FINAL REMEDIAL ACTION PLAN

BARBARY COAST STEEL SITE

Emeryville, California

Prepared for

Barbary Coast Steel Corporation

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Prepared by

EMCON
1921 Ringwood Avenue
San Jose, California 95131

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The material and data in this report were prepared under the supervision and direction of the undersigned.

EMCON

Mark Smolley
Project Manager

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1 EXECUTIVE SUMMARY

This final remedial action plan (RAP) has been prepared for the Barbary Coast Steel facility in Emeryville, California. The purpose of this RAP is to describe previous environmental investigations, current conditions at the site, and the environmental cleanup (remedial action) that will take place before the site is redeveloped. This RAP describes the cleanup alternatives that have been considered and presents the preferred alternative for remediating the site. It was prepared for submittal to the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), as required by the March 22, 1993 Consent Order (Docket No. I&SE 92/93-013) issued by the DTSC to Barbary Coast Steel. This RAP was prepared in accordance with the California Health and Safety Code section 25356.1.

1.1 Site Description

The Barbary Coast Steel (BCS) facility is a former steel manufacturing plant at 4300 East Shore Highway, Emeryville, California (figure 1). The site is located on 14.4 acres in Emeryville and Oakland. According to plans adopted by the City of Emeryville's planning commission, the site and neighboring properties will be redeveloped in the near future, for commercial rather than industrial activities. Historical operations at the site consisted of manufacturing steel reinforcement bars from scrap steel from approximately 1882 to 1991. In 1991, BCS ceased operations at the site and began removing the machinery and demolishing the buildings. The site no longer operates as a steel manufacturing facility, and all of the structures have been dismantled. It is currently vacant.

1.2 Site Investigation

To evaluate the nature and extent of various substances at the site, BCS collected soil, groundwater, and air samples during a remedial investigation. These samples were tested for an extensive list of compounds as summarized in Tables 1 and 2. The results indicate that some soils contain petroleum hydrocarbons, lead, or polychlorinated biphenyls (PCBs), at levels that need to be remediated. In some areas, groundwater also contained these compounds; however, they are at low concentrations and do not present any significant risk to human health or the environment and do not require remediation. Air samples did not contain substances which present a risk. Direct contact with the soil by

on-site construction workers was determined to be the only potential significant exposure pathway.

1.3 Site Cleanup Alternatives

As a result of the substances identified in the site soils, potential cleanup alternatives were evaluated for the site. The alternatives considered for the Barbary Coast Steel site are as follows:

- Alternative A - No action
- Alternative B - Capping the site and deed restrictions
- Alternative C - Excavation near the baghouse with off-site disposal of soils plus all of B
- Alternative D1 - PCB excavation with off-site disposal plus all of C
- Alternative D2 - Lead excavation with off-site disposal plus all of D1
- Alternative D3 - Petroleum hydrocarbon excavation with off-site disposal plus all of D2
- Alternative E - Petroleum hydrocarbon excavation with on-site bioremediation plus all of D2

The proposed alternative, Alternative D3, was selected because it is the most protective of human health and the environment and it achieves all of the remediation goals established for the site. In addition, the proposed alternative reduces the quantity of contaminants left at the site and is fairly easy to implement from a technical perspective. Alternative D3 includes: excavating soils containing lead, PCBs, and hydrocarbons above the cleanup levels and capping the site. It also includes: controlling dust (mitigation) to protect on-site construction workers during implementation, a deed restriction to limit the future use of the property to commercial and industrial purposes only, ongoing groundwater monitoring and decommissioning the on-site water supply well.

Groundwater remediation is not necessary at the Barbary Coast Steel site. This is because the groundwater is not migrating at any significant rate and is also not a potential drinking water source because of saltwater intrusion based on Water Resources Control Board Resolution 88-63. The migration rate (travel time) is described in two letter reports *Estimated Travel Time Of Petroleum Hydrocarbons To San Francisco Bay*, EMCON, April 18, 1994, and *Response To DTSC Comments on the Public Health and Environmental Evaluation (PHEE)*, EMCON, April 1, 1994 (Feasibility Study,

Appendix C). The California Regional Water Quality Control Board (RWQCB) concurred that the proposed cleanup alternative can be implemented without posing a threat to the groundwater or San Francisco Bay (RWQCB, September 15, 1995, letter presented in Appendix A).

1.4 Public Involvement

As part of the approval process for this Final RAP, DTSC requested public comments during a 30-day comment period which began March 18 and ended April 17, 1996. A Draft RAP was prepared and made available for review during the comment period. A public meeting was held on April 2, 1996. All oral and written public comments received during the public comment period are presented and addressed in a Responsiveness Summary document (Appendix B). The Final RAP reflects changes the DTSC determined appropriate in response to public comments.

Documents prepared during this investigation are on file and available for public review at the Oakland Public Library, Golden Gate Branch at 5606 San Pablo Avenue in Oakland. As appropriate, these documents are referenced throughout this RAP. The documents that describe the analyses, investigations, and evaluations that support the proposed alternative are listed in the Administrative Record List presented in Appendix C. Additional documents which support this RAP are the Statement of Reasons (presented in Appendix D) and the Non-Binding Allocation of Responsibility (presented in Appendix E).

Pursuant to the California Environmental Quality Act, Article 6 Section 15070, the DTSC prepared a Negative Declaration stating that the remedial action proposed for the site will have no significant effect on the environment. The review and comment period for the Proposed Negative Declaration coincided with the review and comment period of the RAP. No comments were received on the Proposed Negative Declaration. The Negative Declaration was signed without revision and is presented in Appendix F.

2 SITE BACKGROUND

2.1 Site Description

The BCS facility is a former steel manufacturing plant at 4300 East Shore Highway, Emeryville, California (figure 1). The site is about 14.4 acres and is currently bordered by an industrial site to the north and Southern Pacific Railroad to the east. Interstate Highways 580 and 80 border the site to the south and west. The closest residential areas are more that 1,500 feet southeast of the site. There is a shopping center approximately 1,000 feet north of the site.

2.2 Site History

BCS has owned the site since 1987, when it was acquired from Judson Steel Corporation (Judson). From 1987 until 1991 BCS manufactured steel reinforcing bars (rebar) from scrap iron. Judson manufactured steel from scrap iron from approximately 1882 until 1987. In 1991, BCS ceased operations at the site and began removing the machinery and demolishing the buildings. All of the structures have been dismantled, except for existing concrete slabs and paved areas.

Originally, BCS acquired approximately 23.5 acres from Judson in 1987. The State of California Department of Transportation (CalTrans) acquired a portion of the site to widen Interstate Highway 80 and the City of Emeryville acquired a portion of the site to extend Shellmound Avenue southward. This RAP considers only the remaining 14.4 acres currently owned by BCS (shown on Figure 2).

In the past, the incoming scrap material may have contained oils, lead, and PCBs. The lead may have come from lead pipes, painted surfaces, car batteries, and other sources. PCBs and oils were commonly used in transformers and other heat resistant machinery and may have been present in the scrap material. The site was served by aboveground and underground storage tanks containing petroleum hydrocarbons. These were used for servicing railcars and trucks, and for operating the furnace on the site. As a result of operations at the site, some of the soil contains petroleum hydrocarbons, lead, and PCBs. Figure 2 shows the areas where soil will be excavated.

2.3 Agency Involvement

The DTSC issued a Consent Order to BCS in March 1993 (Docket No. I&SE 92/93-013). The Consent Order required that BCS conduct a remedial investigation of the hazardous substances that may be present on or beneath the site. The plan for conducting the remedial investigation, risk assessment, and remedial alternatives evaluation is described in the *Workplan for Remedial Investigation and Feasibility Study* (EMCON, May 1993). This Workplan was reviewed and approved by the DTSC prior to commencing any of the site investigations. All subsequent reports have also been reviewed and approved by the DTSC.

During the remedial investigation; soil, groundwater, and air samples were collected and analyzed and the results are described in the *Remedial Investigation* (RI) R*eport* (EMCON, October 1993) and two addendum reports. These reports as described in detail in section 3. The chemical analyses, potential exposure routes, and future site usage were assessed in the *Public Health and Environmental Evaluation* (PHEE, January 1994) report to identify any potential health risks associated with the compounds detected at the site. This evaluation is described in more detail in Section 5. After the potential risks were determined, the *Feasibility Study for Remedial Action* (FS, EMCON, January 1996) was prepared to assess the alternatives for remediating the site. The FS is summarized in Section 6. The DTSC has provided oversight for each of the activities and has provided input for this RAP.

3 REMEDIAL INVESTIGATION

Environmental investigations were conducted between February 1987 and August 1995 to determine the nature and extent of the chemical compounds in site soil and groundwater. Approximately 300 soil samples and 50 groundwater samples were collected and analyzed for metals, petroleum hydrocarbons, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), total organic halides, pesticides and PCBs. Site characterization results are discussed in detail in the *Remedial Investigation Report* (EMCON, October 1993b) the *Addendum to the Remedial Investigation Report* (EMCON, April 1994a), and the *Addendum to the Remedial Investigation, IMACC Sampling* (EMCON, September 1995b). Quarterly groundwater monitoring began in March 1995 and quarterly reports document the analytical results (EMCON, 1995c and 1995d).

All analyses performed during these investigations have been conducted by a laboratory certified by the State of California for hazardous materials testing. The following sections discuss the results of the various analyses for soils and groundwater at the site. Tables 1 and 2 summarize the type and maximum concentrations of the compounds detected in site soils and groundwater.

3.1.1 Soil

BCS is built on 3 to 10 feet of artificial fill, consisting of sandy soil with metal, brick, concrete, and slag fragments. Soil samples have been collected within the fill and soils beneath the fill. These soil sampling locations are shown on Figure 3. The following sections describe the various compounds detected in the fill and soil and where these compounds are found on the site.

Metals. The site has been characterized for metals in the soil, with more than 260 soil samples collected and analyzed. Twenty-one metals were detected in soil samples collected throughout the site, twelve of which were considered to be present above naturally-occurring background levels (antimony, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, silver, tin, and zinc). The analyses indicate that the greatest potential health impact is from lead. Potential impacts from lead and other metals will be mitigated by excavating the impacted soils and by controlling dust during construction.

There are three general areas impacted by lead at the site: the former baghouse area, the scrap yard, and in the former BCS building. The following are the maximum lead concentrations in each area: baghouse - 16,800 parts per million (ppm), scrap yard - 7,210 ppm, and the BCS building - 34,100 ppm. These areas are shown on Figure 2 and will be excavated. The soils in a very limited area north of the former baghouse may also contain trace amounts of electric arc furnace emissions dust and will be removed.

Petroleum Hydrocarbons. Approximately 260 samples were analyzed for petroleum hydrocarbons. Petroleum hydrocarbons were detected in site soil samples, predominantly as the heavier weight fractions (such as diesel and hydraulic oil). Three general areas of petroleum-hydrocarbon impacted soils are shown on Figure 2 and will be excavated. Petroleum hydrocarbons were detected in the northern portion of the site, in the central portion of the BCS building, and adjacent to the former underground storage tank (UST) complex west of the warehouse and shipping building. The soil borings with elevated diesel concentrations were adjacent to the Myer's Drum property (BC-4 and MW-15). BC-4 had the highest diesel concentration (29,000 ppm). Total petroleum hydrocarbons as gasoline (TPHG) were also found in low concentrations (up to 490 ppm) near the UST excavation area. The toxic constituents of petroleum hydrocarbons (benzene, toluene, ethylbenzene, and xylenes) occurred infrequently at the site.

PCBs, TOX, and Pesticides. Approximately 100 soil samples were analyzed for PCBs, total organic halides (TOX), or pesticides. Three areas of PCB impacted soils are shown on Figure 2 and will be excavated. Two of the three areas are in the former scrap yard and the third is along the northern property boundary. PCBs were detected in twenty samples, with a maximum concentration of 140 ppm (BC-4). The PCB concentrations exceeded 10 ppm in only 3 samples. With the exception of one sample location (SB-35), PCBs were detected only in the former scrap yard and along the northern property boundary. Soil samples from boring SB-35 detected PCBs at a concentration of 5 ppm. TOX was detected in only three samples, with a maximum concentration of 23 ppm.

