various fields in biology, planning, cultural resources, GIS. We do a whole gamut of things.

I got my degree in planning in 1973. I started working at that time preparing environmental studies for various projects. So I have worked with CEQA almost as long as CEQA has been in existence.

So we have a pretty good firm. We have good, capable people. If you did check on our references, I think you would find the work we do, particularly for public agencies, that's about -- 80 percent of our work is

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done for public agencies. I think you would find we have a fair track record with good, credible, readable quality.

UNIDENTIFIED SPEAKER: What's the approximate cost?

MR. MAYS: I guess you could speak in general terms.

MR. RYAN: We have an initial contract. Part of that process here is to scope this. We don't know exactly what the full scope of the documentation is going to be at the time. We're scoping mainly when issues are brought up that they will meet the study. And at this time trying to determine with DTSC, the scope of the Health Risk Assessment, exactly what it's going to have in it, preparing all the documentation.

So we're evolving the scope. And I'm not sure if I could give you a figure right now.

MS. AVERY: Who drew up the proposed scope?

MR. MAYS: Jamshid, who drew this?

MR. GHAZANSHAHI: Those were prepared by the consultants.

MS. AVERY: By the Chambers Group?

MR. GHAZANSHAHI: Yes.

MS. AVERY: Where are the Chambers Group located?

MR. RYAN: We have offices in Irvine and Riverside.

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MS. RYAN: Do you have an estimate of the cost?

MR. RYAN: Presently we're working on a $75,000 contract.

MR. CHANDLER: That reminds me, I actually misspoke a moment ago.

I believe that we are charging Quemetco for CEQA oversight. I believe we have actually -- the permit, the public is paying the permit. But we're actually doing cost recovery on CEQA.

MR. GHAZANSHAHI: We have an application. We are trying to recover the CEQA cost for people. Again, to save the taxpayers some money.

MR. MAYS: I see people filing.

UNIDENTIFIED SPEAKER: You say that you have this element to the EIR. Are you still testing the air? Are you going to be testing that and the water? They say they're testing water and air. Are you testing the air? Are you testing the soil? Are you checking the health of the people in that area? Is that what part of your job is, to check the air quality?

MR. RYAN: There is monitoring that goes on now. I think part of what we're doing right now is gathering data at that area, seeing what has been done, what information is available. And then we need to see what needs to be done to fill in gaps -- if there are gaps.

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MR. MAYS: That might shed some light on modeling versus point testing. I'm not familiar with that. I thought it might lead to a more specific response regarding the Health Risk Assessment, regarding modeling versus actual source testing, as far as what the Health Risk Assessment will incorporate, as far as the toxicology data.

MR. CHANDLER: I know they have their modeling person.

MR. GHAZANSHAHI: They have to test the risk assessment for the QMD. But all of the requirements for this test assessment is beyond what HMD requires. So they're going to submit what they have to work from, the air monitor analysis they have for the risk assessment. We're going to review that.

Beyond that, Buzz is going to require them to do more analysis because of our requirements. As Tom says, we are more stringent than any other government agency. So the EIR requirement is the hardest to comply with. But we are going to use what they have so far.

MR. MAYS: Now, also South Coast has their own monitoring program regarding specific air issues with Quemetco as far as air monitoring. It's in addition to the Health Risk Assessment that we will undertake as part of this direct EIR, and that's ongoing. So it's kind of

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an overlapping regulatory process.

MS. AVERY: There was something from the EIR. There should be a full description, a discussion and description, of the residential area to the south, to the southeast, to the southwest of Quemetco.

MR. GHAZANSHAHI: That is the first step when they run through the EIR study. Buzz said they look at the people -- the quality effects of the people, people living there, schools, hospitals, how many houses there are, how many are working around there. That's the first study.

UNIDENTIFIED SPEAKER: What businesses have you contacted? I think you have interviewed Golden State. What businesses have you talked to around Quemetco?

MR. MAYS: You mean as far as the community involvement components? As you know, we just started, and we didn't intend for it to be comprehensive.

We interviewed the bakery, Golden Fresh, Troy Lighting and then yourselves and the Hacienda Heights Improvement Association. We interviewed Mr. Kwan (phonetic), a local principal at a school. And I believe one of the surveys that we have received -- and by the way, I have received about 40-plus surveys returned, which, to me, is a good response for showing a lot of interest.

We plan, by the way, to continue with some

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spot interviews, basically, to get a full picture of what other kinds of community involvement activity we may want to do in the future.

It sounds to me like people have certain areas of interest. Some people are interested in how sampling is done and some are more interested in toxicology issues.

You, in the association, may want to host a workshop in the future on any given aspect that we are talking about, and help us decide in what other areas, the local schools, children and the health effects -- we can help coordinate workshops for you. So we can continue to add upon that.

UNIDENTIFIED SPEAKER: I have heard from the neighbors -- you may want to talk to some of those other businesses in the direct vicinity. But north of there you have residents.

MR. MAYS: That includes the Volkswagen business. I plan on -- after hearing his comments tonight, I believe he would be someone I would like to talk with. In fact, we received about a half dozen surveys from the Volkswagen facility alone.

Are there any other questions regarding the scoping? Keep in mind, we have until May 13th, correct, and if you know of anybody, by all means, we have extra

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packets in the back. Feel free to take a handout and distribute it to your neighbors or other interested parties and share with them the information you heard tonight.

And the phone numbers you have asked about, make sure that you utilize the phone numbers. Give us a call when you have any issues you would like to discuss. We'll keep you apprised of our progress. Again, keep in mind we're going to be working on these documents and we'll follow up with a public participation plan that will talk a little bit more about our outreach strategies. And in addition, we will put in relevant documents and we'll keep you apprised through information sheets.

UNIDENTIFIED SPEAKER: It won't go up to Sacramento?

MR. MAYS: No. It will all be here. The people we have interviewed so far told us to have it here. We take your comments and utilize those.

So thanks a lot for coming, and have a safe drive home.

(Hearing was adjourned at 10:15 p.m.)

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APPENDIX B

PERMITTED UNITS

PART III. PERMITTED UNITS AND ACTIVITIES

A. INTRODUCTION

This Permit authorizes operation only of the specific facility units and activities listed below. The Permittee shall not treat or store hazardous waste in any unit other than those specified in this Part III. The lead extracted from the spent lead-acid batteries regulated under this permit is considered off-site waste. Any modifications to a unit or activity authorized by this Permit require the written approval of DTSC in accordance with the permit modification procedures set forth in Title 22 CCR, Chapter 20.

B. POST-CLOSURE AND OPERATING UNITS

1. Descriptions are divided into two sections which are entitled "Post-closure Units" and "Operating Units". The Post-closure Units consist of the closed Surface Impoundment Unit and the former Waste Piles Unit. The Operating Units are organized into subsections. The unit descriptions specify the immediate source of incoming material, as well as the immediate destination of outgoing material.

2. POST-CLOSURE UNITS

a. **Post-closure Land Disposal**

(1) Unit Name: Surface Impoundment (closed).

Location: The closed Surface Impoundment is located along the northern boundary of the Facility, immediately west of the water storage tanks and waste water treatment plant.

Activity Type: The closed Surface Impoundment was used to collect storm water run-off and convey it to the Facility's waste water treatment system.

Operation/Status: Closed. The closed Surface Impoundment operated from 1975 to 1986.

Activity Description: The closed Surface Impoundment was used to manage facility-derived rainfall run-off, periodic washdown water from trucks which had carried spent batteries, process waste water, neutralized battery acid and scrubber waste water. The area immediately around the impoundment was designated as the Truck Washout Area by U.S. EPA. A large unbermed area to the southeast was called the Battery Storage Area. Similarly, a large unbermed area termed the Raw Material Storage Pile was located to the southwest. Fugitive hazardous waste and/or hazardous waste constituents from storage and processing lead acid batteries and other lead-bearing hazardous wastes were transported by sheet wash from the unbermed scrap lead area, polypropylene chip and hard rubber storage areas, the Reverberatory and Electric Furnaces slag storage areas, from parked trucks serving those areas during rainfall or during periodic wash-down operations at the Truck Washout Area into the closed Surface Impoundment. A portable pump was used to collect liquids and pump them to the Water Treatment Plant.

Physical Description: The closed Surface Impoundment has a gently sloping 6-inch thick, steel-reinforced concrete cap with surface water drainage system (small drainage swale and flow lines). The impoundment cap was designed to withstand truck traffic since it is located in an area where trucks delivered raw materials. It sits within the Facility which is surrounded by a 6- to 10-foot security fence.

Maximum Capacity: 0.084 million gallons per day.

Waste Source: Rain water with dissolved and suspended waste constituents from all surfaces of the Facility that directed rainfall run-off to the impoundment; process water; neutralized battery acid; scrubber waste water; washdown water from trucks.

Waste Type: Suspended and dissolved fugitive materials from spent lead acid batteries and other lead-bearing materials.

RCRA Hazardous Waste Codes Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), and possibly other hazardous waste codes in trace amounts.

2) Unit Name: Waste Piles (former, as shown in the 1980 Part A Application)

Location: As shown in the 1980 Part A Application, the former Waste Piles were located in a diffuse "Storage Area" which is coincident with the Former Raw Materials Storage Area (FRMSA), mapped in the January 24, 1994, Interim Remedial Measures (IRM) work plan. The FRMSA was situated in the central portion of the property, northeast of the maintenance building and southwest of the closed Surface Impoundment. As defined in the September 30, 1987, RCRA Facility Assessment (RFA), the Hard Rubber Waste Pile was located between the Battery Crusher/Cracker and the main building, and next to the Plastic Chips Storage Area.

Activity Type: The waste piles were used to store broken battery parts, including hard rubber and plastic chips, and slag from the Facility's furnaces.

Operation/Status: Inactive.

Activity Description: The former waste piles were used to store broken parts of spent batteries and slag from the furnaces. The former Waste Piles, shown in the 1980 Part A Application as "Storage Area", became loosely termed the "Raw Material Storage Area or Pile" and were located to the southwest of the closed Surface Impoundment unit. These were the scrap lead area, polypropylene chip and hard rubber storage areas, the Reverberatory and Electric Furnaces slag storage areas. One of the areas, approximately 155 by 110 feet, became termed the FRMSA, was specifically described in the 1994 IRM as having been used to store lead plates, parts, and grids from batteries, and lead sulphate mud collected from the sink/float tanks. A large area to the southeast of the closed Surface Impoundment unit was called out as the Battery Storage Area in the 1987 RFA. The 1987 RFA describes the former Slag Waste Piles as being the result of molten slag from the Electric Furnace, poured into molds to cool, deposited in a concrete bin after cooling, broken up into that bin, placed into a roll-off bin, and then placed in the waste pile. It was reportedly routinely containerized and transported off-sit, although slag from the Revereratory Furnace was also used as feedstock for the Electric Furnace. The slag generated from both furnaces was stored in the "Raw Material Storage Area".

Physical Description: The former waste piles varied in configuration and location. The Hard Rubber Waste Pile consisted of a concrete three-sided open bin approximately 10 by 10 feet across and 8 feet high [the rubber was either disposed off-site or used as a fuel for the Reverberatory Furnace unit]. It was believed to have been installed in the early 1970's. There is no description for the Slag Waste Piles. The unit was started up in 1982 or 1983 according to the RFA, but slag had been generated since the Facility began operating in 1959. The Slag Waste Piles were active in 1987 at the time of the RFA. The FRMSA was excavated, with contaminated soils removed, backfill emplaced and surfaced with concrete in 1994. It sits within the Facility which is surrounded by a 6- to 10-foot security fence.

Maximum Capacity: Unknown

Waste Source: Spent batteries transported to the Facility; lead plates, grids, and other parts from the Battery Wrecker; polypropylene chips, hard rubber chips from the Battery Wrecker; lead sulphate mud from the sink/float tanks; and, lead slag from the Furnace units.

Waste Type: Broken lead battery components; chipped hard rubber and polypropylene casing pieces with adhered lead (dissolved or particulate), lead compounds, and acid; lead sulphate mud; lead slag.

RCRA Hazardous Waste Codes Corrosive waste (D002), D004, D006, lead compounds (D008), and possibly other hazardous waste codes in trace amounts.

3. OPERATING UNITS

a. **Container/Battery/Raw Materials Storage**

(1) Unit Name: Battery Storage Area [Unit #1].

Location: Directly adjacent (east) to the Battery Wrecker dock.

Activity Type: Container/Battery Storage.

Operation/Status: Operating/Active.

Activity Description: The Battery Storage Area is used to store lead acid batteries and other lead-bearing hazardous wastes. Batteries are sent to the Battery Wrecker and then to the Containment Building. Lead-bearing material is stored here until it is transported to the Containment Building for charging to the Reverberatory Furnace or directly to the Refining kettles. Periodically the area is resurfaced with asphalt. Occasionally, on-site generated wastes are stored in this area prior to shipment off-site.

Physical Description: The Battery Storage Area is a trapezoidal shaped area, approximately 190 feet in length by 69 feet wide at the north end and 30 feet wide at the south end. The pad is covered by up to six inches of asphalt and surrounded by a 3-6 inch berm. During rainfall or during periodic wash-down operations, a portable pump is used to collect liquids and pump them to the Water Treatment Plant.

Maximum Capacity: Approximately 72,000 cubic feet excluding aisle ways. This figure is based on an approximate surface area of 10,750 square feet and a storage height of 80 inches, the height of two pallets of 55-gallon drums stacked on top of each other.

Waste Source: Batteries and other lead-bearing hazardous wastes.

Waste Type: Lead acid batteries and other lead-bearing materials that include hazardous wastes.

RCRA Hazardous Waste Codes Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069) and possibly other hazardous waste codes in trace amounts.

(2) Unit Name: Containment Building/Batch House[Unit #2].

Location: Adjacent to the Furnace Department and the Refinery.

Activity Type: Storage of lead-bearing hazardous waste.

Operation/Status: Operating/active.

Activity Description: After batteries have been processed at the Battery Wrecker, the hazardous waste is stored in the Containment Building for charging to the Furnaces. Other lead bearing hazardous waste may also be stored in this building prior to being charged to the Furnaces or Refinery.

Physical Description: The Containment Building has a surface area of approximately 25, 800 square feet. The floor design is layered from top to bottom with a PVC liner, sand, reinforced concrete and a sacrificial layer of aggregate. The Containment Building was designed with reinforced concrete tilt walls equipped with steel plates on top of the walls to prevent intrusion of hazardous waste. The roof design is a steel frame with wood diaphragm and decking. The primary barrier is made of a sacrificial concrete surface that is designed with a slope to drain liquids to a main sump. Periodically this concrete surface may be replaced as it becomes worn. A sump pump transfers the collected liquids to the Wastewater Treatment Plant. The secondary barrier consists of the PVC liner that is anchored to the foundation and sloped to an inspection well. To prevent visible emissions, the Containment Building is equipped with three HEPA baghouses for general ventilation.

Maximum Capacity: The Containment Building has a calculated volume of 767,000 cubic feet.

Waste Source: The hazardous waste contained in this building is composed of Battery Wrecker material from lead acid batteries and lead-bearing hazardous waste from on and off-site sources.

Waste Type: Lead acid batteries and lead-bearing hazardous waste.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069), and possibly other hazardous waste codes in trace amounts.

b. **Furnaces**

(1) Unit Name: Reverberatory Furnace [Unit #3].

Location: East of the Refinery and south of the Containment Building.

Activity Type: Reclamation.

Operation/Status: Operating/active/optional.

Activity Description: This furnace receives lead-bearing materials from the Containment Building. Impurities may form a floating slag layer on top of the molten lead. The slag from the Reverberatory Furnace has a high lead content that is the primary feed to the Slag Reduction Furnace.

Physical Description: The Reverberatory Furnace is a horizontally oriented furnace constructed of refractory brick with an exterior frame support. The dimensions of this unit are approximately 34 - 40 feet in length, 8 - 12 feet in width, and 7 - 10 feet in height. Periodically the furnace is disassembled and the refractory brick replaced. Worn refractory bricks may be replaced in accordance with prudent furnace operating practices.

Maximum Capacity: Operating conditions of the Reverberatory furnace are governed by the facility's Regional Clean Air Incentives Market (RECLAIM) Permit, Exhibit 1.8-2 of the Operation Plan.

Waste Source: Rotary kiln.

Waste type: Battery wrecker hazardous waste (lead acid batteries) and lead-bearing material.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), secondary lead (K069, lead compounds (D008), and possibly other hazardous waste codes in trace amounts.

(2) Unit Name: Slag Reduction Furnace [Unit #4].