Pesticides were detected only in samples collected along the northern property boundary up to 11 ppm. However, this location also contains PCBs and hydrocarbons and will be excavated due to the presence of these compounds. Therefore no additional remediation is necessary with respect to the pesticides.

VOCs and SVOCs. Approximately 100 soil samples were analyzed for VOCs and SVOCs. VOCs and SVOCs did not exceed 1 ppm in soil samples except in three borings (BC-4, BC-10, and P-3) along the northern property boundary. Trichloroethene (TCE) was found in only one sample (HW-7-1), and tetrachloroethene (PCE) in three samples (HW-7-1, HW-7-2 and HW-12-2). Toluene and xylenes were detected in three samples and ethylbenzene was detected in two samples. Acetone and methylene chloride were detected randomly in 5 and 6 locations, respectively, and 2-butanone and carbon disulfide

were detected in two locations. SVOCs were detected generally only in borings near the northern property boundary. These compounds occurred infrequently across the site.

The area along the northern property boundary also contains PCBs and hydrocarbons and will be excavated due to the presence of these compounds. Therefore, no additional remediation is necessary with respect to the VOCs and SVOCs.

3.1.2 Slag Piles

There are currently three slag piles at the site. The largest pile is recyclable material directly from furnace operations and is not mixed with other materials. The remaining two piles (referred to below as slag pile 1 and slag pile 2) contain slag and debris and were generated by scraping the upper 2 feet off the scrap yard in 1991. The two piles of slag and debris were sampled and analyzed for petroleum hydrocarbons, PCBs, and metals.

One sample collected from slag pile 1 did not contain any petroleum hydrocarbons, and the other contained petroleum hydrocarbons at a concentration of 83 ppm. No PCBs were detected in either sample. The total metals analysis indicated two samples contained chromium at concentrations of 2,660 ppm and 2,950 ppm, respectively, exceeding the TTLC of 2,500 ppm. Sample CS-6 did not contain any total metals concentrations that exceeded the TTLC, nor soluble concentrations that exceeded toxicity characteristic leaching procedure (TCLP) or soluble threshold limit concentration (STLC) criteria.

The two composite samples collected from slag pile 2 contained petroleum hydrocarbons at 240 and 460 ppm, respectively, and PCBs at 1 and 4 ppm, respectively. The metals results indicated that one sample contained copper at a concentration of 3,050 ppm, exceeding the TTLC criteria of 2,500 ppm. The metals results indicated that sample CS 13 contained lead at a concentration of 1,940 ppm, exceeding the TTLC criteria of 1,000 ppm. The metals results indicated that one sample also contained zinc at a concentration of 16,200 ppm exceeding the TTLC criteria of 5,000 ppm.

The petroleum hydrocarbons and PCB analyses indicate the materials in the slag piles are not hazardous for the purposes of disposal. A statistical evaluation was performed on the metals analyses to determine whether the slag is hazardous or nonhazardous. Because only a limited number of results exceeded the TTLC criteria, the statistical evaluation indicates that the slag is nonhazardous.

In addition to the total metals analyses, selected samples were analyzed for soluble metals concentrations according to the TCLP or STLC methods. The analyses indicated that none of the samples contained metals which exceeded the soluble metals criterion. This indicates that the slag is nonhazardous (Feasibility Study, Appendix A).

3.1.3 Groundwater

Groundwater samples have been collected from numerous monitoring wells (shown on Figure 2) placed throughout the site and have been analyzed for petroleum hydrocarbons, metals, PCBs, VOCs, SVOCs, electrical conductivity, and total dissolved solids (TDS). The groundwater at the BCS site, particularly on the western portion, has naturally-occurring high levels of TDS (530 to 9,500 parts per billion [ppb]) due to saltwater intrusion from San Francisco Bay. Elevated TDS levels, such as those found at the BCS site, mean that the water cannot be used for drinking water according to California State Water Resources Control Board Resolution 88-63.

The groundwater at the site occurs at 3 to 8 feet below the ground surface and generally flows southwest, toward San Francisco Bay. The shallow groundwater is not used for beneficial purposes. As shown in Table 2, low concentrations of petroleum hydrocarbons, metals, and PCBs have been detected in groundwater samples within limited areas of the site. The evaluation of groundwater is discussed further in Section 5.2.4.

Water from a deep well (at 487 feet in depth) had been used in the steel manufacturing operations at the site. The sampling results indicate that the deep water-bearing zone has not been impacted by site activities. Agency records indicate there are no other water production wells within a 1-mile radius of the site.

4 SUMMARY OF PREVIOUS REMOVAL ACTIONS

Barbary Coast Steel acquired the site in 1987 and since that time they have performed various interim remedial actions to reduce the potential for environmental impacts. BCS closed the facility in 1991 and no longer manufactures steel. The equipment at the site has been removed and salvaged. BCS removed underground storage tanks from the site in 1988 and all of the buildings and above ground structures were demolished between 1992 and 1995. Concrete slabs and paved areas that cover a significant portion (over 11 acres) of the site, remain in place. Scale pits, which were used during the operations to store cooling water, were emptied and covered with concrete in 1995.

BCS generated wastes from scraping the upper 2 feet of material off the scrap yard and from the demolition of the melt shop. The wastes were non-hazardous and most of this waste has been disposed at an appropriate disposal facility. Two piles of material from the scrap yard remain at the site as described in Section 3.1.2.

A spill of transformer oil occurred in 1994 during an apparent act of vandalism at the site. The area of the spill was cleaned by removing soils and ponded surface water which were visibly stained with the oil and disposing the material at an appropriate disposal facility.

5 SUMMARY OF SITE RISKS

5.1 Risk Evaluation

Potential risk to public health and the environment posed by the site before remediation was evaluated by EMCON and presented in the *Public Health and Environmental Evaluation* (PHEE) report (EMCON, January 1994c). The PHEE was supplemented by additional evaluations which include the *Estimated Travel Time of Petroleum Hydrocarbons to San Francisco Bay* (EMCON April 1994) and the *Soil Cleanup Levels for High Boiling Point Hydrocarbons* (EMCON, August 1995). To be conservative, these evaluations assumed the site was unpaved, although 77 percent of the area currently owned by BCS is effectively capped.

The PHEE assessed the potential risks from petroleum hydrocarbons, PCBs, and the twelve metals found at the site above background levels. Soil cleanup levels were established for the compounds that presented potential risks; specifically, petroleum hydrocarbons, PCBs, and lead. The results of the risk evaluations are summarized below.

5.1.1 Exposure Pathways

All major environmental mechanisms that might transport substances in the soil and groundwater at the site were evaluated. Exposure from inhalation of dust or handling the site soils (dermal contact) was identified as the only potentially complete exposure pathways. Therefore, inhalation and dermal contact with site soil were evaluated as potential exposure routes.

Indirect exposure pathways considered and determined not to be significant at the site were: (1) migration from soils to the groundwater and subsequent transport to the Bay; (2) transport of site soil off site via surface-water runoff; and (3) transport of substances from the upper shallow groundwater zone to the lower shallow groundwater zone and then to the deep groundwater zone.

5.1.2 Potential Receptors

The PHEE considered various receptors (populations or groups of individuals) that have some potential to come in contact with airborne dust and site soils. The only receptor that has the potential for significant contact with dust or site soils are construction workers involved in on-site soil grading operations. There are no animal or plant habitats on the site due to over 100 years of industrial use. Therefore, no potential environmental receptors for site soils were identified in the PHEE, nor were any current or future human or environmental receptors for shallow groundwater identified.

5.1.3 Risk Evaluation

The risk assessment indicated that, if dust is controlled during construction by watering the site, substances present in the site soils do not present a significant risk to on-site construction workers. As required by the U.S. Environmental Protection Agency (U.S. EPA) and DTSC guidelines, the potential cancerous and non-cancerous health risks to construction workers were evaluated for the specific compounds at the site. Results from the risk evaluation are summarized in Table 3. The potential risk of developing cancer must be less than 1 in 10,000 to 1 in 1,000,000 to be considered acceptable according to U.S. EPA risk-assessment guidelines. The level of acceptability is based on site-specific features, such as the eventual use of the site (commercial versus residential) and mitigation measures taken, such as capping the site. The total potential risk presented in Table 3 (1.86×10^{-6}) is within the acceptable range. After remediation, the potential risk will be less than 1 in 1,000,000.

The assessment of the non-cancerous health risks for construction workers indicated that adverse health effects might occur if no mitigation measures were taken during construction activities. Of the total potential risk calculated for construction workers, over 95 percent was from inhalation of airborne dust. The risk evaluation also showed that most of the airborne dust, and hence the potential risk, during the construction period would result from movement of construction equipment. Routine dust control measures (such as watering) during construction would result in a greater than 90 percent decrease in exposure to site dust via inhalation. Therefore, if dust is controlled during construction, substances present in site soils do not present any significant risk to on-site construction workers.

5.2 Determination of Cleanup Levels

Based on the results from the risk evaluation and on guidelines from the DTSC and RWQCB, cleanup levels were determined for the following substances found at the site: petroleum hydrocarbons, lead, and PCBs.

5.2.1 Petroleum Hydrocarbon

The petroleum hydrocarbons in the soil at the Barbary Coast Steel site primarily consist of fuel oil and hydraulic oil. The potential health risk from these petroleum hydrocarbons is very low, primarily because they do not contain potentially harmful organic compounds. EMCON determined the cleanup level for these compounds using an assessment method approved by the U.S. EPA and the DTSC (specifically the Decision Support System for Exposure and Risk Assessment, American Petroleum Institute, 1993). EMCON calculated a soil cleanup level of 26,000 ppm for high-boiling-point hydrocarbons (HBHCs), such as hydraulic oil. This level is protective of human health and the environment when considering the site-specific factors for the Barbary Coast Steel site. Therefore, to be conservative, a cleanup level of 26,000 ppm will be used for most of the site.

There are no areas at the site which exceed the 26,000 ppm cleanup level for HBHCs. However, there are three areas at the site where the 26,000 ppm cleanup level will not be used. These areas contain soil with petroleum hydrocarbons as diesel and are along the northern property boundary, near two former underground storage tanks, and at one location beneath the former Barbary Coast Steel building (MW-17). A cleanup level of 1,000 ppm as diesel will be used for these areas based on guidelines from the RWQCB's underground storage tank program.

5.2.2 Lead

EMCON assessed the potential health risks of lead, which would remain on site after the property is developed for commercial use. EMCON reviewed toxicology studies recommended by DTSC. These studies indicate that when lead is present in materials such as mine tailings and slag, it has a low bioavailability (i.e., cannot readily be adsorbed by humans). Site specific testing to determine the leachability of metals from the on-site slag support this conclusion. Based on these studies, EMCON derived a cleanup level of at least 5,600 ppm. The DTSC suggested a cleanup level of 5,000 ppm. To be conservative, the lead cleanup level will be 5,000 ppm. This value is conservative because it does not account for the low bioavailability of lead in the form in which it occurs at the site.

5.2.3 PCBs

The U.S. EPA Toxic Substances Control Act recommends a cleanup level between 10 and 25 ppm for PCB transformer spills in an industrial setting. EMCON evaluated the potential risks to construction workers from the PCBs detected in soil at the site and verified that the U.S. EPA's recommended cleanup criteria is protective of human health and the environment for this particular site. Based on direction from the DTSC, a 10 ppm cleanup level will be used for the PCBs in soil on site.

5.2.4 Groundwater Risk

The potential risks to human health and the environment posed by groundwater beneath the site was evaluated in the PHEE and several related documents. The potential risk to human health was considered in the PHEE and in the Soil Cleanup Levels for High Boiling-Point Petroleum Hydrocarbons (EMCON, August, 1995). These documents presented analyses of total dissolved solids (TDS) in the groundwater which are above 3,000 ppb. Groundwater with TDS concentrations above 3,000 ppb is not considered suitable for drinking water by the State of California (Water Resources Control Board, Resolution 88-63). The high TDS concentrations are a result of saltwater intrusion resulting from the site being close to San Francisco Bay. The impact of the site on the underlying groundwater does not present a significant threat to human health because the groundwater is not a potential drinking water source.