Location: Adjacent to the Reverberatory Furnace.

Activity Type: Reclamation.

Operation/Status: Operational/Active.

Activity Description: This furnace receives slag directly from the Reverberatory Furnace or as cold slag to be charged directly from the Containment Building. Impurities may form a floating slag layer on top of the kettles.

Physical Description: The Slag Reduction Furnace is equipped with three electric resistance electrodes. This furnace is constructed of refractory brick. Its approximate dimensions are 18 - 23 feet in length, 10 - 12 feet in width, and 10 - 12 feet in height. Periodically the furnace is disassembled and the refractory brick replaced. Worn refractory bricks may be replaced in accordance with prudent operating practices.

Maximum Capacity: Operating conditions of the Reverberatory Furnace are governed by the facility RECLAIM Permit, Exhibit 1.8-2 of the Operation Plan.

Waste Source: Reverberatory Furnace and Containment Building.

Waste type: Reverberatory Furnace slag and lead-bearing hazardous waste.

RCRA Hazardous Waste Code: Corrosive waste (D002) ,arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

d. **Battery Wrecker**

(1) Unit Name: Yard Sump Tank. [Unit #YS-1].

Location: Raw Material Storage Area.

Activity Type: Storage .

Operation/Status: Operating/active.

Activity Description: This tank collects stormwater run-off and wash-down waters from process and raw material (reagents) storage areas and transfers them by pump through above-ground piping to TK-103 to the Wastewater Treatment Plant.
Physical Description: The tank is constructed of stainless steel and measures 10 feet in diameter by 9 feet in height. The tank is equipped with a level control alarm and has secondary containment.

Maximum Capacity: 5,288 gallons.

Waste Source: Raw Material Storage Areas and adjacent process areas.

Waste type: Stormwater run-off and wash-down waters.

RCRA Hazardous Waste Code: Lead compounds (D008).

(2) Unit Name: Wrecker Sink Float Tank [Unit WSF-1]

Location: Battery Wrecker.

Activity Type: Treatment.

Operation/Status: Operating/active.

Activity Description: Batteries are crushed in the Battery Wrecker, which drops the material into the sink/float tank unit (WSF-1). The purpose of this tank is to gravimetrically separate the plastic, battery acid and metal components. The plastic is washed and pneumatically transferred into trailers for recycling off-site. The battery acid is transferred by pipe directly to the Battery Wrecker Sump (WS-1). The battery components are conveyed by closed screw auger to the Containment Building for storage prior to being fed to the Reverberatory Furnace.

Physical Description: This tank is constructed of stainless steel and is 6.5 feet in height, 2 feet wide and 8 feet in length. The clarifier tank is equipped with a manual cut-off valve and the area is sloped to drain to the battery wrecker sump.

Maximum Capacity: 2,100 gallons.

Waste Source: Battery Wrecker.

Waste type: Battery components.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), Cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

(3) Unit Name: Repulp Tank [RT-1].

Location: Battery wrecker.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This treatment unit collects liquids from the Containment Building and transfers the sludge via aboveground pipe to the filter press units in the Batch House for de-watering.

Physical Description: This stainless steel tank is 11 feet in diameter and 9 feet in height. This tank is equipped with a manual cut-off and overflows to the battery wrecker sump.

Maximum Capacity: 6,398 gallons.

Waste Source: Battery Wrecker.

Waste type: Battery components.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

(4) Unit Name: Reactor Tank 1 [Unit DR-1].

Location: Battery Wrecker.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This tank is used to provide back-up service to the Reactor Tank 3 unit (DR-3). It receives the battery wrecker mud from the clarifier and mixes it with the wrecker material which has been neutralized in the Reactor Tank 2 unit, DR-2. The material is then transferred via pump and above-ground pipe to the Battery Wrecker filter press for dewatering.

Physical Description: This stainless steel tank is 6 feet in diameter and 8 feet high. It is equipped with a manual cut-off valve and is designed to drain to the battery wrecker sump.

Maximum Capacity: 1,489 gallons.

Waste Source: Battery Wrecker.

Waste Type: Battery components.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

(5) Unit Name: Reactor Tank 2 [Unit DR-2].

Location: Within the Battery Wrecker.

Activity Type: Treatment.

Operation/Status: Operating/active/optional.

Activity Description: This treatment unit is used to add a base slurry to neutralize the paste from lead acid batteries. The material is then transferred by pump and above-ground pipe to Battery Wrecker filter press for de-watering.

Physical Description: This stainless steel tank is 6 feet in diameter and 8 feet in height.

Maximum Capacity: 1,676 gallons.

Waste Source: Battery Wrecker.

Waste Type: Battery paste.

RCRA Hazardous Waste Code: Corrosive waste (D002) and lead compounds (D008).

(5) Unit Name: Reactor Tank 3 [Unit DR-3].

Location: Within the Battery Wrecker.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This treatment unit is used to add base slurry to neutralize the paste from lead acid batteries. The material is then transferred by above-ground pipe to the Reactor Tank 2 unit (DR-2) for further neutralization.

Physical Description: This stainless steel tank is 6 feet in diameter and 8 feet high.

Maximum Capacity: 2,538 gallons.

Waste Source: Reactor Tank 2 (DR-2).

Waste Type: Battery paste.

RCRA Hazardous Waste Code: Corrosive waste (D002) and lead compounds (D008).

(6) Unit Name: Low pH Transfer Tank [Unit TT-1].

Location: Within the Battery Wrecker.

Activity type: Waste storage.

Operation/Status: Operating/active.

Activity Description: This tank receives acid from the Battery Wrecker Clarifier I unit (WC-1). The acid is transferred via aboveground pipe to the Tank unit (TK-14-IT) in the Wastewater Treatment Plant.

Physical Description: This stainless steel tank is 6 feet in diameter and 6 feet in height. It is equipped with a level controller set to 4 feet and will overflow to the Battery Wrecker Sump (WS-1).

Maximum Capacity: 1,269 gallons.

Waste Source: Battery Wrecker.

Waste Type: Waste battery liquids.

RCRA Hazardous Waste Code: Waste corrosive (D002) and lead components (D008).

(7) Unit Name: High pH Transfer Tank.

Location: Within the Battery Wrecker.

Activity type: Waste storage.

Operation/Status: Operating/active.

Activity Description: This tank receives the liquid effluent from the de-watering presses. The liquid is transferred via above-ground pipe to TK-103 at the Wastewater Treatment Plant.

Physical Description: This stainless steel tank is 6 feet in diameter and 6 feet in height. It is equipped with a level controller set to 4 feet.

Maximum Capacity: 1,269 gallons.

Waste Source: Battery Wrecker.

Waste Type: Neutralized battery acid and sodium sulfate.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

(8) Unit Name: Battery Wrecker Clarifier [Unit WC-1].

Location: Within the Battery Wrecker.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This tank receives the acid from the battery breaking process via above-ground pipe. The solid materials are settled out in this tank unit. The solids are pumped via above-ground pipe to the Battery Wrecker filter press for de-watering. The acid is transferred by gravity feed via above-ground pipe to Tank TT-1.

Physical Description: This stainless steel tank measures 12 feet in diameter and 12.5 feet in height on the conical section and 12 feet in diameter and 10 inches in height on the straight section. This tank will overflow to Tank TT-1.

Maximum Capacity: 3,751 gallons.

Waste Source: Battery Wrecker.

Waste Type: Waste battery acid.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

(9) Unit Name: Battery Wrecker Sump [Unit WS-1].

Location: Within the Battery Wrecker.
Activity Type: Waste storage.

Operation/Status: Operating/active.

Activity Description: The liquids derived from the Battery Wrecker processes are collected in this sump. The liquids are transferred by pump via above-ground pipe to the Battery Wrecker Clarifier unit (WC-1).

Physical Description: This double walled stainless steel tank measures 9.5 feet in diameter and 4 feet in height. It is equipped with a leak detection monitor and level controller.

Maximum Capacity: 2,121 gallons.

Waste Source: Battery Wrecker.

Waste Type: Battery acids and other process liquids.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

(10) Unit Name: Primary Plastic Sink/ Float Tank [Unit PSF-1].

Location: Battery Wrecker.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This treatment unit further separates heavy components from the crushed plastic and diverts them to the Containment Building via a closed auger system. The plastic is gravity fed to Tank PSF-2.

Physical Description: The tank is aboveground, stainless steel, rectangular tank. Approximate dimensions are 9.5 feet long, 3 feet wide and 3 feet 10 inches in height. This area is sloped to deposit liquids to the Battery Wrecker sump. It is set within secondary containment on a concrete slab. Collected liquids in the tank are pumped out.

Maximum Capacity: 450 gallons.

Waste Source: WSF-1.

Waste Type: Battery components, including plastic.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

(11) Unit Name: Secondary Plastic Sink/Float Tank.

Location: Battery Wrecker.

Activity Type: Waste treatment.
Operation/Status: Operating/active.

Activity Description: This treatment unit removes the remaining non-plastic solids. The remaining battery components are transferred to the Containment Building by closed augers. The plastic is washed across a shaker screen and then blown pneumatically through above-ground pipe to trailers for shipment.

Physical Description: Tank is aboveground, stainless steel. It is rectangular with approximate dimensions of 7 feet in length, 3 feet in width and 9 feet in height. It is located in an area sloped to the Battery Wrecker Sump . It is set within secondary containment.

Maximum Capacity: 450 gallons.

Waste Source: PSF-1.

Waste Type: Plastic and Battery components.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069, and possibly other hazardous waste codes in trace amounts.

e. **Waste Water Treatment Plant**

(1) Unit Name: Oxidation Tank 100 [Unit TK-100].

Location: Water Treatment Plant.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This treatment unit receives scrubber effluent, which is oxidized to reduce the sulfites in the liquid. This liquid is then pumped through above-ground pipe to Oxidation Tank 101.

Physical Description: The tank is above ground, stainless steel, approximately 16 feet in diameter and 30 feet in height.

Maximum Capacity: 40,609 gallons.

Waste Source: Air pollution control equipment.

Waste Type: Scrubber effluent.

RCRA Hazardous Waste Code: Corrosive waste (D002), secondary lead (K069), and lead compounds (D008), possibly other hazardous waste codes in trace amounts.

(2) Unit Name: Oxidation Tank 101 [Unit TK-101].

Location: Water Treatment Plant.

Activity Type: Waste treatment.

Operation/Status: Operating/active.
Activity Description: This treatment unit receives scrubber effluent, which is oxidized to reduce the sulfites in the liquid. This liquid is then pumped through above-ground pipe to Oxidation Tank 102.

Physical Description: The tank is stainless steel and is approximately 16 feet in diameter and 30 feet in height. It is installed vertically above ground within secondary containment.

Maximum Capacity: 40,609 gallons.

Waste Source: Air pollution control equipment.

Waste Type: Scrubber effluent.

RCRA Hazardous Waste Code: Corrosive waste (D002), secondary lead (K069, and lead compounds (D008), possibly other hazardous waste codes in trace amounts.

(3) Unit Name: Oxidation Tank 102 [Unit TK-102].

Location: Water Treatment Plant.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This treatment unit receives scrubber effluent, which is oxidized to reduce the sulfites in the liquid. This liquid is then pumped through above-ground pipe to Equalization Tank 103.

Physical Description: The tank is stainless steel and is approximately 16 feet in diameter and 30 feet in height. It is installed vertically above ground within secondary containment.

Maximum Capacity: 40,609 gallons.

Waste Source: Air pollution control equipment.

Waste Type: Scrubber effluent.

RCRA Hazardous Waste Code: Corrosive waste (D002), secondary lead (K069), and lead compounds (D008), possibly other hazardous waste codes in trace amounts.

(4) Unit Name: Equalization Tank. [Unit TK-103].

Location: Water Treatment Plant.

Activity Type: Waste treatment.

Operation/Status: Operating/active.

Activity Description: This treatment unit receives and mixes liquids collected by the WS-1, TK-102, YS-1, and RS-A. The liquids are then pumped through above-ground hard piping to TK-1.

Physical Description: Tank is aboveground, stainless steel and approximately 30 feet in diameter and 27 feet in height.

Maximum Capacity: 134,835 gallons.

Waste Source: Battery Wrecker Sump (WS-1).

Waste Type: Battery acid.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069), and possibly other hazardous waste codes in trace amounts.

(5) Unit Name: Storm-water Tank 104 [Unit TK-104].

Location: Water Treatment Plant.

Activity Type: Waste storage.

Operation/Status: Operating/active.

Activity Description This tank receives collected surface run-on/run-off and wash-down waters (RS-A) from the process areas of the Facility and transfers them by pump via above-ground hard piping to TK-103.

Physical Description: Tank is aboveground, single-walled steel. Approximate dimensions are 50 feet in diameter and 27 feet in height. It is set within secondary containment. The tank is connected by pipe to TK-103.

Maximum Capacity: 374,543 gallons.

Waste Source: Fugitive sources.

Waste Type: Rainwater and facility wash-down waters.

RCRA Hazardous Waste Code: Lead- compounds (D008).

(6) Unit Name: Storm-water Tank 105 [Unit TK-105].

Location: Water Treatment Plant

Activity Type: Waste storage.

Operation/Status: Operating/active.

Activity Description: This tank receives collected surface run-on/run-off and wash-down waters from the process areas of the Facility (RS-A) and transfers them by pump via above-ground hard piping to TK-103..

Physical Description: Tank is aboveground, and stainless steel. Approximate dimensions are 50 feet in diameter and 27 feet in height. The tank is set within secondary containment.

Maximum Capacity: 374,543 gallons.

Waste Source: Fugitive sources.

Waste Type: Rainwater and facility wash-down waters.

RCRA Hazardous Waste Code: Lead compounds (D008).

(7) Unit Name: Transfer Tank 17 [Unit TK-17-TT].

Location: Water Treatment Plant.

Activity Type: Storage.

Operation/Status: Operating/active.

Activity Description: Receives liquid from the Low pH Tank, TT-1, at the Battery Wrecker and transfers the liquid via above-ground pipes to Clarifier C-2B or Equalization Tank TK-103.

Physical Description: Tank is aboveground, stainless steel. Approximate dimensions are 10 feet-4 inches in diameter and is 12 feet in height.. The tank is set within secondary containment.. The tank is connected to Transfer Tank TK-12 by above-ground pipe.

Maximum Capacity: 6,700 gallons.

Waste Source: Battery Wrecker.

Waste Type: Battery acid.

RCRA Hazardous Waste Code: Corrosive waste (D002), arsenic (D004), cadmium (D006), lead compounds (D008), secondary lead (K069), and possibly other hazardous waste codes in trace amounts.

(8) Unit Name: Transfer Tank 12 [Unit TK-12-TT].

Location: Water Treatment Plant.

Activity Type: Waste storage.

Operation/Status: Operating/active.

Activity Description: This tank receives liquid from clarifier C2-B and transfers them via above-ground pipes to the Equalization Tank, TK-103.

Physical Description: Tank is aboveground, fiberglass reinforced plastic (FRP). Approximate dimensions are 10 feet-4 inches in diameter and 16 feet in height. It is equipped with a level controller and set within secondary containment.

Maximum Capacity: 9,973 gallons.

Waste Source: TK-12-TT.

Waste Type: Acid.

RCRA Hazardous Waste Code: Corrosive waste (D002) and lead compounds (D008)

(9) Unit Name: Transfer Tank 13 [Unit TK-13-TT].

Location: Wastewater Treatment Plant.

Activity Type: Storage.

Operation/Status: Operational/Active.

Activity Description: This tank is used to store either clarified battery acid from the Battery Wrecker or industrial grade sulfuric acid for use in the Reactor Tanks 1 through 5 via above-ground pipes.

Physical Description: This FRP tank is 10 feet, 4 inches in diameter and is 10 feet in height.

Maximum Capacity: 6,233 gallons.

Waste Source: Battery acid.

Waste Type: Battery Wrecker.

RCRA Hazardous Waste Number: Corrosive waste (D002) and lead compounds (D008).

(10) Unit Name: Yard Sump Tank [Unit RS-A].

Location: Wastewater Treatment Plant.

Activity Type: Storage.

Operation/Status: Operational/Active.

Activity Description: The underground sump tank receives run-on/run-off and wash-down waters. A pump then transfers the liquids through above-ground pipes to TK-103, TK-104, or TK 105 for processing at the Wastewater Treatment Plant.

Physical Description: This tank is constructed of stainless steel and measures 9 feet, 4 inches in diameter, is 10 feet in height and equipped with a level controller.

Maximum Capacity: 4, 655 gallons.

Waste Source: Plant wash-down or rain water.

Waste Type: Fugitive lead particulates or residual dissolved-phase lead.

RCRA Hazardous Waste Number: Lead compounds (D008).

(11) Unit Name: Reactor Tank 1 [TK-1].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives the liquid from TK-103 and a basic solution and ferric sulfate is added to precipitate metals. This solution overflows via above-ground pipes to TK-2.

Physical Description: This FRP tank measures 12 feet in diameter and is 14 feet, 8 inches in height.

Maximum Capacity: 10,575 gallons.

Waste Source: TK-103.

Waste Type: Battery acid.

RCRA Hazardous Waste Number: Corrosive waste (D002) and lead compounds (D008).

(12) Unit Name: Reactor Tank 2 [Unit TK-2].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives the liquid from TK-103 and a basic solution and ferric sulfate is added to precipitate metals. This solution overflows to TK-3 via above-ground pipes.

Physical Description: This FRP tank measures 12 feet in diameter and is 14 feet in height.

Maximum Capacity: 10,575 gallons.

Waste Source: TK-103.

Waste Type: Battery acid.

RCRA Hazardous Waste Number: Corrosive waste (D002) and lead compounds (D008)

(13) Unit Name: Reactor Tank 3 [Unit TK-3].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives the liquid from TK-2 and a basic solution and ferric sulfate is added to precipitate metals. This solution overflows via above-ground pipes to TK-4.

Physical Description: This FRP tank measures 12 feet in diameter and is 14 feet, 8 inches in height.

Maximum Capacity: 10,575 gallons.

Waste Source: TK-103.

Waste Type: Battery Acid.

RCRA Hazardous Waste Number: Lead compounds (D008).

(14) Unit Name: Reactor Tank 4 [Unit TK-4].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives the liquid from TK-3 and a basic solution and ferric sulfate is added to precipitate metals. This solution overflows via above-ground pipes to TK-5.

Physical Description: This FRP tank measures 12 feet in diameter and is 14 feet in height.

Maximum Capacity: 10,575 gallons.

Waste Source: TK-103.

Waste Type: Battery Acid

RCRA Hazardous Waste Number: Corrosive waste (D002) and lead compounds (D008).

(15) Unit Name: Reactor Tank 5 [Unit TK-5].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives liquids from TK-4 Liquids from this fifth stage of the precipitation process are transferred to the wastewater treatment plant clarifiers, C1-A, C1-B, and C2-A via above-ground pipes.

Physical Description: This FRP tank measures 10 feet in diameter and is 10 feet in height.

Maximum Capacity: 5,288 gallons.

Waste Source: TK-103.

Waste Type: Trace metals.

RCRA Hazardous Waste Number: Lead compounds (D008).

(16) Unit Name: East Product Solution Tank [Unit P-E].

Location: Wastewater Treatment Plant.

Activity Type: Storage.

Operation/Status: Operational/Active.

Activity Description: This tank receives the filter water from the sand filters. If the liquids are in conformance with the LACSD wastewater discharge permit they are discharged via the flume, if they are not the liquids are transferred back to TK-103 via above-ground pipes for additional treatment.

Physical Description: This stainless steel tank is 16 feet in diameter, 24 feet in height and equipped with a level control alarm.

Maximum Capacity: 36, 097 gallons.

Waste Source: Sand Filters.

Waste Type: Non-hazardous.

RCRA Hazardous Waste Number: N/A

(17) Unit Name: West Product Solution Tank [Unit P-W].

Location: Wastewater Treatment Plant.

Activity Type: Storage.

Operation/Status: Operational/Active.

Activity Description: This tank receives the filter water from the sand filters. If the liquids are in conformance with the LACSD wastewater discharge permit they are discharged via the flume, if they are not the liquids are transferred back to TK-103 via above-ground pipes for additional treatment.

Physical Description: This stainless steel tank is 16 feet in diameter, 24 feet in height and equipped with a level control alarm.

Maximum Capacity: 36, 097 gallons.

Waste Source: Sand filters.

Waste Type: Non-hazardous.

RCRA Hazardous Waste Number: N/A

(18) Unit Name: Sand Filter A [Unit S-A].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: Liquids from the Sand Filter Feed Tank (TK-4-IT) are transferred via above-ground pipes to the sand filters to remove suspended solids. Treated liquids are transferred via above-ground pipes to the Product Solution Tanks P-E and P-W.

Physical Description: This coated steel tank is 4 feet in diameter and is 5 feet in height.

Maximum Capacity: 470 gallons.

Waste Source: TK-4-IT.

Waste Type: Lead and other metals.

RCRA Hazardous Waste Number: Lead compounds (D008)

(19) Unit Name: Sand Filter B [Unit S-B].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: Liquids from the Sand Filter Feed Tank (TK-4-IT) are transferred to the sand filters via above-ground pipes to remove suspended solids. Treated liquids are transferred via above-ground pipes to the Product Solution Tanks P-E and P-W.

Physical Description: This coated steel tank is 4 feet in diameter and is 5 feet in height.

Maximum Capacity: 470 gallons.

Waste Source: TK-4-IT.

Waste Type: Lead and other metals.

RCRA Hazardous Waste Number: Lead compounds (D008).

(20) Unit Name: Sand Filter C [Unit S-C].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: Liquids from the Sand Filter Feed Tank (TK-4-IT) are transferred to the sand filters via above-ground pipes to remove suspended solids. Treated liquids are transferred via above-ground pipes to the Product Solution Tanks P-E and P-W.

Physical Description: This coated steel tank is 4 feet in diameter and is 5 feet in height.

Maximum Capacity: 470 gallons.

Waste Source: TK-4-IT.

Waste Type: Lead and other metals.
RCRA Hazardous Waste Number: Lead compounds (D008).

(21) Unit Name: Sand Filter D [Unit S-D.

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: Liquids from the Sand Filter Feed Tank (TK-4-IT) are transferred to the sand filters via above-ground pipes to remove suspended solids. Treated liquids are transferred via above-ground pipes to the Product Solution Tanks P-E and P-W.

Physical Description: This coated steel tank is 4 feet in diameter and is 5 feet in height.

Maximum Capacity: 470 gallons.

Waste Source: TK-4-IT.

Waste Type: Lead and other metals.

RCRA Hazardous Waste Number: Lead compounds (D008).

(22) Unit Name: Sand Filter Feed Tank [Unit TK-4-IT].

Location: Wastewater Treatment Plant.

Activity Type: Storage.

Operation/Status: Operational/Active.

Activity Description: This tank receives the liquids from the waste water clarifiers C1-A, C1-B, and C2-A. The liquid is transferred by pump via above-ground pipes to the sand filters S-A, S-B, S-C and S-D.

Physical Description: This FRP tank is 10 feet, 4 inches in diameter and 10 feet in height.

Maximum Capacity: 5,640 gallons.

Waste Source: Wastewater Treatment Plant Clarifiers.

Waste Type: Lead and other metals.

RCRA Hazardous Waste Number: Lead compounds (D008).

(23) Unit Name: East Ferric [Unit TK-11-IT].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Inactive.
Activity Description: Inactive.

Physical Description: This FRP tank is 5 feet in diameter, 5 feet in height and is equipped with a level controller.

Maximum Capacity: 734 gallons.

Waste Source: None.

Waste Type: None.

RCRA Hazardous Waste Number: None.

(24) Unit Name: West Ferric [Unit TK-8-IT].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Inactive.

Activity Description: Inactive.

Physical Description: This FRP tank is 5 feet in diameter, 5 feet in height and is equipped with a level controller.

Maximum Capacity: 734 gallons.

Waste Source: None.

Waste Type: None.

RCRA Hazardous Waste Number: None.

(25) Unit Name: Clarifier 1A [Unit C-1A].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives the water from Reactor Tank TK-5 to settle out the solids. Treated liquids are transferred to Sand Filter Feed Tank, TK-4-IT via above-ground pipes.

Physical Description: The cylindrical section of the stainless steel tank is 12 feet in diameter and 9.5 feet in height. The conical section measures 12 feet in diameter at the top and 9.5 feet in height.

Maximum Capacity: 10,716 gallons.

Waste Source: TK-5.

Waste Type: Trace metals.
RCRA Hazardous Waste Number: Lead compounds (D008).

(26) Unit Name: Clarifier 1B [Unit C-1B].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives the water from Reactor Tank TK-5 to settle out the solids prior to transferring the liquids to Sand Filter Feed Tank, TK-4-IT via above-ground pipes.

Physical Description: The cylindrical section of the stainless steel tank is 12 feet in diameter and 9.5 feet in height. The conical section measures 12 feet in diameter at the top and 9.5 feet in height.

Maximum Capacity: 10,716 gallons.

Waste Source: TK-5.

Waste Type: Trace metals.

RCRA Hazardous Waste Number: Lead compounds (D008).

(27) Unit Name: Clarifier 2A [Unit C-2A].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.

Operation/Status: Operational/Active.

Activity Description: This tank receives the water from Reactor Tank TK-5 via above-ground pipe to settle out the solids. Treated liquids are transferred to Sand Filter Feed Tank TK-4-IT via above-ground pipe.

Physical Description: The cylindrical section of the stainless steel tank is 12 feet in diameter and 9.5 feet in height. The conical section measures 12 feet in diameter at the top and 9.5 feet in height.

Maximum Capacity: 10,716 gallons.

Waste Source: TK-5.

Waste Type: Trace metals.

RCRA Hazardous Waste Number: Lead compounds (D008).

(28) Unit Name: Clarifier 2B [Unit C-2B].

Location: Wastewater Treatment Plant.

Activity Type: Treatment.
Operation/Status: Operational/Active.

Activity Description: This tank receives the water from Reactor Tank TK-17 and settles out the solids. Treated liquids are transferred to Sand Filter Feed Tank, TK-4-IT, via above-ground pipe.

Physical Description: The cylindrical section of the stainless steel tank is 12 feet in diameter and 9.5 feet in height. The conical section measures 12 feet in diameter at the top and 9.5 feet in height.

Maximum Capacity: 10,716 gallons.

Waste Source: TK-5.

Waste Type: Lead and other metals.

RCRA Hazardous Waste Number: Lead compounds (D008).

APPENDIX C

HEALTH RISK ASSESSMENT

HUMAN HEALTH RISK ASSESSMENT
IN SUPPORT OF THE
RCRA PART B PERMIT
FOR QUEMETCO, INC.
CITY OF INDUSTRY, CALIFORNIA

REVISION 1

Project No. 58-7122-01/002

September 29, 2000

Report Prepared for:

California Environmental Protection Agency
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201

HUMAN HEALTH RISK ASSESSMENT
IN SUPPORT OF THE RCRA PART B PERMIT FOR QUEMETCO, INC.
CITY OF INDUSTRY, CALIFORNIA

REVISION 1

Kleinfelder Project No. 58-7122-01/002

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September 29, 2000

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EXECUTIVE SUMMARY

This revised report documents the results of the human health risk assessment (HHRA) conducted in support of the Resource, Conservation, and Recovery Act (RCRA) Part B operating permit application by Quemetco, Inc. This report is a revision and replacement of Kleinfelder's July 23, 1999 HHRA report (Kleinfelder 1999). Analyses documented in the July 23, 1999 HHRA report were performed in accordance with a workplan which was approved by the California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control (DTSC) on January 9, 1997 (Kleinfelder 1996; Cal-EPA 1997). Analyses documented in this revised report were modified in response to the following comments issued by DTSC on February 3, 2000 regarding the July 23, 1999 HHRA report (Cal-EPA 2000):

- Ground level concentrations (GLCs) of chemicals of potential concern (COPCs) emitted from the facility should be estimated using the Industrial Source Complex Short Term, Version 3 (ISCST3) model in Complex 1 screening mode to evaluate dispersion of contaminants in areas of elevated terrain (i.e., Complex Terrain, or terrain having a ground level elevation higher than the exhaust stack height).

  Note: Analyses documented in the July 23, 1999 HHRA report were based on GLCs of COPCs estimated using the ISCST3 model in Simple Terrain mode (i.e., assuming all terrain in the modeling analysis is flat with respect to the exhaust stack). In response to this comment issued by DTSC, GLCs for the revised analyses were recalculated using the ISCST3 model in Complex 1 screening mode.

- Recently released results of source testing for hexavalent chromium should be used in the revised HHRA.

  Note: Analyses documented in this revised HHRA report were based on source testing results released on July 18, 2000 (World Environmental 2000). As a result, this revised HHRA report is based on revised stack emissions test data for arsenic, beryllium, cadmium, hexavalent chromium, copper, lead, manganese, nickel, selenium, silver, and zinc. In addition, errors in calculation of Slag Furnace stack emission rates of acetaldehyde, benzene, 1,3-butadiene, formaldehyde, naphthalene, and polynuclear aromatic hydrocarbons (PAHs) have been corrected in this revised HHRA report. Also, toxicity criteria have been updated to include current values released by the California Environmental Protection Agency (Cal-EPA), Office of Environmental Health Hazard Assessment (OEHHA).

Air dispersion modeling was performed using the ISCST3 model to estimate annual average GLCs of COPCs emitted from the facility at specified off-site receptor locations within a 13-

square kilometer area. As noted in the preceding discussion, in response to DTSC comments on Kleinfelder's July 1999 HHRA, air dispersion modeling was performed using actual terrain heights at each receptor location. Using the GLCs estimated by modeling, cancer risk and chronic hazard indices were calculated at the receptor locations for resident child, resident adult, and industrial worker exposure scenarios. The location of the maximum exposed individual (MEI) was identified; the universal transverse mercator (UTM; easting/northing) coordinates are 409500, 3765300. However, because residents do not actually reside at this MEI location, it is referred to as the "hypothetical resident" MEI location. Therefore, the receptor of highest cancer risk/chronic effects in an actual residential area was also identified as the "actual resident" MEI location; the UTM coordinates are 409000, 3764900.

The MEI locations are illustrated on Plate ES-1. The industrial worker and hypothetical resident MEI is located approximately 300 feet north of the facility fenceline; no residences are near this location. The actual resident MEI is located approximately 1,000 feet southwest of the facility fenceline.

As a comparison, separate air dispersion modeling analyses were performed assuming flat terrain conditions (i.e., as performed in preparation of Kleinfelder's July 1999 HHRA). The results of these comparative analyses are documented in Section 5 of this revised report.

Evaluation of Cancer Risk and Chronic Noncarcinogenic Health Effects

At the MEI locations, the excess lifetime cancer risk and chronic hazard indices for the hypothetical resident child and adult, actual resident child and adult, and industrial worker are summarized below:

Table ES-1
Summary of Excess Lifetime Cancer Risk and Chronic Hazard Indices at the MEI Locations – Complex Terrain

Receptor Type	Excess Lifetime Cancer Risk	Chronic Hazard Index
Hypothetical Resident Child	--*	1.19
Hypothetical Resident Adult	5×10^{-5}	1.63
Actual Resident Child	--	0.70
Actual Resident Adult	2×10^{-5}	0.97
Industrial Worker	2×10^{-5}	0.25

Note: * - - Currently available risk thresholds do not address child exposure. Therefore, cancer risk due to exposure during the first six years of life (child exposure) is added to the adult risk due to exposure over 24 years, for a total adult exposure duration of 30 years.

Exposure to lead accounts for 43 percent (12 percent due to inhalation, and 29 percent due to ingestion of produce) of chronic hazard to the hypothetical resident child MEI. Plate ES-2 illustrates the extent of the area in which the resident child hazard index, summed across all chemicals, exceeds a value of 1.0. In addition to summing HIs across all chemicals, hypothetical resident child HIs for each chemical were segregated and summed by target organ systems, as shown in Table ES-2. Organ specific HIs ranged from 0.09 for skin to 0.9 for CNS / PNS. Although the hypothetical resident child HI exceeds 1.0 when summed across all chemicals, when segregated and summed by target organ systems the hypothetical resident child HI does not exceed 1.0. In addition, the actual resident child HI summed across all chemicals is 0.70. Therefore, adverse health effects to hypothetical and actual residential children are not likely to result from exposure to facility emissions.

Inhalation of hexavalent chromium accounts for between approximately 23 percent (i.e., actual resident) and 50 percent (i.e., hypothetical resident) of the total cancer risk to the resident adult MEI. Actual and hypothetical resident adult MEI cancer risk are both within the U.S. EPA National Contingency Plan's generally acceptable range of upper-bound lifetime cancer risk (i.e., 1×10^{-4} to 1×10^{-6}). Plate ES-3 depicts the cancer risk isopleth for resident adult exposure.