The impact of site groundwater on the environment (specifically, the waters of San Francisco Bay) was evaluated by estimating the time that site-related substances may take to reach the Bay. The results of these calculations for metals, PCBs and high boiling point petroleum hydrocarbons indicated that it would take more than 4,000 years for any substances to reach the Bay. Because of the long travel times, site-related substances do not present a significant threat to the environment. The evaluation of travel times is described in two letter reports *Estimated Travel Time Of Petroleum Hydrocarbons To San Francisco Bay,* EMCON, April 18, 1994, and *Response To DTSC Comments on the PHEE,* EMCON, April 1, 1994 (Feasibility Study, Appendix C). The RWQCB concurred that the proposed cleanup alternative can be implemented without posing a threat to groundwater or San Francisco Bay (RWQCB, September 15, 1995, letter presented in Appendix A). Groundwater will be monitored to determine whether any significant changes occur in groundwater conditions that may require corrective action.

6 SUMMARY AND EVALUATION OF REMEDIAL ALTERNATIVES

After cleanup levels were developed for the Barbary Coast Steel site, the extent of each area containing compounds above the cleanup levels was delineated. The areas as shown on Figure 2 that will be remediated are:

- Near the baghouse where lead concentrations exceed 5,000 ppm and soils may contain electric arc furnace emissions dust.
- Along the northern property boundary, near two former underground storage tanks, and at one location beneath the former BCS building where petroleum hydrocarbons as diesel are above 1,000 ppm.
- In the scrap yard and under the BCS building where lead concentrations exceed 5,000 ppm.
- In the scrap yard and along the northern property boundary where PCB concentrations exceed 10 ppm.

The following sections discuss the evaluation of the remedial alternatives to achieve the cleanup objectives and recommends the preferred alternative. A detailed evaluation of the remedial alternatives is presented in the *Feasibility Study for Remedial Action* (EMCON, January 1996).

6.1 Selection of Remedial Alternatives

Various technologies were evaluated as possible methods to remediate the areas above the cleanup criteria. The technologies included land use restrictions, capping, excavation, soil stabilization, soil-washing, and biological treatment. These technologies were assembled into various alternatives, which were then evaluated against nine criteria outlined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to select the alternative to be implemented at the Barbary Coast Steel site. The nine criteria, as modified by the State of California, are summarized below:

1. **Overall Protection of Human Health and the Environment** - Addresses whether or not a remedy provides adequate protection and describes how risks posed through

each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

2. **Compliance with State and Federal Requirements** - Addresses whether or not a remedy will meet all appropriate federal, state, and local environmental laws and regulations.

3. **Long-term Effectiveness and Permanence** - Refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met.

4. **Reduction of Toxicity, Mobility, or Volume through Treatment** - Refers to the ability of a remedy to reduce the toxicity, mobility, and volume of the hazardous substances or constituents present at the site.

5. **Short-Term Effectiveness** - Addresses the period of time needed to complete the remedy, and any adverse impact on human health and the environment that may be posed during the construction and implementation period, until the cleanup standards are achieved.

6. **Implementability** - Refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed to carry out a particular option.

7. **Cost** - Evaluates the estimated capital, operation, and maintenance costs of each alternative.

8. **Regulatory Agency Acceptance** - Indicates whether, based on a review of the information, the applicable regulatory agencies would agree with the preferred alternative.

9. **Community Acceptance** - Indicates whether community concerns are addressed by the remedy, and whether or not the community has a preference for a remedy.

The nine criteria listed above were used to evaluate alternatives for remediating the site. In order for an alternative to be eligible for selection, it must meet the first two criteria described above, called "threshold criteria." Criteria 3 through 7 are the "primary balancing criteria," and criteria 8 and 9 are "modifying criteria." See the NCP (40 CFR 300.430 (e)) for a discussion on the use of these criteria.

The remedial alternatives as listed below include the following components: no action, capping, excavation with off-site disposal, and excavation with on-site bioremediation. A no-action alternative for soil and groundwater is required by the NCP to provide a

baseline for comparison with other alternatives. The alternatives considered for remediating the Barbary Coast Steel site are as follows:

No Action

- Alternative A - No action for soil; monitoring only for groundwater

Capping

- Alternative B - Capping, dust mitigation during construction, deed restriction, decommissioning the water supply well, and groundwater monitoring

Excavation with Off-Site Disposal and Capping

- Alternative C - Baghouse area soil removal and off-site disposal, plus all of Alternative B
- Alternative D1 - PCB soil removal and off-site disposal, plus all of Alternative C
- Alternative D2 - Lead soil removal and off-site disposal, plus all of Alternative D1
- Alternative D3 - Hydrocarbon soil removal and off-site disposal, plus all of Alternative D2

Excavation with Bioremediation and Limited Off-Site Disposal and Capping

- Alternative E - Hydrocarbon soil removal with on-site bioremediation and backfilling of treated soil, plus all of Alternative D2

Soil at several locations at the BCS site exceeds cleanup levels and requires remedial action. However, groundwater does not require remediation as indicated by the monitoring data and as agreed to by DTSC and RWQCB. Therefore, the remedial alternatives focus primarily on mitigating potential exposures associated with soil. Groundwater monitoring is included in each alternative and will be in compliance with monitoring requirements to be set forth by DTSC and RWQCB. During excavation of the impacted soil, groundwater that accumulates in the excavations will be removed and appropriately disposed.

6.2 Comparative Analysis of Remedial Alternatives

This section compares the various remedial alternatives against the nine criteria as outlined in the NCP. This comparison is summarized in Table 4.

Overall protection of human health and the environment. Alternative A provides no action to minimize threats to human health and the environment. Therefore, Alternative A will be eliminated from consideration and will not be discussed further in the criteria analysis. All of the remaining alternatives include capping the site and therefore reduce the amount of exposed soil and eliminate the potential exposure routes; dermal contact and inhalation. However, Alternative D3 provides the greatest overall protection of human health and the environment, remediates all identified areas of concern at the site, provides long-term effectiveness and permanence, and minimizes the threat to groundwater.

Compliance with Applicable Requirements. The excavation Alternatives B, C, D1, and D2 meet various requirements for the site, with the possible exception of remediating the soil adjacent to underground storage tanks and along the northern property boundary. Alternatives D3 and E meet all requirements for the site.

Long-Term Effectiveness and Permanence. Alternative B through E include capping the site which will effectively protect human health and the environment. Alternatives B, C, D1, D2, and D3 provide progressively greater levels of long-term effectiveness and permanence by removing soils above various cleanup levels.

The long-term effectiveness of bioremediation (Alternative E) at the site is unclear without an extensive treatability study. Alternative D3 provides the greatest long-term effectiveness by removing all soils above the cleanup levels determined for the site.

Reduction of Toxicity, Mobility, or Volume through Treatment. Capping the site (included in each of the Alternatives B through E) would greatly reduce the mobility of the contaminants near the surface in unpaved areas of the site.

The excavations described in Alternatives C (488 cubic yards [cy]), D1 (580 cy), D2 (750 cy), and D3 (3,200 cy) would reduce the mass of contaminants left in place by disposing the soil off-site. Alternative D3 removes 100 percent of the soil exceeding the cleanup criteria for the site. Alternative E may be able to reduce the concentrations of petroleum hydrocarbons through bioremediation; however, the effectiveness of remediating the soils through bioremediation is uncertain without conducting a treatability study. In addition, bioremediation will not treat the lead or PCBs that require remediation.

Short-Term Effectiveness. Capping the site (included in Alternatives B through E) provides short-term effectiveness by eliminating exposure to airborne dust through the construction of the asphalt cap. Therefore, all of the alternatives would reduce dermal and inhalation exposures and are considered acceptable. However, all of the alternatives that have excavation components (Alternatives C through E) would potentially have some short-term impact on construction workers due to air emissions generated during

construction. However, potential air emissions will be controlled during excavation using dust control measures. The short-term effectiveness of Alternative E would be fair to poor because of the increased handling of soil at the site and the increased potential for construction workers to be exposed to airborne dust over a 6 to 12 month implementation period. In addition, a treatability study would be required and this would significantly delay implementation and site development.

Implementability. Alternatives B through D3 would be relatively easy to implement from a technical standpoint because standard construction equipment would be used for capping and excavation. However, Alternative E presents difficulties in controlling worker exposure to dust because of the large area of uncovered soil that would need to be tilled on a regular basis. Also, if bioremediation is not successful, some TPH-impacted soil would have to be disposed off site.

Cost. Table 4 presents the costs for implementing each alternative.

Regulatory Agency Acceptance. The RWQCB and DTSC have reviewed the alternatives for remediating the site and support the implementation of Alternative D3. Alternative D3 has been supported by the regulatory agencies because it meets the cleanup objectives for the site, complies with regulatory requirements, and provides overall protection of human health and the environment.

Community Acceptance. The local community is not likely to accept Alternative B because only limited action is taken to remediate soils at the site. Alternatives C, D1, and D2 may not be acceptable to the community because the TPH-impacted soil would not be effectively remediated. Alternative D3 is likely to be accepted by the community because it provides the highest level of protection by remediating the soils near the baghouse, by removing PCB-, lead- and TPH-impacted soil to the cleanup criteria prior to capping the Site. Alternative E may concern the community because of the reduced overall protection of human health and the environment from airborne dust and exposure to site construction workers. Delays in site redevelopment caused by the required feasibility study, construction, and operation and maintenance of the bioremediation cell would likely make this alternative less acceptable to the community.

6.3 Recommendation of Preferred Alternative

Based on consideration of the requirements of the Health and Safety Code section 25356.1 and the detailed analysis of the alternatives using the nine criteria, the DTSC has determined that Alternative D3 is the proposed remedial alternative for the BCS site.

Alternative D3 proposes excavating approximately 3,200 cubic yards of soil that contains lead, PCBs, and petroleum hydrocarbons above cleanup levels, thereby reducing the

quantity of contaminants left at the site. Alternative D3 includes capping the site, ongoing groundwater monitoring and deed restrictions to limit the use of the property to commercial and industrial purposes. Alternative D3 also includes removing groundwater encountered during excavation, mitigating dust during construction, and decommissioning the on-site water supply well.

Soil with contaminants below the cleanup levels will be capped by buildings or pavement. Buildings will be constructed using concrete floors, or similar type of floor, which will prevent contact with the existing site soils. Alternatively, the site will be capped with 1 to 2 feet of imported soil. If either of these two alternatives for capping the site or a combination of these alternatives do not occur by March 1998, all currently unpaved areas will be covered with a cap comprised of 1½ to 2 inches of asphalt. All of the capping alternatives will provide equivalent or better strength and permeability properties when compared to the asphalt cap originally proposed in the Feasibility Study. Covering the site with imported soil or with asphalt will provide a similar level of protection for public health and the environment. The purpose of cap is to preclude human contact with contaminated soil, limit infiltration of precipitation through contaminated soil, and prevent migration of dust from the site. Existing concrete that is removed during site construction will be appropriately characterized and disposed.

The capping of the site will occur after the excavation of the impacted soil is completed. It is the goal of Barbary Coast Steel to have the site capped by June 1997. The Consent Order stipulates that the remedial actions be completed within five years of the date the Order was issued (page 21, lines 21 through 24 of the Order). The Order was issued in March 1993; therefore the capping will need to be completed by no later than March 1998. Although it is the goal of Barbary Coast Steel to have the capping completed as soon as feasible after the excavations are completed, Barbary Coast Steel is committed to having the capping completed by no later than March 1998.

Groundwater monitoring for lead, petroleum hydrocarbon compounds, and PCBs will be performed via a system of wells installed upgradient and downgradient from contaminated or uncontaminated areas of the site. Groundwater monitoring will be conducted until statistical evaluation, typically after 5 years of monitoring, indicates the required level of groundwater quality has been achieved. However, groundwater at the site is not a current or potential future drinking water source. Therefore, groundwater monitoring will be used primarily to establish a statistical trend for the site and to determine any present or future groundwater requirements. Groundwater monitoring will provide both short- and long-term protection of human health and the environment.

This alternative provides the greatest overall protection of human health and the environment, complies with all regulatory requirements for the site, permanently removes and reduces the quantity of contaminants at the site, and is easy to implement. Alternative D3 was selected, even though it is estimated to be more expensive than

Alternative E. The higher costs are justified because it can be achieved in a shorter time frame and it has a significantly higher probability of success than Alternative E.