Exposure to lead accounts for 41 percent (13 percent due to inhalation, and 25 percent due to ingestion of produce) of chronic hazard to the hypothetical resident adult MEI. Plate ES-4 illustrates the extent of the area in which the resident adult hazard index, summed across all chemicals, exceeds a value of 1.0. As for the hypothetical resident child, HIs were segregated and summed by target organ system as shown in Table ES-3. Organ specific HIs ranged from 0.13 for skin and 1.2 for the CNS / PNS. However, adverse health effects to actual residential adults are not likely to result from exposure to facility emissions, because the actual resident adult MEI HI is 0.97, which is less than 1.0.

Inhalation of hexavalent chromium accounts for 53 percent of the total cancer risk to the industrial worker MEI. Plate ES-5 depicts the cancer risk isopleth for industrial worker exposure. Exposure to lead accounts for 28 percent (17 percent due to inhalation, and 9 percent due to ingestion of soil) of chronic hazard to the industrial worker MEI chronic hazard index.

Table ES-2
Summary of Chronic Hazard Index Results by Organ System[1]
Hypothetical Resident Child MEI[2] – Complex Terrain

	Affected Organ System							
Chemical	**CV/BL[3]**	**CNS/PNS[4]**	**Immun[5]**	**Kidn[6]**	**GI/LV[7]**	**Repro[8]**	**Resp[9]**	**Skin**
Acetaldehyde							2.8E-03	
Acrolein							1.5E-03	
Antimony	2.6E-02			2.6E-02	2.6E-02	2.6E-02	2.6E-02	
Arsenic		2.1E-02					2.1E-02	2.1E-02
Benzene		7.1E-03						
Beryllium							3.5E-03	
Cadmium				3.5E-02			3.5E-02	
Chromium (hexavalent)				9.1E-02	9.1E-02		9.1E-02	
Copper							5.6E-03	
1.4-Dioxane					2.4E-05		2.4E-05	
Formaldehyde							4.3E-03	
Hydrogen sulfide		9.4E-02						
Lead	5.1E-01	5.1E-01	5.1E-01	5.1E-01		5.1E-01		
Manganese		1.9E-01					1.9E-01	
Mercury	7.4E-02	7.4E-02		7.4E-02	7.4E-02		7.4E-02	
Naphthalene	3.7E-03							
Nickel			2.9E-02	2.9E-02			2.9E-02	
PAHs			1.6E-05		1.6E-05	1.6E-05		
Propylene		5.1E-04		5.1E-04	5.1E-04	5.1E-04	5.1E-04	5.1E-04
Selenium							8.6E-03	
TCDD total			7.1E-02		7.1E-02	7.1E-02		7.1E-02
Toluene		1.0E-06				1.0E-06		
Xylenes						8.0E-07	8.0E-07	
Zinc	1.2E-02						1.2E-02	
HI[9] by Organ System	0.63	0.90	0.61	0.77	0.26	0.61	0.50	0.09

Notes:

[1] – Source for target organ systems are CAPCOA 1993, IRIS, and Klassen, et al. 1986

[2] – Maximum exposed individual

[3] – Cardiovascular or blood system

[4] – Central or peripheral nervous system

[5] – Immune system

[6] – Kidney

[7] – Gastrointestinal system and liver

[8] – Reproductive system

[9] – Respiratory system

[10] – Hazard index is the sum of chemical hazard quotients (from Table 10) for each organ system

Blank cells indicate chemical does not affect that organ system

Table ES-3
Summary of Chronic Hazard Index Results by Organ System[1]
Hypothetical Resident Adult MEI[2] – Complex Terrain

	Affected Organ System							
Chemical	**CV/BL[3]**	**CNS/PNS[4]**	**Immun[5]**	**Kidn[6]**	**GI/LV[7]**	**Repro[8]**	**Resp[9]**	**Skin**
Acetaldehyde							4.0E-03	
Acrolein							2.2E-03	
Antimony	3.7E-02			3.7E-02	3.7E-02	3.7E-02	3.7E-02	
Arsenic		2.9E-02					2.9E-02	2.9E-02
Benzene		1.0E-02						
Beryllium							5.0E-03	
Cadmium				5.1E-02			5.1E-02	
Chromium (hexavalent)				1.3E-01	1.3E-01		1.3E-01	
Copper							8.1E-03	
1.4-Dioxane					3.4E-05		3.4E-05	
Formaldehyde							6.1E-03	
Hydrogen sulfide		1.3E-01						
Lead	6.7E-01	6.7E-01	6.7E-01	6.7E-01		6.7E-01		
Manganese		2.7E-01					2.7E-01	
Mercury	1.1E-01	1.1E-01		1.1E-01	1.1E-01		1.1E-01	
Naphthalene	5.2E-03							
Nickel			4.1E-02	4.1E-02			4.1E-02	
PAHs			1.7E-05		1.7E-05	1.7E-05		
Propylene		6.3E-04		6.3E-04	6.3E-04	6.3E-04	6.3E-04	6.3E-04
Selenium							1.2E-02	
TCDD total			9.9E-02		9.9E-02	9.9E-02		9.9E-02
Toluene		1.5E-06				1.5E-06		
Xylenes						1.1E-06	1.1E-06	
Zinc	1.8E-02						1.8E-02	
HI[9] by Organ System	0.84	1.22	0.81	1.04	0.37	0.81	0.71	0.13

Notes:

[1] – Source for target organ systems are CAPCOA 1993, IRIS, and Klassen, et al. 1986

[2] – Maximum exposed individual

[3] – Cardiovascular or blood system

[4] – Central or peripheral nervous system

[5] – Immune system

[6] – Kidney

[7] – Gastrointestinal system and liver

[8] – Reproductive system

[9] – Respiratory system

[10] – Hazard index is the sum of chemical hazard quotients (from Table 10) for each organ system

Blank cells indicate chemical does not affect that organ system

Evaluation of Blood Lead Concentrations

Estimated 95th percentile blood lead concentrations at the MEI locations were less than the regulatory threshold of concern, 10 µg/dL (Cal-EPA 1992), for the hypothetical resident child and adult, actual resident child and adult, and industrial worker. Estimated blood lead concentrations at the hypothetical and actual resident child MEIs were similar to actual blood lead measurements, collected in 1992 and 1993, of children residing near the Quemetco facility (Wohl 1994). In the Wohl study, measured blood lead concentrations were less than 10 µg/dL; 62 percent of the children had measured blood lead levels less than 5 µg/dL.

The blood lead estimation is another type of hazard calculation, as most human health effects data are based on blood lead concentrations rather than external dose (Cal-EPA 1992; U.S. EPA 1994). The pharmacokinetic model used to calculate blood lead concentrations, which takes into account such factors as the absorption, transport, redistribution, and elimination of lead within the body, provides an accurate estimate of lead body burdens which, in turn, can be compared to blood lead levels associated with specific adverse health affects (U.S. EPA 1994). Therefore, although the hypothetical resident child hazard index, summed across all chemicals, exceeded 1.0 (mainly due to lead exposure), calculated blood lead levels of the hypothetical resident child MEI were significantly less than (60 percent) the threshold level of 10 µg/dL, as accepted by the U.S. Food and Drug Administration and the Centers for Disease Control (Cal-EPA 1992; U.S. EPA 1994).

Differences Noted From July 23, 1999 Version of HHRA Report

The following list summarizes the primary changes in health risk results that have resulted from responding to DTSC's February 3, 2000 comments on the July 23, 1999 HHRA report:

- The estimated location of the actual resident MEI moved approximately 1,000 feet closer to the facility, while the location of the hypothetical resident MEI remained at the same location.

- The area in which the HI for resident child exceeded a value of 1.0 was greatly reduced compared to the previous analyses (i.e., more than 50 percent reduction, and no HI values greater than 2.0). No resident child HI estimates exceeded a value of 1.2 in these revised analyses.

- The area in which the HI for resident adult exceeded a value of 1.0 reduced to approximately 50 percent of that estimated in the previous analyses.

- The area in which the resident adult cancer risk exceeded a value of 1×10^{-5} reduced to approximately 25 percent of that estimated in the previous analyses.

- The area in which the industrial worker cancer risk exceeded a value of 1×10^{-5} reduced to less than 25 percent of that estimated in the previous analyses.

- HI for hypothetical resident child, summed across all chemicals, reduced by a factor of approximately three, but still exceeds unity. However, hypothetical resident child HI, when segregated and summed by target organ systems no longer exceeds 1.0. In addition, the revised analyses have identified lead as the largest contributing factor to the estimated HI at for hypothetical resident child (the previous analyses had identified total chromium as the largest contributing factor).

- HI for hypothetical and actual resident adult increased in value versus the previous analyses. However, these increases did not affect the significance assessments made for these parameters in the previous analyses. In addition, the revised analyses have identified lead as the largest contributing factor to the estimated HI at for resident adult (the previous analyses had identified total chromium as the largest contributing factor).

- Hypothetical resident adult MEI cancer risk is now well below the U.S. EPA National Contingency Plan's generally acceptable range of upper-bound lifetime cancer risk. In addition, the revised analyses have identified hexavalent chromium as the largest contributing factor to the estimated cancer risk for hypothetical resident adult (the previous analyses had identified a combination of 1,3-butadiene and total chromium as the largest contributing factors).

- Hypothetical and actual resident adult, and industrial worker MEI cancer risk estimates decreased in value versus the previous analyses. In addition, the revised analyses have identified hexavalent chromium as the largest contributing factor to the estimated cancer risk for hypothetical resident adult (the previous analyses had identified a combination of 1,3-butadiene and total chromium as the largest contributing factors).

- 1,3-Butadiene is no longer a major contributing factor to estimated risk because OEHHA has adopted new toxicity criteria for this compound. Toxicity criteria used for all compounds evaluated in these analyses are documented in Table 5 of this report.

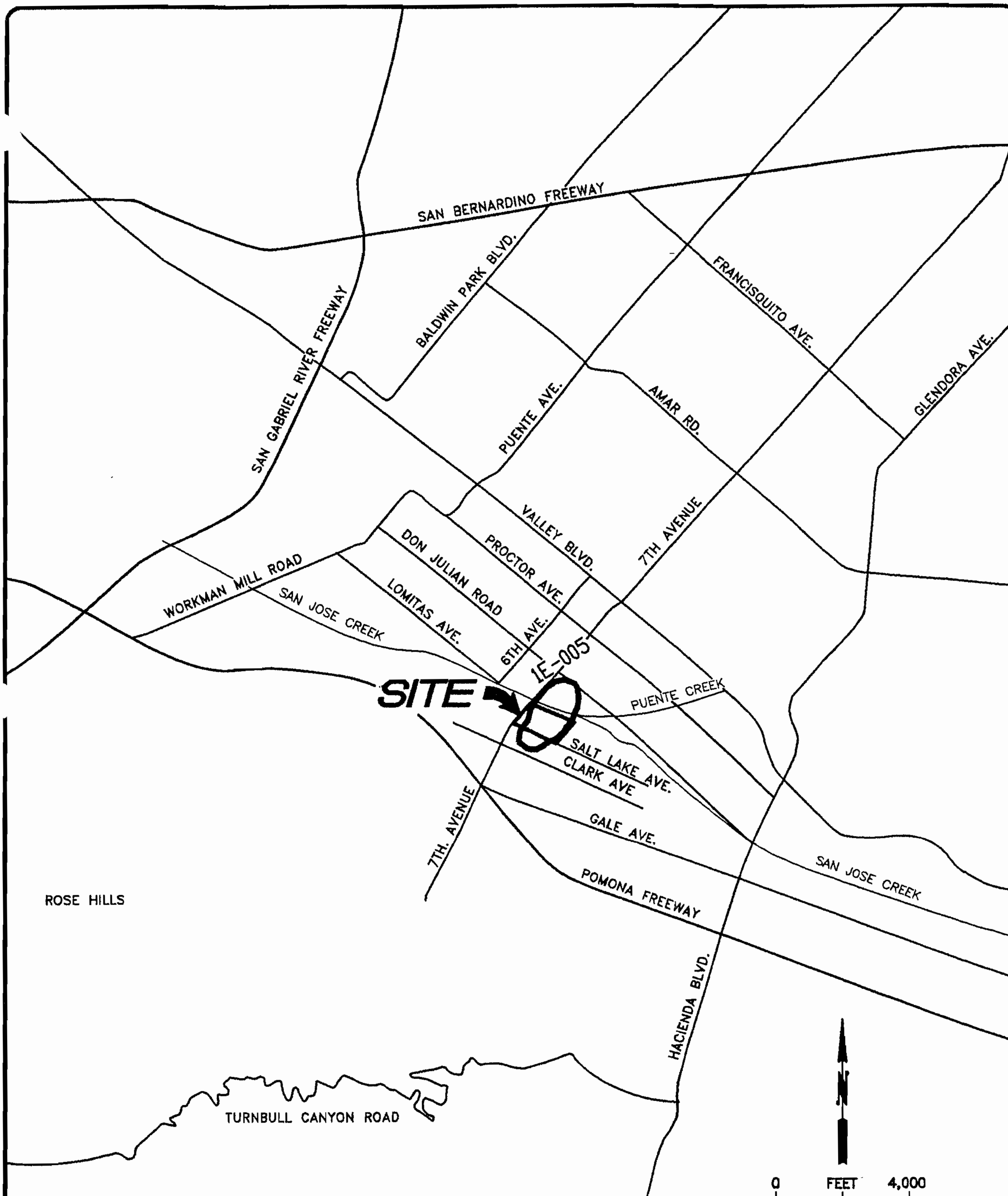
Comparison of Complex Terrain and Flat Terrain Results

Flat terrain modeling results are summarized in tabular format in Appendix I of this document. Section 5 of this HRA presents graphic and written results summaries. The following list addresses the primary differences in health risk results that have resulted from modeling complex terrain dispersion of air contaminant emissions, versus flat terrain:

- The magnitude and location of MEI cancer risk and HI are similar between complex and flat terrain analyses.
- The northern extent of the resident adult cancer risk 1 x 10^{-5} isopleth is similar between complex and flat terrain analyses. However, complex terrain analyses estimate that an excess cancer risk of 1 x 10^{-5} is exceeded in a region extending approximately 2,000 square feet beyond the region estimated in flat terrain analyses.
- The area in which complex terrain analyses estimated that industrial worker excess cancer risk exceeds a value of 1 x 10^{-5} is equivalent to that which is estimated by flat terrain analyses.
- The area in which complex terrain analyses estimated that resident child and adult HI exceed a value of 1.0 is equivalent to that which is estimated by flat terrain analyses.

Limitations

Although this HHRA is based the most accurate and up-to-date source test data available, Quemetco reserves the right to update this document when more data become available. In an effort to provide the Department and the public with the most accurate and representative data reflective of site operations and conditions, Quemetco voluntarily performed comprehensive source testing of all units at the facility during June 2000. When this new data set is qualified by the South Coast Air Quality Management District (SCAQMD), Quemetco may elect to update this document.