Table 1

Summary of Chemicals Detected in Soil[1]
Barbary Coast Steel
Emeryville, California

Analyte	Minimum Concentrations	Maximum Concentrations (location)	Background[2]
Petroleum Hydrocarbons			
Diesel	<1.0	28,000 to 29,000 (MW-17, BC-4)	---[3]
Fuel oil #6 (Bunker C)	ND	ND	---
Hydraulic oil	<5	11,000 (TS-1, BC-4)	---
Jet fuel	ND	ND	---
Kerosene	ND	ND	---
Mineral spirits	<1	140 (BC-6)	---
Oil and grease	<10	3,680 (HW-7-1)	---
TPHCs[5] as gasoline	<1.0	490 (B-3)	---
Inorganics/Metals			
Aluminum	4696.3	9175.1 (1787-5A)	5-10%
Antimony	<4.3	528 (SB-38)	1.3
Arsenic	0.25	86 (HW-11-1)	10
Barium	7	1,503.9 (FT-7)	1,000
Beryllium	ND[4]	ND	1
Cadmium	0.62	849 (SB-9)	---
Chromium	3.4	2,557 (FT-2)	500
Cobalt	<1.2	78 (SB-34)	70
Copper	13	5,770 (SB-1)	50
Iron	7,938.4	75,240.6 (1787-1A)	---
Lead	2.7	19,900 (SB-53)	150
Manganese	155.8	94,995.8 (FT-3A)	---
Mercury	<0.2	3.1 (MW-9)	1.3
Molybdenum	<1.0	63.2 (1787-5A)	3
Nickel	4.0	4,890 (W2)	150
Selenium	<1	1 (SB-10)	0.7
Silver	<0.4	49 (SB-9)	---
Thallium	<1	186.1 (W2)	---
Tin	<2.0	637 (SB-30)	5
Vanadium	<1.0	283 (SB-45)	300
Zinc	11	98,000 (SB-9)	300
Pesticides and Polychlorinated Biphenyl Compounds---			
4,4`-DDE	<0.01	55.6 (BC-4)	---
4,4`-DDT	<0.01	6.3002 (BC-4)	---
Aroclor 1260	<0.1	140 300(BC-4)	---
Endrin	<0.01	4.2 (BC-4)	---
Endrin aldehyde	<0.01	0.1 (BC-9)	---
Endosulfan II	<0.01	11 (BC-4)	---
Heptachlor epoxide	<0.01	0.3 (P-1)	---

Table 1

Summary of Chemicals Detected in Soil[1]
Barbary Coast Steel
Emeryville, California
(continued)

Analyte	Minimum Concentrations	Maximum Concentrations (location)	Background[2]
Volatile Organic Compounds			
Acetone	<0.050	0.140 (SB-56)	---
Benzene	<0.005	0.210 (HW-9-1A)	---
2-Butanone	<0.010	0.039 (SB-57)	---
Carbon disulfide	<0.005	0.010 (SB-56)	---
Dichloromethane	<0.010	0.095 (SB-56)	---
Ethylbenzene	<0.005	9.5 (BC-4)	---
Methylene Chloride	<0.005	0.095 (SB-56)	--
Tetrachloroethene	<0.005	0.610 (HW-7-1)	---
Toluene	<0.005	19 (BC-4)	---
Trichloroethene	ND	0.0075	---
Xylenes (total)	<0.005	83 (BC-4)	---
Semivolatile Organic Compounds			
2- Methylnaphthalene	<0.3	160 (BC-4)	---
Acenaphthene	<0.3	130 (BC-4)	---
Acenaphthylene	<0.05	0.72 (HW-11-3)	---
Anthracene	<0.3	470 (BC-4)	---
Benza(a)anthracene	<0.3	23 (P-3)	---
Benzo(a)pyrene	<0.3	10 (P-3)	---
Benzo(b)fluoranthene	<0.3	18 (P-3)	---
Benzo(g,h,i)perylene	<0.3	4 (P-3)	---
Benzo(k)flouranthene	<0.3	14 (P-3)	---
Bis-(2-ethylhexyl)phthalate	<0.3	8 (BC-10)	---
Chrysene	<0.3	82 (BC-4)	---
Di-n-butyl phthalate	0.10	0.10[6]	---
Dibenzofuran	<0.3	88 (BC-4)	---
Fluoranthene	0.15	190 (BC-4)	---
Fluorene	<0.05	150 (BC-4)	---
Indeno(1,2,3-cd)pyrene	<0.3	4 (P-3)	---
N-Nitrosodiphenylamine	<0.3	83 (BC-4)	---
Naphthalene	<0.3	290 (BC-4)	---
Phenanthrene	<0.3	420 (BC-4)	---
Pyrene	0.13	140 (BC-4)	---

1. All chemical concentrations and criteria are expressed in milligrams per kilogram or parts per million.
2. Background metals levels are from Element Concentrations in Soils and Other surficial Materials of the Conterminous United States, U.S.G.S., Paper 1270.
3. --- indicates no background level available.
4. ND = Not detected.
5. Total petroleum hydrocarbons.
6. This analyte was detected in only one sample.
7. Detection limit for this analyte in sample BC-4 is elevated (<2.5 mg/kg) due to matrix interference.

Table 2

Summary of Chemicals Detected in Groundwater
Barbary Coast Steel
Emeryville, California

Analyte	Minimum Concentration	Maximum Concentration (location)
Petroleum Hydrocarbons (µg/L)[1]		
Diesel	<50	560,000 (MW-4)
UHBPHCs[2]	<200	49,000 (MW-4)
Jet fuel	ND[3]	ND
Kerosene	ND	ND
Mineral Spirits	ND	ND
Gasoline	<50	1800 (MW-2)
Benzene	<0.5	9.9 (MW-15)
Toluene	<0.5	56 (MW-15)
Ethylbenzene	<0.5	12 (MW-15)
Xylenes	<0.5	100 (MW-15)
Inorganics/Metals (mg/L)[4]		
Antimony	<0.05	0.168 (MW-5)
Arsenic	<0.005	0.267 (MW-5)
Barium	<0.005	5.37 (MW-5)
Beryllium	<0.005	0.02 (MW-4)
Cadmium	<0.003	0.196 (MW-5)
Chromium (total)	<0.005	1.42 (MW-14)
Cobalt	<0.01	0.241 (MW-4)
Copper	<0.01	21.8 (MW-5)
Lead	<0.002	18.1 (MW-5)
Mercury	<0.0005	0.152 (MW-2B)
Molybdenum	<0.01	0.107 (MW-15)
Nickel	<0.01	1.7 (MW-5)
Selenium	<0.005	0.02 (MW-8)
Silver	<0.01	0.039 (MW-5)
Thallium	ND	ND
Tin	<0.05	1.05 (MW-5)
Vanadium	<0.01	0.701 (MW-14)
Zinc	<0.005	41.1 (MW-5)
Polychlorinated Biphenyl Compounds (µg/L)[5]		
Aroclor 1016	ND	ND
Aroclor 1221	ND	ND
Aroclor 1232	ND	ND
Aroclor 1242	ND	ND
Aroclor 1248	<0.2	16 (MW-5)
Aroclor 1254	<0.2	4.9 (MW-15)
Aroclor 1260	<0.2	73 (MW-5)

1. All petroleum hydrocarbon concentrations are expressed in micrograms per liter or parts per billion.
2. Unidentified high-boiling-point hydrocarbons.
3. ND = Not detected.
4. All inorganic/metal concentrations are expressed in milligrams per liter or parts per million.
5. All PCB concentrations are expressed in µg/L.

Note: Maximum concentrations based on quarterly groundwater monitoring through August 1995.

Table 3

Estimated Risk for Construction Workers

Chemical	Inhalation		Oral		Dermal		Total	
	Non Cancer	Cancer	Non Cancer	Cancer	Non Cancer	Cancer	Non Cancer	Cancer
Antimony	NC	NA	3.98×10^{-2}	NA	1.26×10^{-3}	NA	4.11×10^{-2}	NA
Arsenic	1.02×10^{-1}	7.80×10^{-7}	4.17×10^{-2}	NA	1.32×10^{-3}	NA	1.45×10^{-1}	7.80×10^{-7}
Cadmium	2.56×10^{-2}	5.77×10^{-7}	4.40×10^{-2}	NA	2.78×10^{-3}	NA	7.24×10^{-2}	5.77×10^{-7}
Chromium	2.66×10^{-5}	NA	2.29×10^{-4}	NA	7.23×10^{-5}	NA	3.28×10^{-4}	NA
Copper	8.42×10^{-1}	NA	1.34×10^{-2}	NA	4.24×10^{-4}	NA	8.56×10^{-1}	NA
Lead	13.47 mg/dl [1]	NA	2.50 mg/dl [1]	NA	0.51 mg/dl[1]	NA	1.65[3]	NA
Mercury	9.43×10^{-3}	NA	2.329×10^{-3}	NA	7.32×10^{-4}	NA	1.25×10^{-2}	NA
Molybdenum	NC (2)	NA	(2)	NA	(2)	NA	(2)	NA
Nickel	1.93×10^{0}	NA	5.69×10^{-3}	NA	3.60×10^{-4}	NA	1.94×10^{0}	NA
Silver	NC	NA	6.43×10^{-4}	NA	2.03×10^{-5}	NA	6.63×10^{-4}	NA
Tin	NC	NA	7.29×10^{-5}	NA	2.29×10^{-6}	NA	7.52×10^{-5}	NA
Zinc	6.67×10^{-1}	NA	2.86×10^{-2}	NA	9.04×10^{-4}	NA	6.97×10^{-1}	NA
PCBs	5.57×10^{-2}	NA	NA	1.72×10^{-7}	NA	3.27×10^{-7}	5.57×10^{-2}	4.99×10^{-7}
TOTAL	3.64×10^{0}	1.36×10^{-6}	1.76×10^{-1}	1.72×10^{-7}	7.87×10^{-3}	3.27×10^{-7}	3.82×10^{0}	1.86×10^{-6}

NA = Not applicable
NC = Not calculated, toxicity criteria unavailable
[1] Lead evaluated separately, units are micrograms lead per deciliter blood, see text.
[2] Insufficient data, chemical detected only once in surface sampler.
[3] Total risk for lead determined by the sum of individual blood lead levels divided by 10 micrograms per deciliter.

Table 4

Comparison of Remedial Alternatives

ALTERNATIVE	A	B	C	D1	D2	D3	E
Soil	No Action	Capping	Capping and Baghouse Soil Removal	Capping and Alternative C and Hot Spot Removal			Capping and TPH Treatment
		Dust mitigation, deed notice, capping	excavate and dispose of soil near the baghouse	excavate and dispose of PCB hot spot	excavate and dispose of PCB and lead hot spots	excavate and dispose of PCB, lead, and TPH hot spots	excavate hot spots, treat TPH on-site and reuse, dispose PCB and lead waste off-site
Groundwater	Quarterly monitoring	Monitoring plus well decommissioning	Same as Alternative B	Same as Alternative B	Same as Alternative B	Same as Alternative B	Same as Alternative B
Evaluation Criteria[1]							
1. Overall Protection of Human Health and Environment	Low (1)	Medium (2)	Medium (2)	High (3)	High (3)	Very High (4)	Medium (2)
2. Compliance with State and Federal Regulations	Low (1)	Low (1)	Low (1)	Medium (2)	Medium (2)	High (3)	High (3)
3. Long Term Effectiveness and Permance	Low (1)	High (3)	High (3)	High (3)	High (3)	Very High (4)	High (3)
4. Reduction of Toxicity, Mobility, or Volume through Treatment	Low (1)	Medium (2)	Medium (2)	Medium (2)	High (3)	Very High (4)	Medium (2)
5. Short-Term Effectiveness	Medium (2)	High (3)	High (3)	High (3)	High (3)	High (3)	Low (1)
6. Implementability	Low (1)	High (3)	High (3)	High (3)	High (3)	High (3)	Low (1)
7. Cost[2]	$0.216	$1.546	$2.010	$2.072	$2.153	$3.065	$2.816
8. Regulatory Agency Acceptance	Low (1)	Low (1)	Low (1)	Low (1)	Medium (2)	High (3)	Medium (2)
9. Community Acceptance	Low (1)	Low (1)	Low (1)	Low (1)	Medium (2)	High (3)	Low (1)
Total Score	9	16	16	18	21	27	15

1 The nine evaluation criteria are from the National Contingency Plan.
2 Costs are 1995 dollars, in millions.
3 Very High (4); High (3); Medium (2), Low (1). The degree of confidence that criterion will be achieved. The numerical values assigned provide a means to collectively evaluate each of the remedial alternatives.

152753

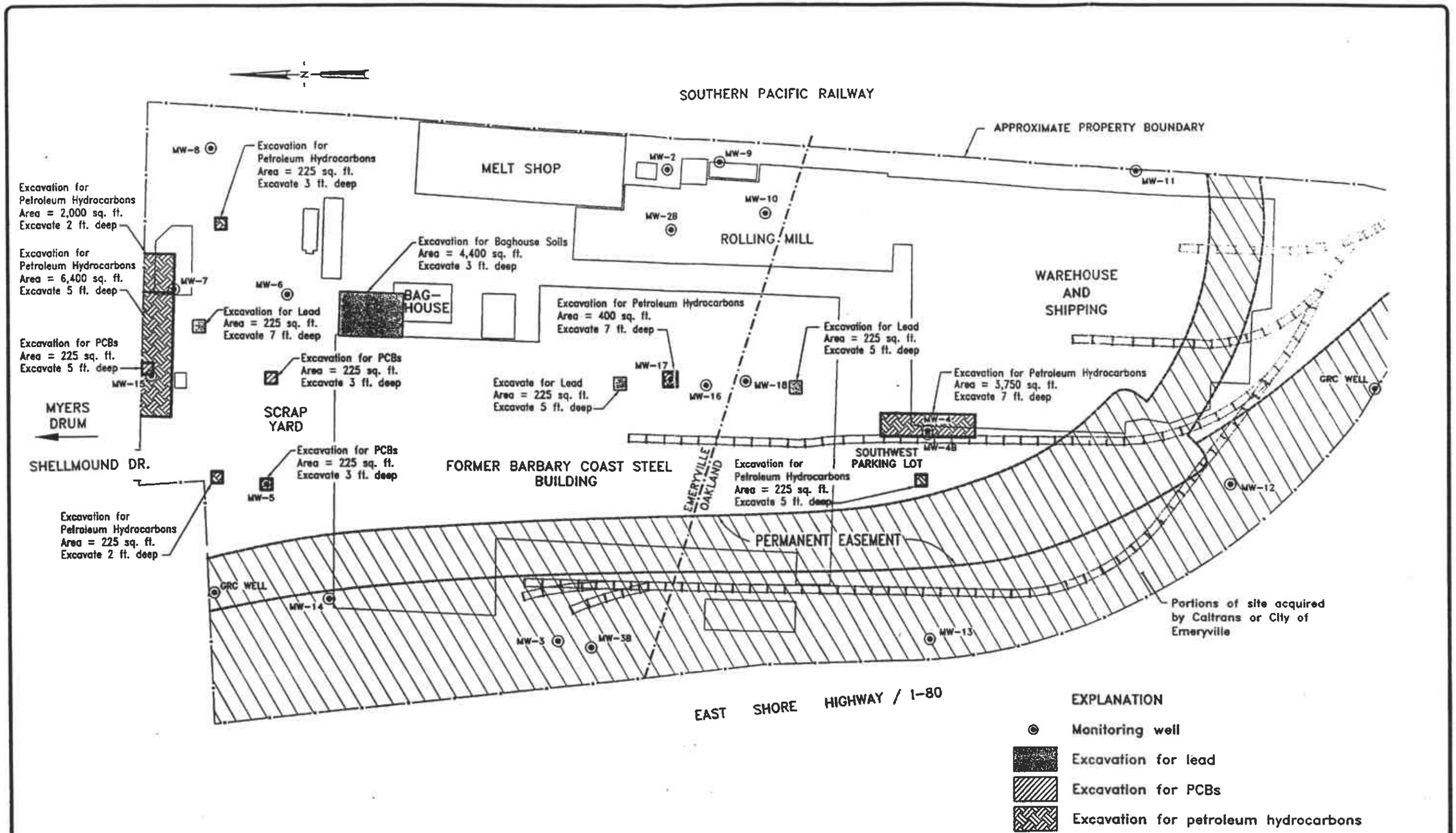
EMCON

BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, CALIFORNIA

SITE LOCATION

FIGURE
1

PROJECT NO.
G01-01.11



EMCON

SCALE: 0 125 250 FEET

BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, CALIFORNIA

SITE PLAN WITH EVALUATED EXCAVATION AREAS

FIGURE NO. 2

PROJECT NO. G01-01.11

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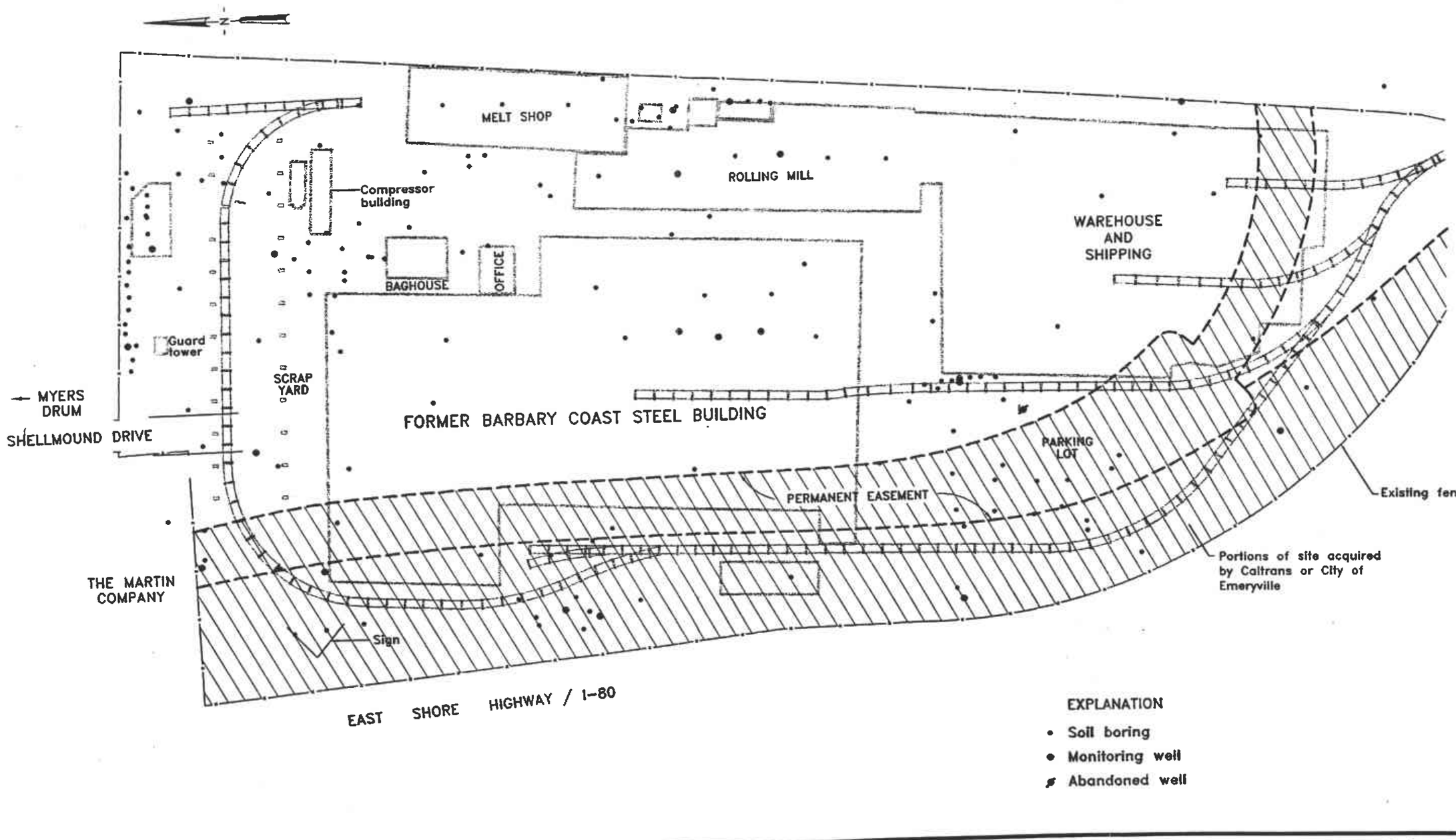

EMCON

SCALE: 0 125 250 FEET

BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, CALIFORNIA

SAMPLING LOCATIONS

FIGURE NO.
3
PROJECT NO.
G01-01.11

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APPENDIX A

RWQCB LETTER

STATE OF CALIFORNIA
PETE WILSON, Governor
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, Suite 500
OAKLAND, CA 94612
Tel: (510) 286-1255
FAX: (510) 286-1380

Mr. Ted Park
DTSC, Region 2
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

September 15 , 1995
File No.: 2223.09(SA)
NBT Case File

Subject: Barbary Coast Steel, Emeryville, Alameda County

Dear Mr. Park:

Regional Board Staff reviewed your letter, dated August 17, 1995, and the report *Soil Cleanup Levels For High-Boiling-Point Petroleum Hydrocarbons*, dated August 1995 regarding the subject site. Board Staff met with you and Mr. David Wright, on April 17, 1995, to discuss the management of petroleum hydrocarbon impacted soils on the subject site. At the meeting, Board Staff were requested to evaluate the potential threat to water quality in the event that the petroleum hydrocarbon impacted soils at the site were capped in place and managed. Board Staff have subsequently reviewed several reports, prepared by Emcon Associates, regarding the subject site.

The soils at the subject site is polluted with high boiling petroleum hydrocarbons known as bunker C fuel oil at concentrations up to 17000 ppm. However, the soil samples do not indicate the presence of VOCs or PAHs, and there appears to be no groundwater pollution associated with the bunker C fuel oil. There are limited zones of petroleum hydrocarbon pollution in soil and groundwater, associated with the former USTs. The minimum time for the petroleum hydrocarbons on site to reach the San Francisco Bay was estimated to be 1.39E+05 years. Based on the relatively non-toxic and non-mobile nature of the petroleum hydrocarbons a health based soil cleanup level of 26,260 ppm has been proposed.

I understand the entire site will be capped prior to future redevelopment at the site. Based on the information presented in the reports, we concur that the soils polluted with the bunker C fuel oil can be managed, by capping them in place, without posing a threat to the groundwater and the San Francisco Bay. Board Staff recommend the following:

1. An overall site wide risk management plan should be developed and implemented that includes a groundwater monitoring plan, contingency options, management measures such as deed notifications/ restrictions, Site operation and maintenance, health and safety plans, utility worker notifications etc.

Barbary Coast Steel
Emeryville, Alameda County

2. Evaluate the feasibility of implementing a passive bioremediation program at the site, and if applicable, include such a program in the overall site wide risk management plan.

3. Removal of any soil pollution sources in the vicinity of the former UST areas.

4. Closure of all potential vertical conduits such as the process water supply well.

5. Constituents detected in groundwater samples from MW-15 do not appear to be present else where on site. Analyze and compare the constituents detected in groundwater samples from MW-5 with those of MW-15. Similarities in the analytes indicate potential migration of groundwater pollutants, and should be accounted for in the contingency options.

Please contact Sumadhu Arigala at (510) -286-0434, if you have any questions regarding this letter.

Sincerely,
Lawrence P. Kolb,
Acting Executive Officer

Stephen Morse,
Chief, Toxics Cleanup.

CC: Susan Hugo, ACDEH
1131 Harbor Bay Pkwy, 2nd Floor
Alameda, CA 94502-6577

Mark Smolley
Emcon Associates
1921 Ringwood Avenue
San Jose, CA 95131-1721

APPENDIX B

RESPONSIVENESS SUMMARY

A copy of the final RAP and other site-related documents are available for review at:

California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710
File Room: (510) 540-3800
Hours: Monday through Friday, 8 a.m. to 5 p.m. by appointment only.

Oakland Public Library
Golden Gate Branch, Reference Desk
5606 San Pablo Avenue
Oakland, California 94608
(510) 597-5023

II. Comments and Responses

Public comments and questions on the Draft RAP were primarily received at the public meeting. DTSC also received three letters commenting on the Draft RAP. The comments from the public meeting and from the three letters are addressed separately in this Response to Comments.

a) Responses to the questions from the public meeting

The questions from the public meeting are listed below with responses. The last name of the commenters and the page where their comments appear in the meeting transcript are identified in parenthesis at the end of the comment.