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

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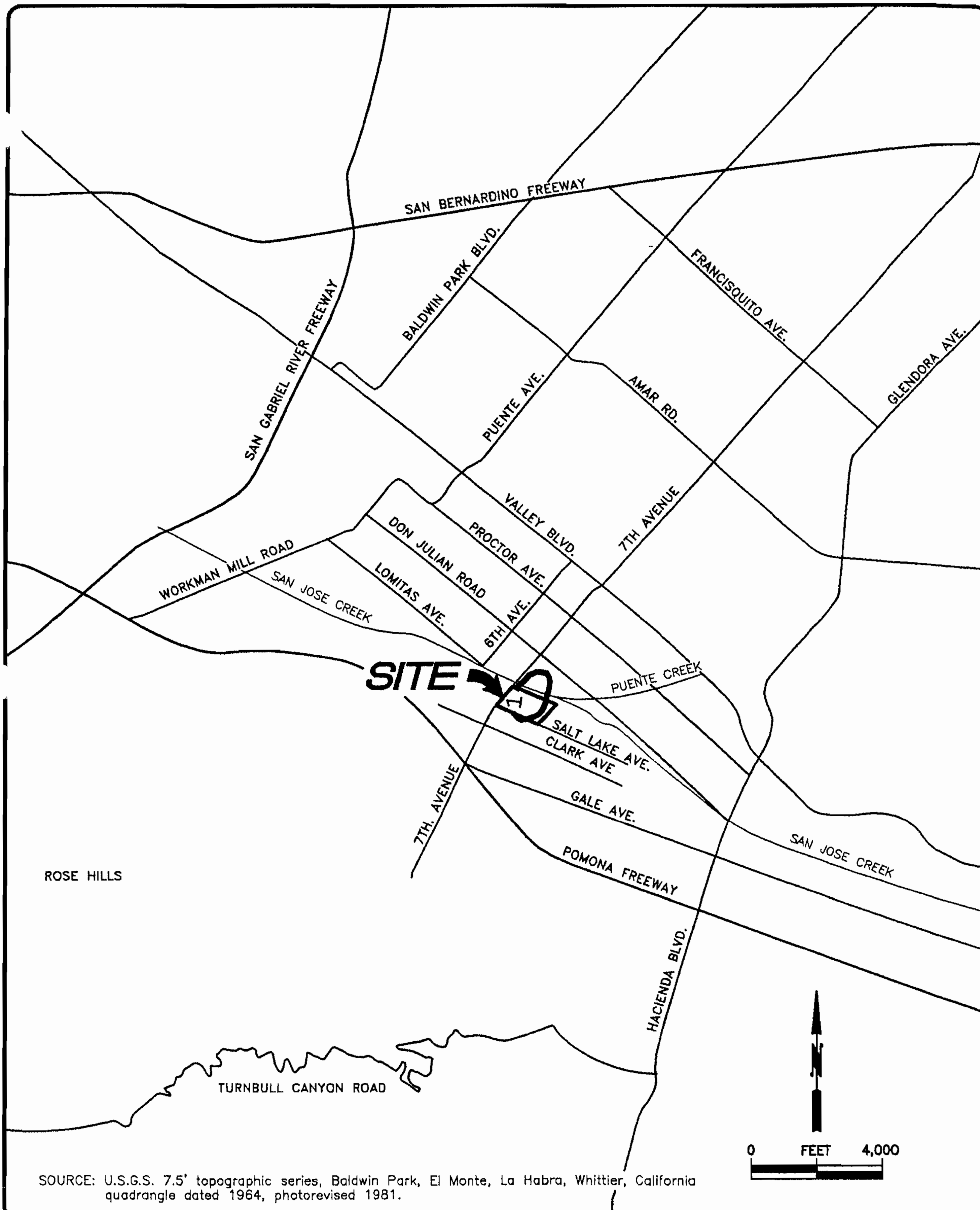
Project: 58-7122-01 August 2000

INDUSTRIAL WORKER CANCER RISK ISOPLETH (COMPLEX TERRAIN)

PLATE

ES-5



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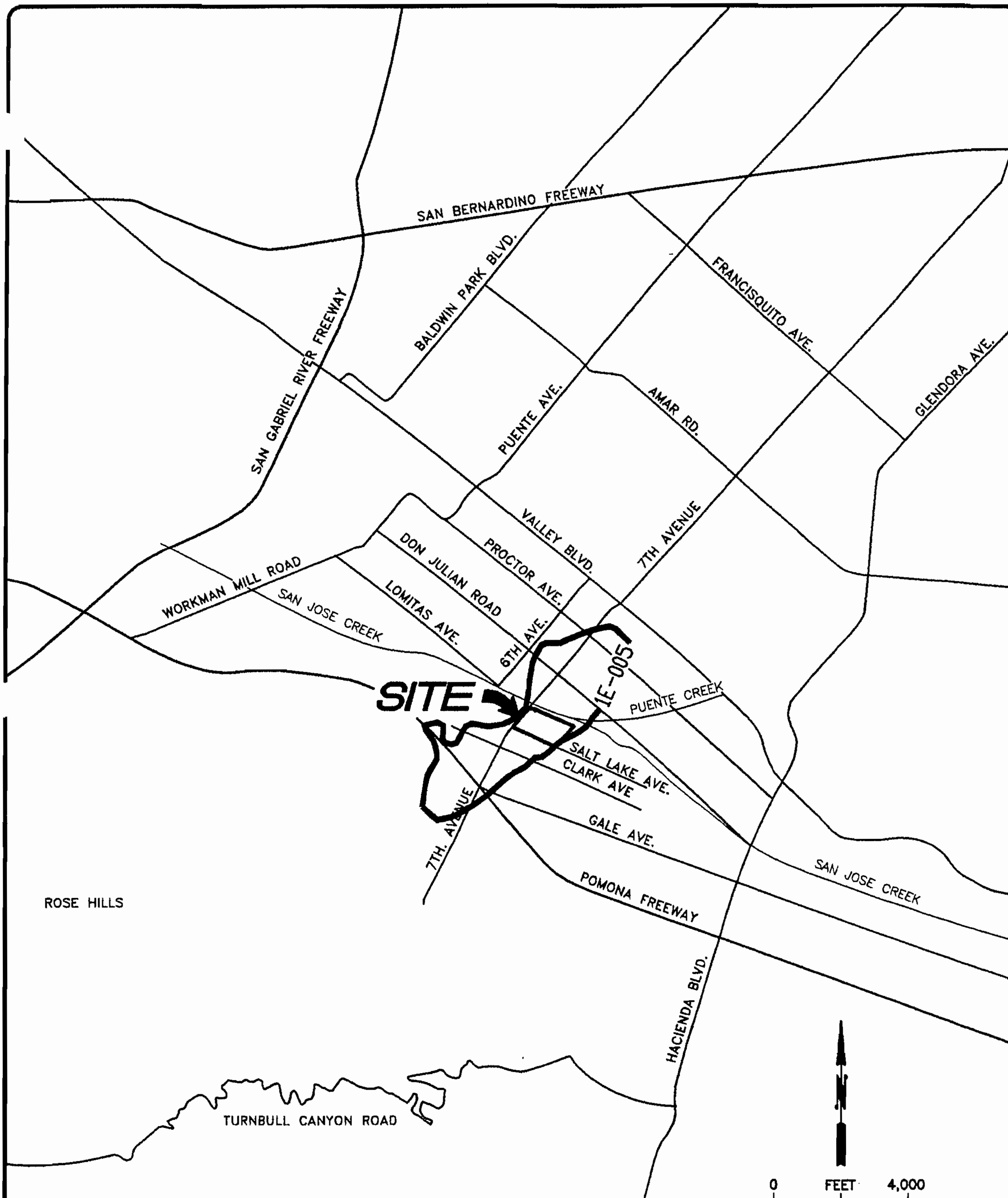
RESIDENT ADULT HARZARD INDEX ISOPLETH (COMPLEX TERRAIN)

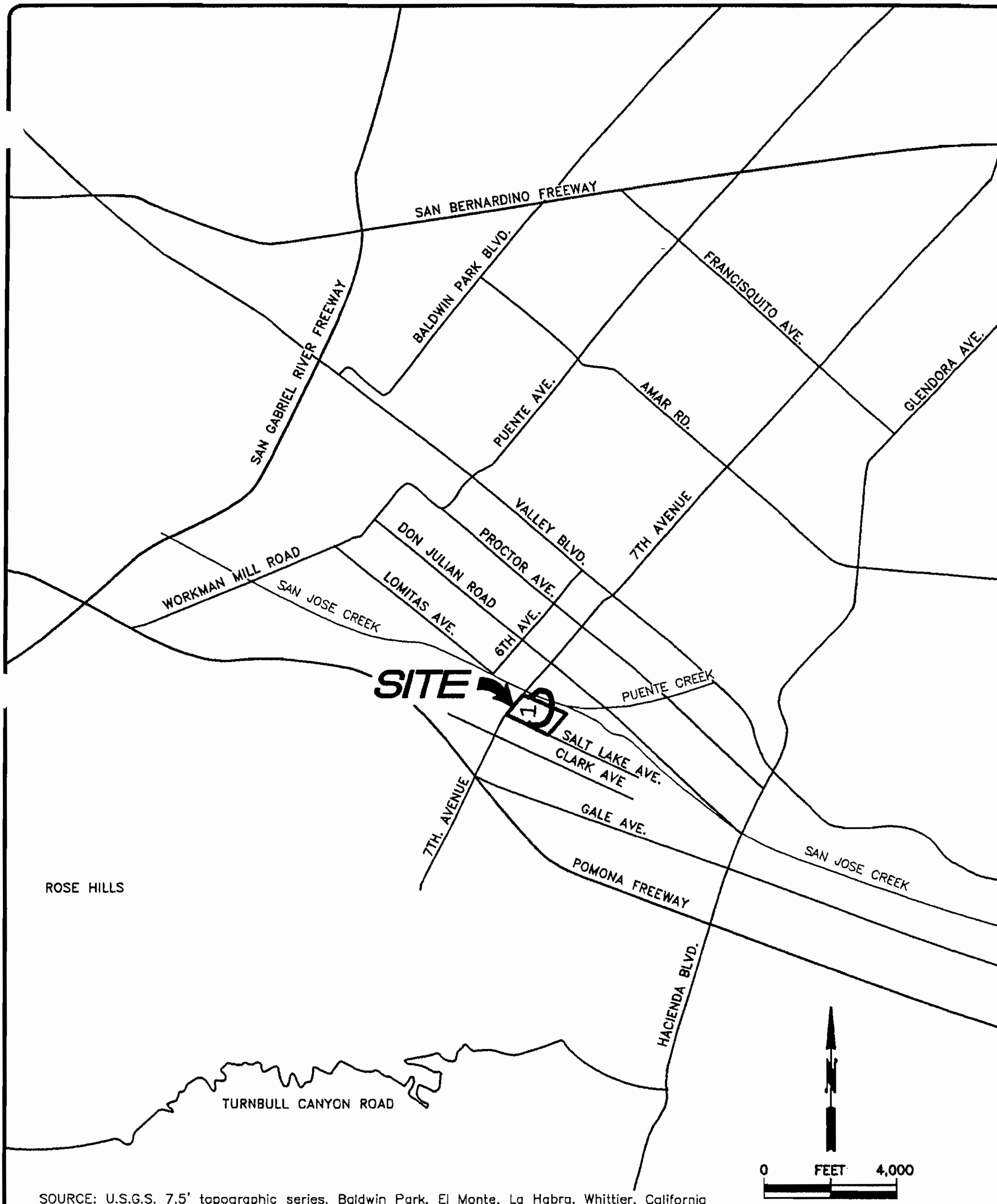
PLATE

ES-4



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

KLEINFELDER	QUEMETCO, INC. 720 South 7th Avenue City of Industry, California Project: 58-7122-01 August 2000	RESIDENT ADULT CANCER RISK ISOPLETH (COMPLEX TERRAIN)	PLATE ES-3



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

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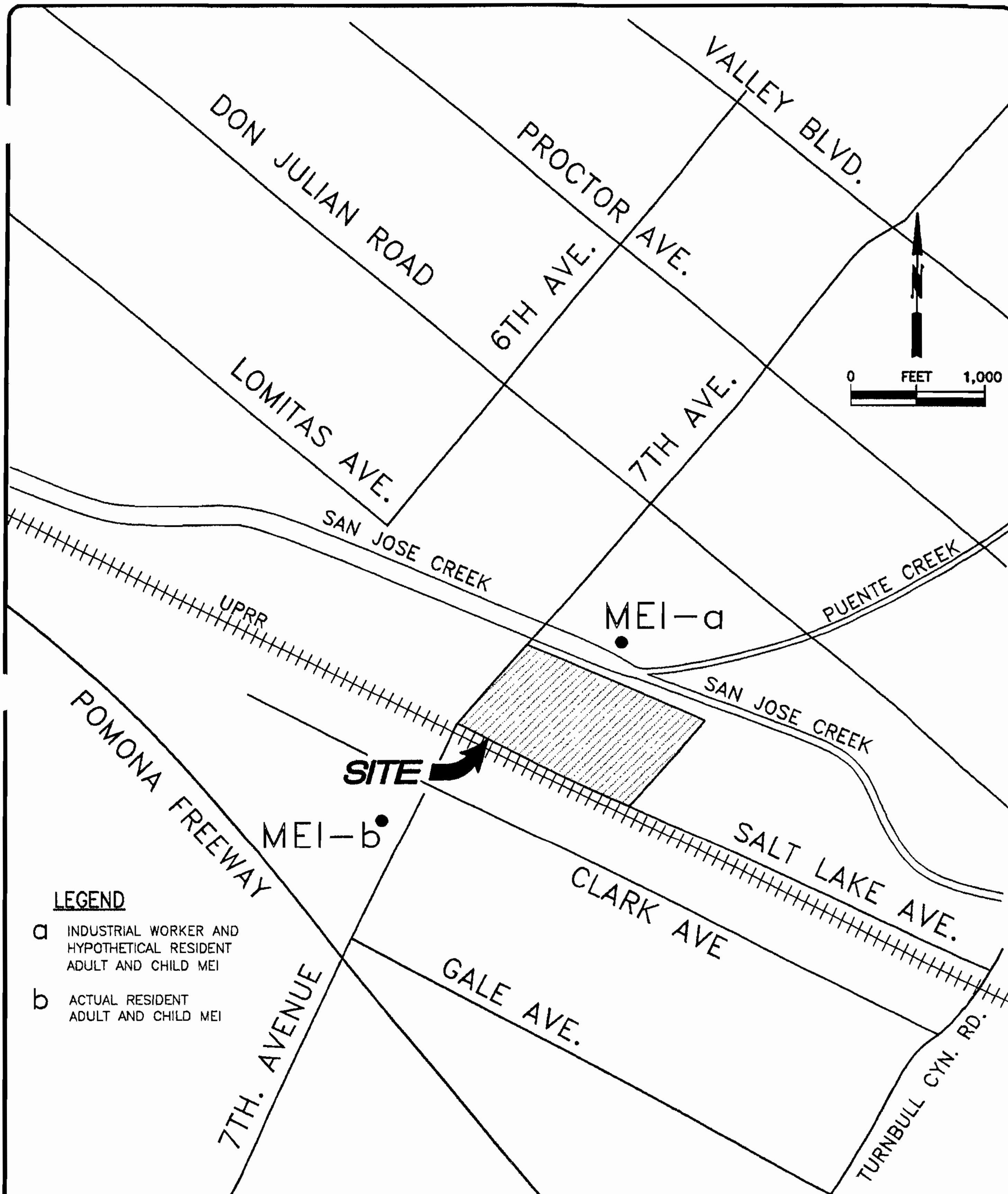
RESIDENT CHILD HARZARD INDEX ISOPLETH (COMPLEX TERRAIN)

PLATE ES-2



SOURCE: U.S.G.S. 7.5' topographic series, Baldwin Park, El Monte, La Habra, Whittier, California quadrangle dated 1964, photorevised 1981.

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City of Industry, California

Project: 58-7122-01 August 2000

LOCATION OF OFF-SITE MAXIMUM EXPOSED INDIVIDUALS (MEI) (COMPLEX AND FLAT TERRAIN)

PLATE ES-1

ACRONYMS/ABBREVIATIONS

AP-42	U.S. EPA air pollutant emission factors
ATIR	Air Toxic Inventory Report
BH	building height
BPIP	Building Profile Input Program
Cal-EPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
cm^2/day	square centimeter per day
COPC	chemical of potential concern
DTSC	Cal-EPA's Department of Toxic Substances Control
GEP	good engineering practice
GLC	ground level concentration
g/s	gram per second
HEPA	high efficiency particulate air
HHRA	human health risk assessment
HI	hazard index
HQ	hazard quotient
IRIS	integrated risk information system
ISCST3	Industrial Source Complex Short Term 3
kg	kilogram
kg/day	kilogram per day
kg/m^2	kilogram per square meter
kg/m^3	kilogram per cubic meter
kg/mg	kilogram per milligram
LOAEL	lowest observed adverse effects level
µg	microgram

μg/dL	microgram per deciliter
$\mu g/m^3$	microgram per cubic meter
m	meter
m^3/day	cubic meter per day
MEI	maximum exposed individual
mg	milligram
mg/cm^2	milligram per square centimeter
mg/kg	milligram per kilogram
mg/m^2	milligram per square meter
mg/m^3	milligram per cubic meter
m/s	meter per second
NESHAPS	national emission standards for hazardous air pollutants
NOAEL	no observed adverse effects level
OEHHA	Cal-EPA's Office of Environmental Health Hazard Assessment
PAH	polycyclic aromatic hydrocarbon
PBW	projected building width
RAGS	U.S. EPA's Risk Assessment Guidance for Superfund
RCRA	Resource, Conservation, and Recovery Act
RfD	reference dose
SCAQMD	South Coast Air Quality Management District
s/day	second per day
SVOC	semi-volatile organic compound
U.S. EPA	United States Environmental Protection Agency
UTM	universal transverse mercator
VOC	volatile organic compound

1 INTRODUCTION

This revised report documents the results of the human health risk assessment (HHRA) conducted in support of the Resource, Conservation, and Recovery Act (RCRA) Part B operating permit application by Quemetco, Inc. This report is a revision and replacement of Kleinfelder's July 23, 1999 HHRA report (Kleinfelder 1999). Since the RCRA Part B permit is an operating permit, this risk assessment focused on the potential for adverse health effects due to current operations of the facility. A site location map, facility map, and process flow diagram are presented in Plates 1, 2, and 3, respectively.

Quemetco is a secondary lead smelting facility that recycles lead batteries in the City of Industry, California. Trucks deliver used lead batteries and lead-bearing materials to the facility, which are stored on-site until processed. In processing, the battery cases are punctured to drain the battery acid, the plastic cases are crushed, and the lead-bearing materials are routed to a reverberatory furnace. Wastewater on the facility is collected and treated by an on-site wastewater treatment system. The lead-containing sludge from the wastewater treatment system is sent to the reverberatory furnace. The plastic from the battery cases is sold to a plastic recycler. The molten lead from the reverberatory furnace is poured into large molds before being further processed in the refining kettles to produce lead ingots for use by battery manufacturers. The slag from the reverberatory furnace is further refined in an electric arc furnace. The slag from the electric arc furnace is manifested as hazardous waste and sent off-site for disposal. The entire processing area is under a negative air pressure so that most emissions are captured in high efficiency particulate air (HEPA) filtered baghouses. The particulate matter is then sent to the reverberatory furnace. In accordance with federal and State regulatory requirements, paved areas are swept and cleaned with a street sweeper twice per day.

In summary, most of the processing systems are essentially closed or controlled systems with the purpose of capturing the lead emissions for recycling within the facility. However, this revised risk assessment was conducted to assess the potential for adverse health effects from the residual emissions generated by facility operating processes.

Analyses documented in the July 23, 1999 version of this HHRA report were performed in accordance with a workplan which was approved by the California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control (DTSC) on January 9, 1997

(Kleinfelder 1996; Cal-EPA 1997). The July 23, 1999 version of this HHRA also relied upon risk assessment guidance provided by the United States Environmental Protection Agency (U.S. EPA) "Risk Assessment Guidance for Superfund (RAGS), Volume 1, Human Health Evaluation Manual (Part A) – Interim Final (EPA/540/1-89/002)" (U.S. EPA 1989), and California Environmental Protection Agency (Cal-EPA) "Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities, July 1992" (Cal-EPA 1992). RAGS provides detailed guidance on many of the procedures used to assess health risk. Although developed to be used in the remedial investigation/feasibility study process at Superfund sites, the analytical framework and specific methods described in RAGS are also applicable to other assessments of hazardous wastes and hazardous materials.

Analyses documented in this revised report were modified in response to the following comments issued by DTSC on February 3, 2000 regarding the July 23, 1999 HHRA report (Cal-EPA 2000):

- Ground level concentrations (GLCs) of chemicals of potential concern (COPCs) emitted from the facility should be estimated using the Industrial Source Complex Short Term, Version 3 (ISCST3) model in Complex 1 screening mode to evaluate dispersion of contaminants in areas of elevated terrain (i.e., Complex Terrain, or terrain having a ground level elevation higher than the exhaust stack height).

  Note: Analyses documented in the July 23, 1999 HHRA report were based on GLCs of COPCs estimated using the ISCST3 model in Simple Terrain mode (i.e., assuming all terrain in the modeling analysis is flat with respect to the exhaust stack). In response to this comment issued by DTSC, GLCs for the revised analyses were recalculated using the ISCST3 model in Complex 1 screening mode.

- Recently released results of source testing for hexavalent chromium should be used in the revised HHRA.

  Note: Analyses documented in this revised HHRA report were based on source testing results released on July 18, 2000 (World Environmental 2000). As a result, this revised HHRA report is based on revised stack emissions test data for arsenic, beryllium, cadmium, hexavalent chromium, copper, lead, manganese, nickel, selenium, silver, and zinc. In addition, errors in calculation of Slag Furnace stack emission rates of acetaldehyde, benzene, 1,3-butadiene, formaldehyde, naphthalene, and polynuclear aromatic hydrocarbons (PAHs) have been corrected in this revised HHRA report. Also, toxicity criteria have been *updated to include current values released by the California Environmental Protection Agency (Cal-EPA), Office of Environmental Health Hazard Assessment (OEHHA).*

The results of this revised HHRA are intended to support the Cal-EPA DTSC effort to evaluate the potential for adverse health effects from the operation of the Quemetco, Inc. facility in the City of Industry. The remainder of this document is presented in five sections: data collection and identification of COPCs; exposure assessment; toxicity assessment; risk characterization; and qualitative uncertainty analysis.

2 DATA COLLECTION AND IDENTIFICATION OF CHEMICALS OF POTENTIAL CONCERN

Prior to conducting the HHRA, COPCs were identified. A COPC is a chemical that is potentially site-related, and whose data are of sufficient quality for use in the quantitative risk assessment (U.S. EPA 1989). Quemetco COPCs were identified primarily by reviewing recent source test results (World Environmental 2000) and past source test results of emitting units and COPC lists from previous health risk assessments completed for this facility (e.g., AB 2588 and Proposition 65; Kleinfelder 1996). Other COPCs were identified by evaluating potential chemical emissions from specific operational activities at the facility. For example, common emissions from combustion sources, such as refinery burners, are organic hydrocarbons including formaldehyde and various polynuclear aromatic hydrocarbons (PAHs). Table 1 lists the COPCs emitted from this facility by operational activity. (All tables are located at the end of this report.) The HHRA only evaluated emissions from the operational activities listed in Table 1, as approved by DTSC in the HHRA Work Plan (Kleinfelder 1996), and amended via DTSC's February 3, 2000 comments regarding the July 23, 1999 HHRA report (Cal-EPA 2000), which are discussed in detail in Section 1 of this revised report.

Operational activities not listed in Table 1 (e.g., water treatment system and paste de-sulfurization) are either completely closed systems, or systems that are not expected to have emissions that would be transported off-site (Kleinfelder 1996).

Table 1 also presents the COPC emission rates from each operational activity as well as sources of emission data. These emission rates were used to estimate ambient air concentrations that may result from normal operation of the facility. Point source and battery wrecker fugitive emission estimates were based on source tests (performed during normal or maximum operating conditions), the 1991 Air Toxic Inventory Report (ATIR) for the Air Toxics "Hot Spots" Information and Assessment Act of 1987, and South Coast Air Quality Management District (SCAQMD) approved emission factors (Kleinfelder 1996). Pursuant to DTSC's February 3, 2000 comments regarding the July 23, 1999 HHRA report (Cal-EPA 2000), the analyses documented in this revised report are based upon on source testing results released on July 18, 2000 (World Environmental 2000), and verified by the SCAQMD in July 2000. As a result, this revised HHRA report is based on revised stack emissions test data for arsenic, beryllium, cadmium, copper, lead, manganese, nickel, selenium, silver, and zinc. In addition, errors in calculation of Slag Furnace stack emission rates of acetaldehyde, benzene, 1,3-butadiene, formaldehyde, naphthalene, and polynuclear aromatic hydrocarbons (PAHs) have been corrected in this revised HHRA report (Table 1).

Emission rates of fugitive dust were estimated using U.S. EPA's Air Pollutant Emission Factors (AP-42; 1995c) for entrainment due to truck traffic, and SCAQMD emission factors (1993) for entrainment due to wind erosion. The emission factor calculations are located in Appendix A1 – Fugitive Dust Emission Factors. Surface silt loading was estimated using results from dust sampling conducted in June 1998 (see Appendix A2 – Road Dust Anayltical Results). One dust sample was collected from each of three, one square meter, sampling areas along the on-site paved road used by trucks traveling to and from the battery storage area, battery wrecker, and ingot warehouse. The three dust samples were collected using the procedures outlined in Appendix C.1 of AP-42 (U.S. EPA 1995d). Insufficient dust quantities were collected in samples B and C, most likely a consequence of dust removal by Quemetco via regular vacuuming of site roads throughout each day as required by U.S. EPA NESHAPS regulations. Therefore, only the results from sample A were used to estimate fugitive dust emissions.

3 EXPOSURE ASSESSMENT

The objective of the exposure assessment was to estimate the type and magnitude of exposure to the COPCs that may be released from the facility. The results of the exposure assessment are combined with the chemical-specific toxicity information to characterize potential risks (U.S. EPA 1989).

The initial step of the exposure assessment was to use air dispersion modeling to calculate annual average ground level concentrations (GLCs), at individual fenceline and off-site receptors, of COPCs released from Quemetco. A pollutant GLC is the ground level air concentration of such pollutant at the receptor point under evaluation, and is a function of the facility emission rate and a dilution factor provided by dispersion modeling. The facility emission rates that were input to the dispersion model are listed in Table 1. The magnitude of exposure can then be estimated from the GLCs. Air dispersion modeling is described in Section 3.1, and the potential exposure routes, intake equations, and exposure parameters are described in Section 3.2.

3.1 AIR DISPERSION MODELING

The air dispersion modeling for this risk assessment followed applicable guidance provided in the Guideline on Air Quality Models (U.S. EPA 1986, 1995a, and 1995b) and suggestions from SCAQMD; SCAQMD documentation was provided in the HHRA Work Plan (Kleinfelder 1996). All modeling output files are located in Appendix B – Modeling Runs. Fugitive dust sources associated with truck traffic and wind erosion were modeled separately from point sources and the battery wrecker fugitive source.

Air dispersion modeling was used to calculate annual average GLCs for each chemical at all receptor locations. The GLCs were then used to estimate the reasonable maximum exposures for the appropriate exposure pathways identified in Section 3.2.

In response to comments issued by DTSC on February 3, 2000 regarding the July 23, 1999 HHRA report (Cal-EPA 2000), GLCs for these revised analyses were recalculated using the ISCST3 model in Complex 1 screening mode to evaluate dispersion of contaminants in areas of elevated terrain (i.e., Complex Terrain, or terrain having a ground level elevation higher than the exhaust stack height). As a comparison, separate air dispersion modeling analyses were performed assuming flat terrain (i.e., Simple Terrain) conditions (i.e., as performed in preparation of Kleinfelder's July 1999 HHRA). The results of these comparative analyses are documented in Section 5 and Appendix I of this revised report.

3.1.1 Model Selection

The industrial source complex short term 3 (ISCST3) model was used to estimate air concentrations of COPCs released from facility operations. The ISCST3 model is a U.S. EPA-approved model recommended by the California Air Pollution Control Officers Association (CAPCOA). ISCST3 accepts actual hourly meteorological data and calculates GLCs for averaging times ranging from one hour to annual. In addition, ISCST3 simulates direction-dependent aerodynamic downwash caused by structures in the immediate vicinity.

Recommended regulatory default options, listed in the Guideline on Air Quality Models (U.S. EPA 1995b), options suggested for use by SCAQMD (Kleinfelder 1996), and comments issued by DTSC on February 3, 2000 regarding the July 23, 1999 HHRA report (Cal-EPA 2000), were used in the dispersion modeling. The model options selected for the Quemetco HHRA were:

- Gradual plume rise at all receptors;
- Stack-tip downwash;
- Buoyancy-induced dispersion;
- No calms processing (i.e., pre-processed data from SCAQMD);
- Default wind profile exponents;
- Default vertical potential temperature gradient;
- Urban dispersion coefficients; and
- Complex 1 Screening Mode (i.e., GLCs for terrain above stack height are calculated using complex terrain dispersion algorithms; GLCs for terrain below stack height are calculated using simple terrain dispersion algorithms; and the maximum GLC calculated using both complex and simple terrain dispersion algorithms is selected by the model for intermediate terrain elevations between stack height and plume centerline).

3.1.2 Aerodynamic Downwash

Immediately after release, the effluent from all point sources has the potential to be influenced by aerodynamic downwash in the wake of buildings. The ISCST3 model has the ability to account for building wake effects in estimating GLCs. ISCST3 requires 36 direction-specific building dimensions. These dimensions were computed for all modeled stacks using the Building Profile Input Program (BPIP Version 95086) approved by U.S. EPA (U.S. EPA 1995a).

BPIP calculations are divided into two parts. The first set of calculations is based solely on the good engineering practice (GEP) technical support document (U.S. EPA 1985) and is designed to conclude whether or not a stack is being subjected to wake effects from a structure or structures. Several values are calculated such as GEP stack height, GEP-related building heights (BHs), and projected building widths (PBWs). Flags are set to indicate which stacks are being affected by which structure's wake effects. The second set of calculations estimates building downwash BHs and PBWs based on Building Downwash guidance documents (Tikvart 1988 and 1989; Lee 1993), which can lead to different BHs and PBWs than those calculated for GEP. Calculations based on the Building Downwash guidance are only performed if a stack is influenced by structure wake effects. BPIP output is then formatted for editing into the ISCST3 model input runstream.

3.1.3 Meteorological Data

One year of meteorological data, 1981, collected from the Pico Rivera meteorological station was used (Kleinfelder 1996). The 1981 meteorological data was compiled for use by SCAQMD as most representative of a worst-case data set from the Pico Rivera station. These data include wind speed, wind direction, and ambient temperatures. Ceiling height, hourly mixing heights, and total opaque cloud cover observations were obtained from Ontario Airport and included in the data set by SCAQMD staff.

3.1.4 Source Characterizations

Emission sources of COPCs at the Quemetco facility were modeled to estimate off-site GLCs. Fourteen point sources were identified to account for emissions emitted from facility stacks (see Table 1). These 14 sources, along with their universal transverse mercator (UTM) coordinates and stack parameters, are listed by source ID in Table 2.

Fugitive emissions from the battery wrecker system and fugitive dust from wind erosion across open, paved areas within the facility fenceline were modeled as area sources. Fugitive dust from truck traffic along paved roads at the facility was modeled as a series of volume sources.

3.1.5 Receptor Grids

A 13-square kilometer receptor "coarse grid" was established for the Quemetco facility with 500-meter spacing centered approximately on the facility. The purpose of the coarse grid was to assist in defining the extent of downwind effects attributable to potential facility emissions, and to assist in placement of additional receptors on a finer resolution (i.e., the "fine grid") to identify points of maximum potential concentrations attributable to potential facility emissions. A 3-square kilometer receptor fine grid, with receptors spaced at 100-meter intervals, was centered approximately on the facility. The purpose of the fine grid was to quantify maximum potential concentrations attributable to potential facility emissions. Plate 4 presents the coarse and fine grid receptor systems.

A set of fenceline receptors, shown on Plate 5, were also included in the modeling runs for purposes of estimating industrial worker risk and chronic hazard along the facility fenceline.

As noted in the preceding discussion, in response to comments issued by DTSC on February 3, 2000 regarding the July 23, 1999 HHRA report (Cal-EPA 2000), GLCs for these revised analyses were recalculated using the ISCST3 model in Complex 1 screening mode to evaluate dispersion of contaminants in areas of elevated terrain. To accomplish this task, it was necessary to digitize terrain elevations associated with each of the coarse grid, fine grid, and fenceline receptors. Terrain elevations were manually interpreted from U.S. Geological Survey 7.5 minute maps for the Whittier, La Habra, El Monte, and Baldwin Park quadrangles.

3.2 EXPOSURE ASSESSMENT

Exposure of humans to chemicals in the environment can occur through a variety of different mechanisms or exposure pathways. The first step in assessing exposure is to identify exposure pathways. Exposure pathways are, in turn, assessed by evaluating the type of chemicals and the surrounding land use.

An exposure pathway describes the course a chemical or physical agent takes from the source to the exposed individual. An exposure pathway generally consists of four elements: (1) a source and mechanism of chemical release; (2) a retention or transport medium; (3) a point of potential human contact with the contaminated medium; and (4) an exposure route (e.g., ingestion) at the contact point. All four of the pathway elements must be present for exposure to occur; without exposure, risk does not exist.

The three primary exposure pathways are inhalation, ingestion, and dermal absorption. A primary exposure pathway is a route by which an individual is directly exposed to a chemical or physical agent in a contaminated medium. A secondary exposure pathway is a route by which an individual is exposed to a chemical via a food source within which the chemical has been assimilated (e.g., mother's milk, vegetation, meat, and fish).

The second step in assessing exposure is to quantify the daily intake rate of each chemical through each relevant pathway. RAGS (U.S. EPA 1989) provides a framework for quantifying exposure. The guidelines specify the types of pathways to be considered, the intake equations for each pathway, and default values for each variable in those equations. Default parameters and exposure equations result in a numerical estimate of exposure to facility-emitted COPCs. Actual exposure to the general population would likely be lower than estimated, because of conservative assumptions inherent in the default exposure parameters.