Question 1: How many monitoring wells do you have to leave on-site and how long do you have to keep them there and how often do you have to report? (Gerber, page 20)

Response 1: The number of monitoring wells and their locations will be specified in the Remedial Design Implementation Plan. At this time it is anticipated that between three to six wells will continue to be monitored at the Site. Groundwater monitoring will be performed until a statistical trend of groundwater conditions can be established. It is anticipated that groundwater monitoring will be required for at least five years. The schedule for submitting monitoring reports will be presented in the Remedial Design and Implementation Plan. Quarterly monitoring and reporting has been conducted for more than two years. The monitoring and reporting may continue on a quarterly basis or may be reduced to a semiannual or annual basis, based on the results of data review by DTSC.

Question 2: The profile of the wells, are they likely things you can design streets over?

(Northrup, page 21)

Response 2: The wells will be incorporated into the overall design of the property and will not limit use of the Site. Wells will be installed flush with the ground surface and will not impede development.

Question 3: Can you be a little more specific on capping? Is there an actual capping material that you are going to place first before the development goes on or is it just going to be development using the existing soils? (Chen, page 22)

Response 3: At the present time, approximately 77 percent of the Site is capped with asphalt or concrete. Only the remaining 23 percent needs to be capped with imported soil or buildings, pavement, and asphalt, which will be applied prior and during the site redevelopment process. If the property is not developed by March 1998, the area which was covered with imported soil will be capped with 1 1/2 to 2 inches of asphalt.

Question 4: So, the high density residential would be considered to be commercial as opposed to single family residence? (Chen, page 24)

Response 4: The cleanup standards for the site have been developed for commercial or industrial reuse of the Site, which closely approximates the high density residential exposure scenario. However, the cleanup levels do preclude single family residential development. The question of whether high density residential would be considered as commercial is a zoning issue to be taken up with the Cities of Emeryville and Oakland.

Question 5: On figuring out the contaminants travel times, did you use a fate and transport model? (Gerber, page 24)

Response 5: A fate and transport model was used to calculate the travel times. The model incorporated factors such as soil porosity, distance to the bay, groundwater velocity, and soil to water partition coefficients. The various compounds will migrate at different rates. The minimum travel time calculated was 4,000 years and times ranged up to several millions of years. The transport time evaluation is presented in Appendix C of the Feasibility Study for Remedial Action.

Question 6: What are the depths of excavation and volume of soil to be removed? (Chen, page 25)

Response 6: Excavation will be performed within several selected areas at the Site and material will be removed down to depths ranging between 3 to 7 feet. The total volume of excavated soil is estimated to be approximately 3,200 cubic yards. The areas of excavation and depth, and the volumes are shown of Figure 2 in the Final RAP.

b) Responses to the written comments

During the public comment period, DTSC also received three letters commenting on the Draft RAP from Myers Container Corporation, Birmingham Steel Corporation, which is a parent company of the Barbary Coast Steel, and from a law firm (Bell, Rosenberg & Hughes) representing Judson Steel Corporation. These letters are dated March 28, 1996, April 15, 1996, and April 17, 1996, respectively.

****Comments by Myers Container Corporation (By Dana Zanone):**

Comment 1: IMACC requested DTSC to enter their comment letter and documents cited into the Barbary Coast administration record.

Response 1: DTSC has entered the March 28 , 1996, Myers Container Corporation letter and cited documents into the Barbary Coast administrative record.

Comment 2: There were several comments and questions centered upon how DTSC intends to address alleged offsite contaminations between the Barbary Coast and Myers Drum sites and how DTSC would make this information available to the public.

Response 2: Both Barbary Coast and Myers have alleged and disputed that each one is the source of the other's contamination along their mutual boundary. DTSC understands that this boundary dispute as to the source, type and quantity of contamination is the subject of litigation. In an effort to progress on both the Barbary Coast and Myers remediations, DTSC has chosen to set consistent cleanup levels for both sites and require each site to be remediated to their respective property boundaries. As to making information submitted to DTSC available to the public, the administrative record of each site is in the File Room. The file can be reviewed by makingan appointment with the File Room staff.

Comment 3: There were several comments/requests concerning revising the NBAR (Non-binding Allocation of Responsibility) in the Draft RAP of both Barbary Coast and Myers Drum to reflect the information submitted on alleged offsite contamination sources.

Response 3: The comments are noted, but the NBAR will not be revised. As described in HSC Section 25356.1 (e), the sole purpose of the NBAR is to establish a preliminary allocation of potential liability so that the potential responsible parties (PRPs) with an aggregate allocation of in excess of 50 percent can convene arbitration if they choose. The NBAR is not binding on anyone, including PRPs, DTSC, or an arbitration panel. If a panel is convened, its proceedings are de novo and do not constitute a review of the NBAR.

****Comments by Birmingham Steel Corporation (By Barton Kale):**

Comment 4: Nature of the Cap - The Draft RAP states that if redevelopment of the site does not occur by March 1998, all currently unpaved areas will be covered with a cap comprised of 1.5 to 2.0 inches of asphalt (see page 6-6). However, based on the discussions with the developer of the property, Barbary Coast believes that the RAP should be revised to provide flexibility in the type of material that is used for construction of the cap. It is our understanding that the developer intends to raise the grade across the entire site by several feet, and that fill material (clay or soil) will be imported to accomplish this task. The fill will be graded and compacted as necessary for the site preparation. The compacted clay-soil layer will be approximately two feet thick, and will function as an effective cap on the site. It is also our understanding that any buildings and paved parking areas which are eventually constructed on the property would also function as a cap, irrespective of any underlying fill material.

Response 4: In anticipation that the site grade will be raised by several feet, DTSC does not oppose flexibility in selecting cap material. The cap material may be asphalt or any other material such as compacted clay or concrete. These materials should have equivalent strength and permeability to the asphalt cap. Particular care must be taken to design waterproof joints between dissimilar materials to impede infiltration. This change will be incorporated into the Final RAP. Whether the site redevelopment will occur by March 1998 should be decided before completion of backfilling of the excavated areas, so that installation of the cap will be completed without delay.

Comment 5: Non-binding Allocation of Responsibility - We believe that 14 % of the responsibility for site cleanup should be allocated collectively to IMACC and the other entities or individuals that owned or operated the Myers Drum Reconditioning Facility. This percentage represents the estimated cost of remediation an area along the northern boundary of the Barbary Coast site that has been impacted by migration of wastes from the IMACC site.

Response 5: See Responses 2 and 3 above.

****Comments by Judson Steel Legal Counsel (John H. Banister of Bell, Rosenberg & Hughes):**

Comment 6: Judson Steel objects to the non-binding allocation and requests DTSC delete Judson Steel from this listing since it was not named in the Consent Order and Barbary Coast has agreed to indemnify Judson Steel. What criteria is it using to make this allocation? IMACC is responsible for the contamination on the northern portion of the Barbary Coast property and should be included in any allocation of responsibility.

Response 6: Please refer to Responses 2,3 and 5 above. Health and Safety Code Section 25356.1 (e) requires DTSC to prepare a non-binding preliminary allocation of responsibility among all identifiable responsible parties, including parties that may have been released, or otherwise immune, from liability pursuant to this chapter or any other provision of law. DTSC

finds that Judson Steel is one of the responsible parties as a previous owner and operator of the Site and will remain listed in the NBAR. Health and Safety Code Section 25356.3 (c) sets forth the liability apportionment criteria to be used by the arbitration panel.

Comment 7: Excavation near IMACC Property Line - There are several reasons why the proposed depth excavation near the IMACC property line is undesirable, including: 1) inducing additional IMACC contaminants to flow onto the Barbary Coast property, 2) difficulty in excavating below the water which is only about 2 to 3 feet below grade in this area, 3) added expense (about $500,000) for no perceptible environmental benefit, 4) potential damage to the IMACC process building, and 6) immediate recontamination of clean fill placed below the water table. Under the circumstances, it appears this proposed work has no technical justification.

Response 7: Excavation near the Myers property line is necessary because the soil in this area is contaminated above the soil cleanup levels and is the source of the groundwater contamination. Both DTSC and RWQCB are requiring that the source material be removed and that a hydraulic barrier be installed over the site such as a clay or asphalt cap. Excavation will be slightly below the groundwater table and there will be no technical difficulties in doing so. The remedial plan should be designed to minimize the potential flow of groundwater from the Myers site into the excavation. The groundwater encountered during excavation will be pumped before backfilling. This will result in improvement of the groundwater quality in this area. The Myers process building will eventually be demolished during the Myers remedial activities and damage is therefore not a concern.

Comment 8: Hot Spot Removal - We see the removal of some of the "hot spot" soil at other locations as appropriate. It should be noted that the soil above the water table is generally not significantly contaminated. We are concerned that the amount of soil removal and disposal may increase as these areas are excavated. Also, some of these hot spots seem to have been selected and sized based on only one data point. Also, the Plan does not deal with the disposition of the many concrete slabs and foundations on the Barbary Coast property. We suggest that concrete be crushed and used as aggregate fill on the site, unless the site filling option discussed below is adopted.

Response 8: The general horizontal and vertical limits of the excavations have been estimated by previous assessment work and were described in the Draft RAP. The final limits of all excavations will be based on results of the confirmation soil sample. Therefore, the final excavation limits in the field may increase or decrease. Some of the concrete slabs will have to be removed prior to the soil remediation activities. Any concrete that needs to be removed will be appropriately characterized before disposal according to the sampling plan that is acceptable to DTSC. The clean concrete will be crushed and recycled for use as a roadbase or disposed offsite. Any contaminated concrete will be disposed at an appropriate disposal facility.

Comment 9: Asphalt Pavement Cap - We do not agree the selection of 1.5 to 2 inches of asphaltic concrete as a cap for the Barbary Coast site. This thin cap does not provide protection

for workers (current or future) encountering the soil, while excavating for grade beams and utility trenches. Utility trenches at typical depths could alter the patterns of shallow groundwater flow, taking contaminants to new places.

Response 9: The RAP requires all soil "hot spots" to be removed that threatens groundwater contamination and human exposure. The purpose of the cap is to preclude human contact with residual contaminated soil, limit infiltration of precipitation through contaminated soil and prevent migration of dust from the site. Furthermore, deed restrictions will be placed on this property requiring a workplan and health and safety plan, and approval from DTSC prior to cap alteration for any construction purpose.

Comment 10: Remedial Option - In summary, the remedial plan for the Barbary Coast property could be the following: 1) Limit the soil removal actions to the soil zone above the water table (about 2 feet below grade), and 2) Place and compact 3 to 5 feet of clean imported fill over the entire site, leaving most of the existing concrete slab and foundations in place. This plan would cost between $500,000 to $800,000 as opposed to the approximate $3 millions under the proposed plan. Despite this cost difference, the end result would be almost identical.

Response 10: As explained in Response 7 above, the removal of the contaminated soil which is a source of groundwater contamination will be necessary in order to comply with the RWQCB and DTSC requirements. Otherwise, a long term groundwater pump and treatment system may be required. At some areas, excavation may extend to slightly below the water table to satisfy the soil cleanup goals. Also, in Response 4, flexibility in selecting the cap material was discussed in expectation that the site grade may be raised by several feet. The final grade will be determined by the final site development plan in conformation with the City of Emeryville Redevelopment Agency's general plan.

STATE OF CALIFORNIA - ENVIRONMENTAL PROTECTION AGENCY

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

REGION 2

BARBARY COAST STEEL SITE
DRAFT REMEDIAL ACTION PLAN

REPORTER'S TRANSCRIPT OF PROCEEDINGS

PUBLIC MEETING

TUESDAY, APRIL 2, 1996

Emeryville, California

Reported by: MARK I. BRICKMAN, CSR, RPR
License No. 5527

A P P E A R A N C E S

The Panel:

CAROL NORTHRUP
Public Participation Coordinator
Department of Toxic Substances
Control - Region 2

STEVE CIMPERMAN
Site Mitigation Unit Chief
Department of Toxic Substances
Control - Region 2

TED PARK
Barbary Coast Steel
Department of Toxic Substances
Control - Region 2

MARK SMOLLEY
Project Engineer
EMCON Associates

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BE IT REMEMBERED that, pursuant to Notice of the Meeting, and on Tuesday, April 2, 1996, at the hour of 7:05 p.m., at Emeryville, California, before me, MARK I. BRICKMAN, CSR No. 5527, State of California, there commenced a meeting set forth under the provisions of the Department of Toxic Substances Control.