3.2.1 Type of Chemicals

The majority of the chemicals listed in Table 1 and emitted by the Quemetco facility are metals (e.g., cadmium, lead, and selenium). Semi-volatile organic compounds (SVOCs; e.g., PAHs) and volatile organic compounds (VOCs; e.g., benzene) are also emitted as a result of the combustion sources at the facility. Metals and SVOCs released to the atmosphere primarily adsorb to particulate matter that may deposit on soil and plants, and subsequently accumulate in plant tissue. Therefore, metals and SVOCs were assessed in the ingestion and dermal absorption exposure pathways, as well as inhalation. VOCs generally have relatively high vapor pressures and Henry's Law constants, and therefore are not deposited, but remain in the atmosphere as vapor. As such VOCs were only assessed in the inhalation exposure pathway.

3.2.2 Land Use

The Quemetco facility is located in the City of Industry, an area that was incorporated in the 1960s for industrial use. Hacienda Heights is located to the south and east of the facility, La Puente to the northeast, El Monte to the northwest, and Whittier to the southwest. Land use zoning classifications surrounding the Quemetco facility include:

- Light to moderate industrial;
- Heavy industrial;
- Common residential; and
- Compact residential.

The light to moderate industrial areas include warehouses, distribution centers, dry cleaners, auto body shops, and food processing facilities. The heavy industrial areas include manufacturing and chemical processing facilities. The common residential areas are primarily composed of homes built in the 1950s on approximately 1/6 acre lots. The compact residential areas are composed of apartment complexes built in the 1970s.

3.2.3 Exposure Pathways

Based on the focus of this risk assessment (i.e., Quemetco facility operations and emissions), the type of chemicals emitted from the facility, and the surrounding land use, the following primary exposure pathways were evaluated for the resident child, resident adult, and industrial worker (Kleinfelder 1996):

- Inhalation of airborne pollutants emitted from the facility;
- Incidental ingestion of airborne pollutants emitted from the facility that have deposited on soil; and
- Dermal absorption of airborne pollutants emitted from the facility that have deposited on soil.

In addition to the above primary exposure pathways, the following secondary exposure pathways were evaluated for the resident child and adult:

- Ingestion of homegrown produce onto which airborne pollutants have deposited and into which the pollutants have accumulated; and
- Ingestion of milk from a mother who has been exposed to the pollutants via all of the above exposure pathways.

Other exposure pathways listed in RAGS (U.S. EPA 1989) and the HHRA Work Plan (Kleinfelder 1996), such as ingestion of chemicals in tap water or ingestion of contaminated fish and seafood, were not evaluated because there are no drinking reservoirs, lakes, or streams supporting fish within the area that would be subject to deposition of the emissions from the facility. There are no releases to groundwater or surface water from the operations of this facility, because the run-off from the process areas of the facility are captured and treated prior to release to the public owned treatment works (Kleinfelder 1996).

3.2.4 Environmental Fate and Exposure Algorithms

Dispersion modeling (described in Section 3.1) was used to calculate the GLCs of facility emissions at each receptor point. These GLCs were, in turn, used to estimate concentrations of COPCs in soil and vegetation, as described in Section 3.2.4.1 below. These estimated concentrations of COPCs in air, soil, and vegetation were subsequently used to calculate COPC intake rates, or dose, for each of the exposure pathways described in Section 3.2.3. The dose equations used in this HHRA are discussed in Section 3.2.4.2.

3.2.4.1 Estimation of Chemical Concentrations in Air, Soil, and Vegetation

Prior to calculating intake, or dose, for each chemical by exposure pathway, the environmental fate of facility emissions was estimated based on the algorithms presented in this section. Appendix C – Annual Average Ground Level Concentrations presents the results of these computations, showing the GLC of facility emissions at each receptor point, the concentrations of contaminants deposited on soil, and the concentrations of contaminants deposited on or taken up by vegetation, at each receptor point.

Default exposure factors and environmental fate parameters used in Sections 3.2.4 and 3.2.5 equations are located in Tables 3 and 4, respectively. The source of the equations within Section 3.2.4 is CAPCOA 1993.

3.2.4.1.1 Air

GLCs of COPCs in air are a function of the facility emission rate and the dilution factor (X/Q; obtained from ISCST3 modeling) at the receptor points under evaluation. GLCs of COPCs in air were calculated as follows:

GLC = (E-rate) (X/Q) (0.001)

Where:

GLC = Ground level concentration (mg/m^3)
E-rate = Pollutant emission rate (g/s)
X/Q = Dilution factor provided by dispersion modeling ($[\mu g/m^3]/[g/s]$)
0.001 = Conversion factor from μg to mg

Assumptions:

1. No plume depletion.
2. Emission rate will remain constant for the life of the facility.

3.2.4.1.2 Soil

The average concentration in soil (Cs) is a function of deposition, accumulation period, chemical specific soil half-life, mixing depth, and soil bulk density. Average soil concentrations were calculated separately for the resident child, resident adult, mother, and industrial worker, because each exposure scenario has a different accumulation, or exposure, period. The equations used to estimate soil concentrations are as follows:

$Cs = (Dep) (X / [(Ks \times SD \times BD \times T_t])$

Where:

Cs	= Average soil concentration over the exposure period (mg/kg)
Dep	= Deposition on the affected soil area per day (mg/m^2-day; see equation below)
X	= Integral function (see equation below)
Ks	= Soil elimination constant (see equation below)
SD	= Soil mixing depth (m)
BD	= Soil bulk density (kg/m^3)
T_t	= Total days of exposure period (days; see equation below)

Dep = GLC x Dep-rate x 86,400

Where:

GLC	= Ground level concentration (mg/m^3)
Dep-rate	= Vertical rate of deposition (m/s)
86,400	= Seconds per day conversion factor (s/day)

$X = [\{exp(-Ks \times T_f) - exp(-Ks \times T_o)\}/Ks] + T_t$

Where:

T_f	= End of exposure period (days)
T_o	= Beginning of exposure period (days)

$Ks = 0.693/t_{1/2}$

Where:

0.693	= Natural log of 2
$t_{1/2}$	= Chemical specific soil half-life (days)

$T_t = T_f - T_o$

Assumptions:

1. Deposition rate remains constant for facility life.
2. Pollutants are uniformly mixed in soil.
3. Pollutants are not leached or washed away.

3.2.4.1.3 Vegetation

Estimates of the concentration in vegetation require the use of the results of the air and soil environmental fate evaluation. Plants will be exposed to the pollutants at the concentrations previously calculated in Sections 3.2.4.1 and 3.2.4.2. The average concentration in and on vegetation (Cf) is a function of direct deposition and root translocation or uptake from exposed soil. The equations used to calculate vegetation concentrations are as follows:

Cf = (Cdepv) (BIO) + Ctrans

Where:

Cf = Average concentration in and on specific types of vegetation (mg/kg)
Cdepv = Concentration due to direct deposition (mg/kg; see equation below)
BIO = Bioavailability
Ctrans = Concentration due to root translocation or uptake (mg/kg; see equation below)

Cdepv = ([{Dep} {IF}/{k} {Y}]) (1 – exp[-kT])

Where:

Dep = Deposition on affected vegetation per day (mg/m^2-day; calculated in Section 3.2.4.2)
IF = Interception fraction
k = Weathering constant (day^{-1})
Y = Yield (kg/m^2)
exp = Exponent base e
T = Growth period (days)

Ctrans = (Cs) (UF2)

Where:

Cs = Average soil concentration (mg/kg)
UF2 = Uptake factor based on soil concentration
For inorganic compounds – see Table 4
For organic compounds:

$$UF2 = ([\{0.03\}\{K_{ow}^{0.77}\}] + 0.82)/ (\{K_{oc}\}\{F_{oc}\})$$

Where:

0.03 = Empirical constant
K_{ow} = Octanol water partition coefficient
0.77 = Empirical constant
0.82 = Empirical constant
K_{oc} = Organic carbon partition coefficient
F_{oc} = Fraction of organic carbon in soil

Assumptions:

No deposition on root crops.

3.2.4.2 Exposure Dose Calculations

This section presents a brief discussion of the dose, or intake, calculations used for each exposure pathway.

3.2.4.2.1 Inhalation

Exposure to substances in ambient air occurs through inhalation of both gases and particulates. For the purpose of this assessment, particulate emissions were considered to be entirely absorbed in the lungs, which yields a highly conservative estimate of exposure. In reality, only a fraction of the inhaled particulates would reach the lungs and be absorbed. The balance would be either exhaled or swallowed. Inhalation exposure was estimated by multiplying the estimated concentrations in air by an average daily inhalation volume and exposure factors specified by U.S. EPA (1989), and dividing that quantity by the body weight and averaging time. The equation used to estimate inhalation dose is as follows:

Dose-inh = (GLC) (IR) (EF) (ED) / (BW) (AT)

Where:

Dose-ing	= Exposure dose through inhalation (mg/kg-day)
GLC	= Total ground level concentration of chemical contributed by all sources (mg/m^3)
IR	= Inhalation rate (m^3/d)
EF	= Exposure frequency (days/year)
ED	= Exposure duration (years)
BW	= Body weight (kg)
AT	= Averaging time (days)

3.2.4.2.2 Ingestion of Chemicals Deposited on Soil

Exposure from incidental ingestion of soil was estimated by multiplying the estimated soil concentration of each chemical by a soil ingestion rate and exposure factors, and dividing by body weight and averaging time. The equation used to estimate dose through incidental ingestion of soil is as follows:

Dose-s = (Cs) (IR_{soil}) (EF) (ED) / (BW) (AT)

Where:

Dose-s	= Exposure dose through ingestion of soil (mg/kg-day)
Cs	= Average contaminant concentration in soil (mg/kg)
IR_{soil}	= Ingestion rate (kg soil/day)
EF	= Exposure frequency (days/year)
ED	= Exposure duration (years)
BW	= Body weight (kg)
AT	= Averaging time (days)

3.2.4.2.3 Ingestion of Homegrown Produce

Exposure from ingestion of produce was estimated by multiplying the estimated plant concentration of each chemical by consumption rate and exposure factors, and dividing by body weight and averaging time. The equation used to estimate dose through ingestion of homegrown produce is as follows:

Dose-p = (Cf) (IF) (GI) (L) (EF) (ED) / (BW) (AT)

Where:

Dose-p	= Exposure dose through ingestion of plant products (mg/kg-day)
Cf	= Contaminant concentration in plant type f (mg/kg)
If	= Consumption of plant type f (kg/day)
GI	= Gastrointestinal absorption factor
L	= Fraction of produce homegrown
EF	= Exposure frequency (days/year)
ED	= Exposure duration (years)
BW	= Body weight (kg)
AT	= Averaging time (days)

3.2.4.2.4 Dermal Absorption of Chemicals Deposited on Soil

Dermal exposure results when soil that contains deposited chemicals contacts the skin surface and the chemicals are absorbed into the body. The daily exposure rate was calculated by multiplying the soil concentration by an estimate of the exposed skin surface area, amount of soil on the skin, chemical-specific absorption rate, exposure factors, and divided by body weight and averaging time. The equation used to estimate dose through dermal absorption is as follows:

Dose-dermal = (Cs) (CF) (SA) (AF) (ABS) (EF) (ED) / (BW) (AT)

Where:

Dose-dermal	= Exposure dose through dermal absorption (mg/kg-day)
Cs	= Average contaminant concentration in soil (mg/kg)
CF	= Conversion factor (1×10^{-6} kg/mg)

SA	= Skin surface area (cm^2/day)
AF	= Soil to skin adherence factor (mg/cm^2)
ABS	= Chemical-specific absorption factor
EF	= Exposure frequency (events/year)
ED	= Exposure duration (years)
BW	= Body weight (kg)
AT	= Averaging time (days)

3.2.4.2.5 Ingestion of Mother's Milk

Exposure to chemicals by ingestion of mother's milk occurs when lactating women, who have accumulated a body burden of chemicals from previous exposures, transfer these chemicals to infants when breast feeding. The exposure to the infant from zero to one year of age was calculated by summing the mother's daily intake from relevant exposure pathways and multiplying that exposure by the fraction that would be expected to be transferred to the infant. The equation used to estimate dose through ingestion of mother's milk is as follows:

$$\text{Dose-Im} = (Cm)\,(IR_{milk})\,(EF)\,(ED)\,/\,(BW)\,(AT)$$

Where:

Dose-Im	= Exposure dose through ingestion of mother's milk (mg/kg-day)
Cm	= Concentration of contaminant in mother's milk (mg/kg; see equation below)
IR_{milk}	= Daily breast milk ingestion rate (kg/day)
EF	= Exposure frequency (days/year)
ED	= Exposure duration (years)
BW	= Body weight (kg)
AT	= Averaging time (days)

$$Cm = (Emi)\,(t_{1/2})\,(Kf_d)\,(F_{fat})\,/\,([F_m]\,\{0.693\})$$

Where:

Emi	= Average daily maternal intake of contaminant from all exposure routes (mg/kg-day)
$t_{1/2}$	= Half-life of contaminant in mother (2,117 days for dioxins and 1,460 days for PAHs)
Kf_d	= Fraction of contaminant that partitions to mother's fat

F_{fat} = Fraction of fat in mother's milk

F_m = Percent mother's weight that is fat

0.693 = Natural log of 2

4 TOXICITY ASSESSMENT

Twelve of the 25 chemicals emitted from the facility (see Table 1) are metals, nine are considered VOCs, and four are SVOCs. Acrolein, copper, hydrogen sulfide, manganese, mercury, naphthalene, toluene, xylenes, and zinc are considered noncarcinogens (U.S. EPA 1999). Antimony, beryllium, nickel, and selenium are not considered oral carcinogens (U.S. EPA 1999).

Dose-response information needed to quantify the risk presented by each of the COPCs consisted of inhalation and oral cancer slope factors (CSFs) for carcinogens, and inhalation and oral reference doses (RfDs). CSFs and RfDs (hereinafter collectively called toxicity criteria) used in the HHRA are listed in Table 5. A CSF is an estimate of the upper-bound probability that an individual will develop cancer as a result of exposure to a unit dose of a carcinogen. An RfD is an estimate of a daily exposure level that is unlikely to cause deleterious effects in an exposed individual, including sensitive individuals, over a lifetime.

The toxicity criteria for all of the COPCs were obtained from Cal-EPA published values (Cal-EPA 1999a), the Integrated Risk Information System (IRIS), which is a database sponsored by U.S. EPA, the May 1998 preliminary remediation goals (PRGs) published by U.S. EPA Region IX (U.S. EPA 1999), or CAPCOA's Air Toxics "Hot Spots" Program Risk Assessment Guidelines (CAPCOA 1993), in the order listed. A route-to-route extrapolation of oral CSFs and RfDs to dermal CSFs and RfDs was used to estimate dermal toxicity criteria.

Chromium emissions in Table 1 are reported in terms of hexavalent chromium. Inhalation and oral CSFs for hexavalent chromium were obtained from OEHHA (Cal-EPA 1999a). Inhalation and oral RfDs for hexavalent chromium were obtained from IRIS.

The U.S. EPA does not recognize lead as a carcinogen, and IRIS does not publish CSFs or RfDs for lead. However, lead was evaluated as a carcinogen as recommended by DTSC (Cal-EPA 1997). Inhalation and oral CSFs for lead were obtained from OEHHA (Cal-EPA 1999a). Lead was also evaluated for chronic, non-carcinogenic effects using the standard reference dose approach; inhalation and oral RfDs were obtained from CAPCOA guidance (CAPCOA 1993) and are based on the California ambient air quality standard for lead. In addition to calculating carcinogenic risk and chronic, non-carcinogenic risk values, blood lead concentrations were also estimated (see Section 5.3). U.S. EPA recommends using a pharmacokinetic model to evaluate risks due to lead exposure, because the risk lead presents is based on an indicator (blood lead level) of possible effects rather than on an observed effect, which is the standard dose-response method used to assess the risk of other chemicals.

5 RISK CHARACTERIZATION

In risk characterization, the toxicity and exposure assessments are summarized and integrated into quantitative and qualitative expressions of risk. Health effect categories evaluated in this section from the operational activities at the Quemetco facility include the following:

- Lifetime excess risk of developing cancer;
- Chronic, noncarcinogenic adverse health effects; and
- Blood lead concentrations.