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I N D E X

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MS. NORTHRUP: Let's go ahead and get the meeting underway. For those of you who I haven't met, my name is Carol Northrup. I am a public participation coordinator for the California Environmental Agency, Department of Toxic Substances Control and I will be the moderator for tonight's meeting.

This is a meeting about the Barbary Coast Steel site. We've reached a milestone in the cleanup of this site called the Remedial Action Plan, Draft Remedial Action Plan which has been out for public comment, and the comments are due -- what's the last date of the comment period?

MR. PARK: April 17th.

MS. NORTHRUP: April 17th for this site.

With me tonight is Steve Cimperman. He's a unit chief for the Toxics Department and a supervisor for this project.

The project manager sitting next to him, that's Ted Park. He's been involved with the technical details of this site for quite sometime.

And then Mark Smolley from EMCON Associates.

What we intend to do, the agenda's very -- fairly short. We will all only talk for maybe twenty-ish minutes.

Steve's going to step you through the process so you understand the process that we have to go through on any Draft Remedial Action Plan to clean up the site.

Ted will then describe some of the site history and the background, and then Mark will talk more specifically about

the -- the actual Draft Remedial Action Plan.

The purpose of this meeting is to take your comments on the Draft Remedial Action Plan and the CEQA Negative Declaration.

For the California Environmental Quality Act, we have to put out some kind of environmental document. In this case, we made a determination that doing the project -- in other words, cleaning up the site -- would not cause any significant adverse impacts.

Thus a Negative Declaration was prepared, and we're accepting comments on that, as well.

A little bit more about the meeting format. Once we're through with our presentations, we will take comments from the floor.

What I will ask you to do is come to the podium. We have a court reporter here who will prepare a transcript for this hearing.

That and any correspondence we get, any written comments we get will all go into a responsiveness summary, both the questions and then our responses to that.

So the transcript will become part of the formal record for our administrative decision-making process.

So if you can come up and speak from the podium and state and spell your name so we can get that accurately, we would appreciate it.

I don't think we're going to have trouble with time. I -- I generally ask people to keep it to five minutes or so. I think if we all went on for thirty minutes, we would all get out of here.

There were a number of handouts at the sign-in table. First is the fact sheet that generally describes much of the information that we'll go over here tonight, and then there are copies and three different versions of the various presentation materials that we'll be using tonight so you can follow along and make notes on that.

The one with the little bitty slides is Ted's presentation, and then the larger one with two per page is -- is what Mark will be talking about.

Finally, there's an evaluation and comments form. The evaluation is about the meeting, how we can run these meetings more effectively, and the back, if you're -- if you're inspired tonight to scribble down some comments for the record and want to give them to us instead of going back to the computer and writing a letter, go ahead and do that and we'll include that as part of the record.

Information about this site is available in the repositories listed in the fact sheet and also in our office. Since we're right down the street just a little bit, that could be just as easy.

After tonight's meeting, if you have some questions,

you can look in the repository or you can call Ted. His number's in the fact sheet, as well and he can provide you with whatever kind of clarifying information you need to be able to focus your comments.

So with that, I think we'll just go into Steve's description of the process.

MR. CIMPERMAN: Thanks, Carol.

MS. NORTHRUP: Uh-huh.

MR. CIMPERMAN: Good evening. I'm Steve Cimperman, and as Carol mentioned, I'm a chief for the Department on the site, and this is a overhead of the process.

As you can see, the process takes us from site discovery to a cleaned up site. This happens to be our office at 700 Heinz.

The first step of the process is site discovery. That can happen in several different ways. The Department can become aware of a site because of a local agency can call in, another State agency or an actual company could volunteer to come in and wish to have our oversight and a cleanup for the purposes of primarily getting a certification at the end to allow for development.

The first step -- the next step in the process is preliminary endangerment assessment. This is where we try to answer a couple questions.

One is does the site present a public health threat, and if it does, is it a site that the Department should be dealing with versus another local agency or State agency.

If we find the answer to those questions are both yes, well then we talk to the responsible party, try to enter into an agreement to clean up the site, and that can be a voluntary agreement or it can be enforcement orders.

Then the next two steps in the process are Remedial Investigation and Feasibility Study, and they are generally done together.

The RI is where we go out and we investigate the site and try to determine what the contaminants are, try to identify what the problem is at the site and feasibility study is where we generate a number of alternatives or possible solutions.

A large part of the Remedial Investigation/Feasibility Study is the Risk Assessment, and that's where we try to determine what are the risks at the site and answer basically two questions, which are what are the risks as the site sits and what -- how much do we need to clean up to reach an acceptable risk to public health and the environment.

After we've determined in the Remedial Investigation the -- the contamination and the types of chemicals there, we -- and we've gone through the Feasibility Study where it explains -- where we've generated a number of solutions, then we compare that to a list of criteria that the Federal and

State law requires us to compare all solutions with.

The first two criteria is -- are to protect public health and the environment and the second is to comply with all environmental laws.

There's basically a two-pronged approach, and all the criteria have to pass those two. If it's not protective of the environment and meet all the regulations, then it's not a real viable solution.

If a alternative passes through that, then we balance it against the next five criteria, and if -- if you can have two, say, alternatives that are effective in the long-term and the short-term and reduce toxicity, mobility and volume and can be implemented and if one is a little bit less expensive than the other, we'll go with the less expensive and try to make it cost-effective, and as you can see at the bottom here, there's a community acceptance.

We try to judge that during the public comment period and during a public meeting and any comments will help -- will be inputted into the process.

So -- so after we've generated the -- the solutions, we compare -- compare those with the criteria, then we develop what we consider to be the best alternative. We propose that in a Remedial Action Plan, and along -- once we've prepared that Remedial Action Plan, we also prepare a CEQA document, which Carol mentioned, and in this case, a Negative Dec

where -- Declaration we mention -- where we found that the implementation of the proposed solution to the site doesn't present a significant impact to the environment.

And then -- so once we have a RAP, a Draft RAP together and a Draft CEQA document together, we public notice it for thirty days, and as I believe Carol mentioned it, the end of the public comment period at this site is April 17th, and in the middle of that -- somewhere in the middle, we have a public meeting. That's where we are right now.

After we receive all the public comments and we -- we may then incorporate those into the RAP. We finalize the RAP, we approve it. We go into a design.

This is the engineering design phase where we do all the engineering work, also put together public health and safety plans, put in transportation plans, any plans to protect the public health and safety during the actual implementation, and then after that's approved, the back hoe here I guess symbolizes actually going out and turning dirt and maybe demolishing a building, scooping up soils, doing any type of on-site treatment.

That's all done over the -- under the oversight of the Department, and at the end of the implementation once all the reports come back in that show that the site was cleaned up as published in the Remedial Action Plan, then we certify the site.

Now, certification becomes -- basically there's two types of sites -- sites and one is where you clean up all the soil and there's absolutely no restrictions, completely clean, and in that case, you get the certification and then the -- the owner of the property can do whatever they would like with it.

But most sites, there is some contamination left on the site. There may be groundwater treatment. There may be a fencing that's required or some sort of a cap that's required, and in that situation, we enter into a long-term operation and maintenance agreement with the responsible party to maintain the site and make sure that it's protective of public health and safety for as long as necessary.

So that's -- that's basically the ov -- the process. We -- and to summarize, we discover a site, we determine if it's a threat to public health and if we should be dealing with the site.

We enter into an agreement with the responsible party to conduct investigation and determine what the problems are at the site, develop solutions to that, do an analysis to determine what the best alternative should be.

We publish that for thirty days in a public comment period, take -- take comments, finalize a plan, design it, implement it, certify it, and if there's waste left on-site, enter into an operation and maintenance agreement.

That's simply it.

That's the end of my presentation. I -- I'll turn it over now to Ted. He'll go over -- give you a brief oversight of the Department's involvement and the history of the site.

MR. PARK: Good evening.

My name is Ted park. I'm a project officer for the Department of the Barbary Coast site.

I would briefly describe the site history and our Department involvement so you -- you can have a quick overview of the site.

The site is located at 4300 Eastshore Highway in Emeryville. This is the green borderline and this is Highway 80, this is 580 and Holiday Inn is right here.

And the site is about twenty-four acre site and it's about half mile east of San Francisco Bay.

The -- originally the western portion of the site was part of the bay until 1911. Since then, the entire shoreline of Emeryville has been progressively extended toward the bay by the importation of fill. Highway 80 was constructed in 1954.

The site is underlaid by an artificial fill which consists of a mixture of gravel, clay and sand and also the industrial waste material such as slag.

Approximately from 19 -- 1882 to 1987, Judson Steel operated a steel manufacturing plant at the site producing a steel reinforcing bars from the scrap iron.

Barbary Coast purchased the site from Judson Steel in

18 -- 1987 and continued to operate the plant until 1991 when the plant was closed.

During the period of 1987 until 1990 -- one more thing I forgot to tell is Caltrans acquired a portion of the Barbary Coast site to reroute the Highway 80 which is under construction right now and the City of Emeryville also acquired a portion of the site to extend the existing Shellmound Street.

During 1987 to 1991, Barbary Coast conducted several environmental investigation, and in 1992, Caltrans did some testing along the line of new highway, and the result indicate that site was contaminated.

Consequently our Department issued a Consent Remedial Action Order in 1993 declaring Barbary Coast to perform a detailed investigation at the site to determine the character and the extent of contamination at the site and provide with a feasible remedial alternative to clean up the site.

Under our Department oversight, Barbary Coast performed a Remedial Investigation Study during 1993 and '95 and the results indicate that the site soil was contaminated mostly with lead and petroleum hydrocarbons and PCBs in localized areas. The groundwater is also contaminated slightly.

At the same time period, a Risk Assessment Analysis was -- was also performed to determine a potential threat to the public health and the environment associated with the site

contamination, and based on the Remedial Investigation and Risk Assessment Analysis, a Feasibility Study was done to identify several cleanup alternatives.

Several cleanup alternative was considered and evaluated in FS study, and the one proposed remedial alternative was selected.

The proposed remedial alternative is to excavate the contaminated soil with -- with PCB, lead and petroleum hydrocarbon as diesel and backfill with clean soil and cap the site with asphalt paving.

Groundwater will be monitored on a long-term basis to establish a trend of groundwater conditions and to see whether there's any significant change that may require corrective action.

Last month, we issued Draft Remedial Action Plan summarizing the result of RI/FS study and presenting a proposed remedial alternatives.

We also prepared a Proposed Negative Declaration indicating that there will be no significant adverse environmental impact during implementation of proposed remedial action.

These two documents will be finalized after we incorporate public comments.

The public comment period started last March 18th, will be ending on April 17th. Any comments, you can send to me

under my name to our Department.

That's where we are now, and Mark Smolley, the consulting engineer for Barbary Coast, will give you a little more detailed presentation regarding the Draft Remedial Action Plan.

MR. SMOLLEY: Good evening.

As Ted said, I'd like to describe a little bit more as to what's contained in the Remedial Action Plan that we've prepared for the site.

A brief history as to what went into the Remedial Action Plan. We did a Remedial Investigation at the site where we conducted interviews, we reviewed aerial photographs, we reviewed site plans in order to come up with areas where any compounds may have impacted the site.

Based on that site history, we submitted an Investigation Work Plan to the Department of Toxic Substances; they reviewed that information.

We then proposed soil and groundwater sampling to address any of the potential issues that we had at the site.

Soil sampling. We conducted an extensive investigation at the site -- let's turn it right side up. This map shows the locations where we have done soil or groundwater sampling across the entire site.

We collected over 290 soil samples. We analyzed for this list of compounds at the site. The ones that are shown in

yellow here are the same ones that Ted was showing before, are the compounds of concern.

Most of the other compounds that we were seeing here are either rarely found or in our Health Risk Assessment we've identified as having no significant risk.

For the compounds that I identified previously, the diesel, lead and PCBs, these are the cleanup levels that we have at the site.

The cleanup levels have been developed for a site where we intend to use it as either commercial or industrial use.

The areas that we have at the -- on the site where we are to do clean up are shown here. In red, we see the areas where lead is above our cleanup level. The areas here where PCBs are above the cleanup level and the areas in green where diesel is above cleanup level.