Appendices D – Risk Calculations and E – Hazard Index Calculations contain the cancer risk and chronic hazard values, respectively, calculated for each receptor point. The off-site receptor having the highest calculated residential and industrial risk (for both carcinogenic and noncarcinogenic health effects) resulting from the facility's emissions was identified as the maximum exposed individual (MEI) location. Results of the Appendix D and E calculations indicate that the maximum exposed off-site residential and industrial worker individual is located approximately 300 feet north of the facility fenceline. However, because residents do not actually reside at this MEI location (hereinafter referred to as the "hypothetical" resident MEI), a second MEI location was identified as that which has the maximum off-site residential risk at an actual existing residential receptor. This second MEI location is subsequently referred to as the "actual" resident MEI, and is located approximately 1,000 feet southwest of the facility fenceline. The locations of the off-site industrial worker/hypothetical resident MEI and the actual resident MEI are presented graphically on Plate 6. Table 6 presents the UTM coordinate locations and COPC GLCs at the off-site MEI locations and the on-site industrial worker MEI location. The magnitude and location of MEI cancer risk and HI are similar between complex and flat terrain analyses (see following discussion regarding complex and flat terrain analyses).

In response to comments issued by DTSC on February 3, 2000 regarding the July 23, 1999 HHRA report (Cal-EPA 2000), GLCs for these revised analyses were recalculated using the ISCST3 model in Complex 1 screening mode to evaluate dispersion of contaminants in areas of elevated terrain (i.e., Complex Terrain, or terrain having a ground level elevation higher than the exhaust stack height). As a comparison, separate air dispersion modeling analyses were performed assuming flat terrain (i.e., Simple Terrain) conditions (i.e., as performed in preparation of Kleinfelder's July 1999 HHRA). The results of these comparative analyses are highlighted in the following discussion. Tables showing detailed flat terrain modeling results are included in Appendix I.

5.1 CANCER RISK

The potential for developing cancer at the MEI locations as a result of exposure to COPCs emitted from the Quemetco facility was estimated by multiplying the total exposure dose for each chemical by the chemical-specific cancer slope factor, and summing the cancer risk across chemicals and exposure pathways. Cancer risk estimates represent the probability that a person will develop cancer of any kind in a lifetime because of exposure to the carcinogens under evaluation. The probability of developing cancer as a result of exposure to a single carcinogen increases with dose. That probability will also increase if exposure to other carcinogens occurs.

Cancer caused by chemical carcinogens is treated as a nonthreshold effect for regulatory purposes. Therefore, there is theoretically no safe exposure level for carcinogenic effects. Zero risk cannot be achieved because of the presence of natural carcinogenic chemicals in the environment. Cancer risk estimates generated by a risk assessment must therefore be evaluated in terms of acceptable risk. For carcinogens, the U.S. EPA's National Contingency Plan guidelines consider an upper-bound lifetime cancer risk less than 1×10^{-6} unconditionally acceptable, and an upper-bound lifetime cancer risk between 1×10^{-6} and 1×10^{-4} generally acceptable. These guidelines suggest that cancer risk above 1×10^{-4} is unacceptable. Cal-EPA also considers an excess cancer risk of 1×10^{-5} as acceptable.

5.1.1 Resident Adult

Table 7 summarizes the excess lifetime cancer risk for the hypothetical resident adult MEI, calculated assuming complex terrain. The total excess cancer risk for the hypothetical resident adult MEI is 5×10^{-5}. Hexavalent chromium accounts for approximately 50 percent of total risk; 1,3-butadiene and cadmium account for 24 percent of total risk (12 percent each). The major exposure pathway is inhalation, which accounts for nearly all of total cancer risk to the hypothetical resident adult MEI.

Table 8 summarizes the excess lifetime cancer risk for the actual resident adult MEI, calculated assuming complex terrain. The total excess cancer risk for the actual resident adult MEI is 2 x

10^{-5}. Hexavalent chromium accounts for 23 percent of total risk, 1,3-butadiene accounts for approximately 21 percent of total risk, and arsenic accounts for 16 percent of total risk. The major exposure pathway is inhalation, which accounts for nearly all of total cancer risk to the actual resident adult MEI.

The 1 x 10^{-5} cancer risk isopleth for resident adult exposure, calculated assuming complex terrain, is depicted on Plate 7a. For comparative purposes, Plate 7b shows the 1 x 10^{-5} cancer risk isopleth for resident adult exposure, calculated assuming flat terrain. The northern extent of the resident adult cancer risk 1 x 10-5 isopleth is similar between complex and flat terrain analyses. However, complex terrain analyses estimate that an excess cancer risk of 1 x 10^{-5} is exceeded in a region extending approximately 2,000 square feet beyond the region estimated in flat terrain analyses.

5.1.2 Industrial Worker

Table 9 summarizes the excess lifetime cancer risk for the off-site industrial worker MEI, calculated assuming complex terrain. The total excess cancer risk is 2 x 10^{-5}. The 1 x 10^{-5} cancer risk isopleth for the industrial worker, calculated assuming complex terrain, is depicted on Plate 8a. For comparative purposes, Plate 8b shows the 1 x 10^{-5} cancer risk isopleth industrial worker exposure, calculated assuming flat terrain. The area in which complex terrain analyses estimated that industrial worker excess cancer risk exceeds a value of 1 x 10^{-5} is equivalent to that which is estimated by flat terrain analyses.

Hexavalent chromium accounts for approximately 53 percent of total risk; 1,3-butadiene and cadmium account for approximately 26 percent of total risk (13 percent each). The major exposure pathway is inhalation, which accounts for nearly all of total excess cancer risk to the industrial worker MEI.

Cancer risk to the industrial worker along the facility fenceline ranges from 4 x 10^{-6} to 4 x 10^{-5}, calculated assuming complex terrain.

5.2 CHRONIC ADVERSE HEALTH EFFECTS

The potential for chronic, noncarcinogenic health effects at the MEI locations, as a result of exposure to the emissions from the operations at the Quemetco facility, was estimated by dividing the total exposure dose for each chemical by the chemical-specific RfD, resulting in chemical and pathway specific hazard quotients (HQs). HQs were summed across both chemicals and exposure pathways to develop a hazard index (HI). When the HI is less than unity, it is assumed that no adverse health effects will result from the estimated exposure.

5.2.1 Resident Child

Table 10 summarizes the chronic HI results for the hypothetical resident child MEI, calculated assuming complex terrain. The total HI is 1.19; the isopleth of HI equal to one is depicted on Plate 9a for the resident child, calculated assuming complex terrain. For comparative purposes, Plate 9b shows the isopleth of HI equal to one for the resident child, calculated assuming flat terrain. The area in which complex terrain analyses estimated that resident child HI exceeds a value of 1.0 is equivalent to that which is estimated by flat terrain analyses.

Lead accounts for approximately 43 percent of total hazard; manganese accounts for 16 percent of total hazard. The major exposure pathway is inhalation, which accounts for 61 percent of total hazard.

Because all compounds are not expected to induce the same type of effects or act by the same mechanism, the summation of HIs across all chemicals may actually overestimate the potential for adverse effects. Therefore, hypothetical resident child HIs for each chemical, calculated assuming complex terrain, were segregated by target organ systems, as shown in Table 11. Analysis of HI segregation indicates that HIs calculated for all organ systems were less than 1.0. Therefore, chronic adverse health effects are not likely to result from the estimated exposure to facility emissions.

Table 12 summarizes the chronic HI results for the actual resident child MEI, calculated assuming complex terrain. The total HI is 0.70, which indicates adverse health effect to the actual resident child MEI will not occur as a result of exposure to facility emissions. Lead accounts for approximately 35 percent of total hazard; manganese accounts for 16 percent of total hazard. The major exposure pathway is inhalation, which accounts for 63 percent of total hazard.

5.2.2 Resident Adult

Table 13 summarizes the chronic HI results for the hypothetical resident adult MEI, calculated assuming complex terrain. The total HI for the hypothetical resident adult is 1.63; an isopleth of

HI equal to one is depicted on Plate 10a for the resident adult, calculated assuming complex terrain. For comparative purposes, Plate 10b shows the isopleth of HI equal to one for the resident adult, calculated assuming flat terrain. The area in which complex terrain analyses estimated that resident adult HI exceeds a value of 1.0 is equivalent to that which is estimated by flat terrain analyses.

Lead accounts for approximately 41 percent of total hazard; manganese accounts for 16 percent of total hazard. The major exposure pathway is inhalation, which account for 61 percent of total hazard.

As for the hypothetical resident child, hypothetical resident adult HIs for each chemical, calculated assuming complex terrain, were segregated by target organ systems (see Table 14). Analysis of HI segregation indicates that all but two organ systems had HIs less than 1.0. Calculated HIs for the CNS / PNS and kidney are 1.2 and 1.0, respectively. Therefore, there is a slight potential for adverse health effects to these two organ systems in the hypothetical resident adult MEI resulting from exposure to facility emissions.

Table 15 summarizes the chronic HI results for the actual resident adult MEI, calculated assuming complex terrain. The total HI for the actual resident adult is 0.97. Lead accounts for approximately 34 percent of total hazard; manganese accounts for 16 percent of total hazard. The major exposure pathway is inhalation, which account for 65 percent of total hazard.

5.2.3 Industrial Worker

Table 16 summarizes the chronic HI results for the off-site industrial worker MEI, calculated assuming complex terrain. The total HI is 0.25. Lead accounts for approximately 28 percent of total hazard, and manganese accounts for 22 percent of total hazard. The major exposure pathway is inhalation, which accounts for 88 percent of total hazard.

Chronic HIs for the industrial worker along the facility fenceline ranges from 0.03 to 0.42, calculated assuming complex terrain.

5.3 BLOOD LEAD CONCENTRATIONS

The blood lead model developed by Cal-EPA DTSC (Leadspread) was used to estimate the blood lead concentrations at the off-site hypothetical resident and worker MEI, the off-site actual resident MEI, and on-site industrial workers exposed to both indoor air within the main building and ambient air within the facility fenceline. GLCs of lead estimated from air dispersion modeling (see Appendix C – Annual Average Ground Level Concentrations) were used to estimate the contribution of inhalation exposure to blood level concentrations at the off-site MEIs. Recent indoor and ambient air lead concentrations were used to estimate lead exposure to the on-site indoor worker via inhalation. Soil concentrations of lead used in the model for off-site MEIs were those calculated based on deposition of GLCs (see Appendix C – Annual Average Ground Level Concentrations and Section 3.2.4.1.2); soil concentrations were used to estimate the contribution of dermal absorption and incidental soil ingestion to blood level concentrations. The model default values of 15 μg/L for water and 50 $\mu g/m^3$ for respirable dust were used in the Leadspread calculations; the model default value of 270 μg/g for soil was used for the on-site worker. The exposure factors identified in Table 3 were also used in the Leadspread calculations. In addition, the default Leadspread dietary concentration of lead in food was changed from 10 μg/kg to 2 μg/kg (personal communication, Cal-EPA 1999b). The model output tables are located in Appendix F – Leadspread Results, and the results are shown in Table 17.

5.3.1 Off-Site MEIs

Off-site blood lead 95th percentile concentrations estimated by Leadspread were less than 10 μg/dL. The U.S. Food and Drug Administration considers the lowest observable adverse effect level (LOAEL) to be 10 μg/dL in children and fetuses, and 30 μg/dL in adults (Cal-EPA 1992). Therefore, based on modeled levels, it appears that residents and off-site industrial workers do not have the potential to accumulate facility-emitted lead in blood at concentrations that would result in adverse health effects.

The blood lead concentrations for the resident child MEIs, estimated by Leadspread to be less than the 10 μg/dL regulatory threshold, correspond to the results of the chronic hazard analysis discussed in Section 5.2.1. The lead hazard quotient for the central nervous system, the primary target organ of lead in children, was less than 1.0 (0.90) for the hypothetical resident child, calculated assuming complex terrain. Therefore, both analyses indicate no adverse health effects to an actual resident child as a result of Quemetco facility lead emissions. In addition, calculated blood lead levels for the resident child MEIs are consistent with actual blood lead data collected from children residing near the Quemetco facility in 1992 and 1993 (Wohl 1994). Blood levels collected from community children were less than 10 μg/dL; 62 percent of these children had blood lead levels less than 5 μg/dL.

5.3.2 On-Site Industrial Worker MEI

The blood lead 95th percentile concentration for the on-site industrial worker exposure was estimated based on lead GLCs at the on-site worker MEI location, and on industrial hygiene and ambient air monitoring performed at the facility in 1998. Calculated blood lead concentrations vary, as summarized in Table 17, depending upon the location in the facility being evaluated. Estimated blood lead levels ranged from a low of 3 μg/dL at outdoor areas within the facility fenceline, to a high of 750 μg/dL inside of the manufacturing areas. The average blood lead exposure level for workers that frequent both indoor and outdoor manufacturing areas was estimated to be 261 μg/dL. These hypothetical values assume no respiratory protection is used by the exposed individuals.

Medical monitoring of Quemetco employees performed in December 1998, indicates that actual on-site worker blood lead concentrations range from 4.2 to 40 μg/dL (see Appendix G – On-Site Worker Blood Lead Analytical Results). The U.S. Food and Drug Administration (FDA) considers the LOAEL to be 30 μg/dL in adults. Five of the 175 employees have blood lead values greater than 30 μg/dL; four of these five individuals have worked between 20 and 35 years at the facility.

OSHA regulations and Quemetco policies require workers to wear personal protective equipment (PPE), including air infiltration respirators, safety glasses, coveralls, gloves and boots. In summary, comparison of estimated on-site worker blood lead concentrations (Table 17) with actual measured concentrations (Appendix G) indicates that PPE used by Quemetco workers controls lead exposure to levels which would be expected for business office and outdoor workers at the facility.

5.4 SENSITIVE RECEPTORS

A sensitive receptor analysis was conducted; hospitals, nursing homes, schools, day care centers, and outdoor public swimming pools were identified within six kilometers of the facility. A list of these identified sensitive receptors are presented in Appendix H – Sensitive Receptors, along with their addresses, latitudes/longitudes, and UTM northings/eastings. The following sensitive receptors were identified:

- Thirty-three pre-schools/kindergartens;

- Ninety-six elementary/secondary schools;
- Five outdoor swimming pools;
- Seventeen nursing homes;
- Six hospitals; and
- Fifteen child (day) care centers.

None of the identified schools, child care centers, or outdoor swimming pools are located within the 1.0 Child Hazard Index isopleth (see Plate 9a). No nursing homes are located within the 10^{-5} adult cancer risk isopleth as shown on Plate 7a. None of the hospitals located six kilometers from the facility are within the 10^{-5} adult cancer risk isopleth.

6 QUALITATIVE UNCERTAINTY ANALYSIS

The human health risk calculations were based on estimates of exposure and toxicity. This section discusses uncertainties associated with these estimates and the potential effect of the uncertainties on the risk estimates.

6.1 EXPOSURE

Table 18 presents the assumptions on which the HHRA was based, and qualitatively evaluates the impact of the assumptions on the HHRA. Assumptions marked as having a "low" effect on exposure may affect exposure estimates by less than one order of magnitude; assumptions marked "moderate" may affect estimates of exposure by between one and two orders of magnitude, and assumptions marked as "high" may affect estimates of exposure by more than two orders of magnitude (U.S. EPA 1989).

6.2 TOXICITY ESTIMATES

There are several hypotheses regarding cancer development. Mathematical models based on the different hypotheses have been developed to estimate the cancer potency of chemical carcinogens. The potency estimates produced by these models can differ by several orders of magnitude. Therefore, there is some degree of uncertainty in the accuracy of the models in estimating potency. The U.S. EPA has used the linear multistage model for most carcinogens. That model tends to produce potency estimates of intermediate value relative to the other models. A SF is generated based on the assumption that no exposure threshold exists for any carcinogen. That is, there is no level of exposure to a carcinogen that does not pose a finite probability, however small, of generating a carcinogenic response (U.S. EPA 1989). This "nonthreshold" approach to generating SFs may actually result in overestimation of a compound's potency by up to a factor of 10.

The RfDs used in the human health risk assessment presented in this report are estimates of the "daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects during a lifetime" (U.S. EPA 1989). RfDs are derived either from a no observed adverse effect level (NOAEL), or a LOAEL. Each RfD has a built-in uncertainty factor that takes into account as many as four uncertainties:

- Using a LOAEL instead of a NOAEL;
- Using a NOAEL from a subchronic study rather than from a chronic study;
- Using a LOAEL or NOAEL from animal studies rather than from human studies; and
- Variation in sensitivity of people in the general population to the chemical.

Each uncertainty has been assigned a value of 10. Therefore, if all four of the uncertainties were to apply to a given chemical, its RfD would have an uncertainty factor of 10,000 built into its value. While use of a factor of 10 for each type of uncertainty may increase the certainty in the predictive value of the RfD, 10 is an arbitrary number that is itself uncertain.

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