In addition to the soil sampling, we did extensive groundwater sampling of the site. Shallow groundwater occurs at the site between three and eight feet. We collected numerous samples across the site.

What we can see from our evaluations that the water is very salty, and according to State Water Resources Criteria, the water is not usable based on the salinity concentrations in that water.

We have limited chemical impact in the water at the

site, and in addition to that, we've evaluated the time that it would take for any of those compounds that we are seeing to potentially migrate to the bay.

We have an exceedingly long travel time in order to get to the bay. We're calculating somewhere between 4,000 and 10,000 years for those compounds to migrate to the bay.

As Steve had talked about earlier, we evaluated a number of alternatives, seven to be specific. These are the first two.

The first two are no action. We're required to do this as part of the CEQA process in order for a baseline comparison to the remaining alternatives.

The second alternative that we considered is capping the site, doing dust control, applying deed restrictions and decommissioning an on-site water supply well.

These aspects show up in all of the rest of the alternatives and all of the rest of the alternatives have subsequent additional remedial actions that we are taking.

These are the remaining five alternatives. Alternatives C through D1, D2 and D3 and Alternative E.

These alternatives include successive areas of excavation and remediation at the site. Alternative C is removing the Baghouse soils.

The Baghouse was an area at the site where any particulates from the steel manufacturing operations may have

been captured.

Think of it as a big vacuum cleaner and it's trapping any of the particles.

There are some areas of high lead concentrations just north of the Baghouse. We're remediating that area.

Alternative D1 includes removal of PCB soils at the site; d2, removing the remaining lead soils above our cleanup levels at the site; alternative D3, the petroleum hydrocarbons, the diesel that's shown on that map which is a petroleum hydrocarbon, and lastly, Alternative E.

Alternative E considers of -- instead of in alternative D3, removing that material off-site, Alternative E considered bioremediating those soils and replacing those treated soils back into the excavations at the site.

These are the alternatives that we considered.

Steve talked before about the various nine criterion that were used to evaluate the alternatives. These on the left side of the overhead show the nine criteria. The alternatives are across the top.

We've ranked these from low, medium high to very high as to their conformance or acceptability versus these various criteria.

As we can see, Alternative D3 has the highest level of assurance that we were meeting all of the criteria. They're either all blue or green, high or very high within that

category.

That is our selected alternative. That is what we are implementing.

Just to review, Alternative D3 includes removing PCB soils, lead soils, petroleum hydrocarbons, diesel shown on the map, and the soil north of the Baghouse.

It also includes capping the site and continued groundwater monitoring.

In addition to that, during the remediation action, we are going to be monitoring and controlling dust at the site. Deed restrictions will be eventually placed on the property restricting its use to commercial or industrial purposes only.

We plan to decommission an on-site water supply well at the site and some existing piles of slag material that are there are either going to be recycled or were removed from the site.

That's it for my presentation.

MS. NORTHRUP: Thanks, Mark.

One thing -- I might have missed it, but since you said the water on the site is not usable, but then talked about a water supply well.

The water supply well goes, what, about 400 feet down?

MR. SMOLLEY: The water supply well is more than 400 feet deep. The water supply well is about 480 some feet deep.

The water that we are sampled and characterized at the

site where we see any limited groundwater contamination is shallow, generally occurring in the -- first occurring three to eight feet below surface. That extends down to possibly fifteen feet.

MS. NORTHRUP: Okay. Thanks, Mark.

Well, that's it for the presentations.

Actually, you're okay with taking comments from the floor, aren't you?

THE REPORTER: Yes.

MS. NORTHRUP: Does anyone have any questions or comments? Yes. Please give us your name and spell it.

MR. GERBER: Yes. Ron Gerber with the City of Emeryville Redevelopment Agency, G-e-r-b-e-r.

The questions, how many monitoring wells do you have to leave on-site and do you have any idea what the horizon is for how long you have to keep them there and how often do you have to have reports?

MR. CIMPERMAN: Well, I guess right now, the actual design of the monitoring program would occur after the RAP is approved.

Generally, I mean, you're going to have three or four wells out there monitoring, and for what period of time, I think generally we would probably put in -- typically it's -- we'd start with thirty years, and somewhere during that period of time, if we decided that -- that there was nothing moving,

we, you know, would re-evaluate that.

MS. NORTHRUP: These plans go through a five-year review process?

MR. CIMPERMAN: Also, yes.

MS. NORTHRUP: So at that point, you would look again at what value you're getting from the monitoring, and the profile of the wells.

MR. GERBER: How often do the -- are these going to be yearly reports on the monitoring wells?

MR. CIMPERMAN: Generally we would start out with quarterly reports and -- and based on the materials that are there, we may, you know, change that pretty quickly to, you know, six months or a year.

MR. GERBER: Uh-huh.

MS. NORTHRUP: The profile of the wells, are they like things you can design streets over?

MR. CIMPERMAN: Oh, yes. Yes. I mean, you can put in wells and it's not much more than a utility box that you see in the middle of the street. Maybe a marker, survey marker. You put it in a Christie box. It doesn't get in the way of development at all, if that was the question.

MS. NORTHRUP: It's the question that I heard.

Did we capture your --

MR. GERBER: Yes.

MS. NORTHRUP: Yes, sir.

MR. CHEN: My name is Joe Chen. I'm with Orient and Western Holdings Corporation of San Francisco.

What type of -- can you be a little more specific on capping, what -- I -- I read in the materials that it could be asphalt and so forth.

Is there an actual capping material that you're going to be putting down first before the development goes on or is it just going to be the development since there's going to be presumably used soil or something?

MR. CIMPERMAN: At this point, I think seventy-seven percent of the site is already has asphalt and concrete --

MR. CHEN: Uh-huh.

MR. CIMPERMAN: -- over it, so we're talking about I guess the other twenty-three percent.

We were, I guess, initially looking at some asphalt. All we wanted to do is impede some -- you know, downward infiltration and I guess what we have in there -- there now is there could be -- could use soil.

I guess our understanding is that that whole area may have to be raised a couple feet, and soil may be brought in to raise that and engineered to, you know, raise the site and also to help cap it.

Ultimately, I guess, if there's a shopping center on-site, there would -- there should be either foundations or slabs of some sort that are -- that become part of the

building.

What's not part of the building would be asphalt parking lot, I would expect, and that would also further reduce any infiltration, but whatever we would do, I guess if it's not already mentioned in the RAP, it would be supportive of development.

MS. NORTHRUP: I should also tell you that there's a site over in San Francisco that was actually a public housing area and it was P&As, some -- some excavation, mostly capping on the site, and DTSC worked very closely with the Housing Authority and the residents and everybody else and wound up instead of having -- like most people got free patios and new sidewalks and planter boxes and all of that was basically cap.

MR. CHEN: That was capped?

MS. NORTHRUP: Right. So there's room in the remedial design for -- for working with whoever's going to develop the site.

Certainly in this part of the process, you know, if those are your concerns, I would make some comments about what kind of capping would -- you know, would be useful, not useful or -- or whatever else.

MR. CIMPERMAN: Let me also add to that that we're not talking about residential here on this site. We're talking about a commercial use of some sort, not a single family residence situation.

There may be high density housing that may be able to work into the plan, but I -- I guess I understand that the owners of the property are -- are planning on developing it and, you know, we should get some -- we're going to be working with them in designing the remediation into the plan and vice versa.

MR. CHEN: So high density would be -- high density residential would be considered commercial as opposed to single family residences?

MS. NORTHRUP: That's potentially a zoning question.

MR. CHEN: Right.

MS. NORTHRUP: That's something you have to work with Emeryville about, but certainly maybe some additional conversations with Steve and Ted and -- and being able to focus your comment to get the most out of our process.

MR. CHEN: Right.

MR. CIMPERMAN: Ron.

MR. GERBER: On --

MR. CIMPERMAN: Ron Gerber.

MR. GERBER: -- figuring out the travel time, the basic travel or 3 or 4,000 years.

Did you use a fate and transport model to figure that out?

MR. CIMPERMAN: The answer is yes.

MR. SMOLLEY: Yes, we did.

MR. CIMPERMAN: It should be -- where is it? It's in the Feasibility Study.

MR. SMOLLEY: It's in the Feasibility Study, we presented that information in there. We presented it also in the Public Health Environmental Evaluation, our Risk Assessment.

MR. GERBER: Okay.

MR. CHEN: Joe Chen once more.

The -- the decision to -- how far down is the excavation -- for the soil removal, how far -- how much soil is going to be taken?

MR. CIMPERMAN: It varies. There's several -- there's several spots over here. There are various gaps, and --

MR. SMOLLEY: There is anywhere between three and seven feet below ground surface, and the total volume of material -- I thought -- I think I heard that as part of your question, also -- is about 3,200 cubic yards.

MR. CHEN: Wow! So you're taking between three to seven feet off the entire surface or just the --

MR. CIMPERMAN: No. These spots.

MR. SMOLLEY: These spots.

MR. CHEN: Oh, I see.

MR. SMOLLEY: We're addressing excavations within the specific areas that we have shown in here.

MR. CHEN:

MR. SMOLLEY: Within this green area, within here and within here is the three primary ones.

MR. CHEN: I see.

MR. SMOLLEY: But then also all of these other areas --

MR. CHEN: Okay.

MR. SMOLLEY: -- to varying depths of what we have identified as soils above our cleanup levels --

MR. CHEN: Right.

MR. SMOLLEY: -- because we have taken samples of varying depths along the entire property.

MS. NORTHRUP: Would you mark for the record, kind of describe it more than this area, that other and the other area?

MR. SMOLLEY: Certainly. Diesel impact from the northern area of the property where we're excavating down to -- I think it's between five and seven feet.

Three areas in the northern portion of the property where we have PCB impacts. I think that those are all fairly shallow within the first two or three feet at the site.

One area north of the Baghouse where we have lead contamination in soils.

MR. CHEN: How deep was that?

MR. SMOLLEY: I'm sorry? How deep?

MR. CHEN: Yeah.

MR. SMOLLEY: I think that's limited to about two feet.

MR. CHEN: Also?

MR. SMOLLEY: Yes.

Three areas of lead impact at the site were above our lead cleanup levels. I think those were also three shallow areas that were at about two feet.

And then diesel contamination here and diesel contamination here, and I believe that this goes down to about seven feet.

MS. NORTHRUP: Those are both more in the center of the site?

MR. SMOLLEY: Yes. Those are both in the center of the site where we had some hits.

MR. CHEN: Thank you.

MS. NORTHRUP: Any other questions, comments?

Steve, do you have any closing comments you'd like to make?

MR. CIMPERMAN: No. Just thanks for showing up.

MS. NORTHRUP: Thanks for showing up. Get your comments to us by the 17th.

MR. CHEN: Thank you.

MR. CIMPERMAN: Thanks.

(Whereupon, the meeting concluded at 7:44 p.m.)

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STATE OF CALIFORNIA]
]
COUNTY OF SAN FRANCISCO]

I, the undersigned, hereby certify that the foregoing proceeding was by me stenographically reported and that I have accurately and truthfully subscribed to time and place; that the foregoing proceeding is a full, true and complete record of said testimony; and that the subject of this transcript was given an opportunity to read and correct said transcript and to subscribe the same.

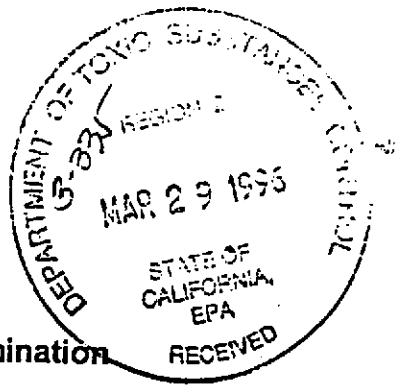
I further certify that I am not counsel or attorney for either or any of the parties in the foregoing caption named, or in any way interested in the outcome of the cause named in said action.

IN WITNESS WHEREOF, I have hereunto set my hand this 6th day of April, 1994.

MYERS CONTAINER CORPORATION
A DIVISION OF *IMACC* CORPORATION

900 Brookside Drive
San Pablo, CA 94801

March 28, 1996



Ms. Barbara Cook, Chief
Cleanup Operations, North Coast Branch
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710

RE: **Barbary Coast - Draft Remedial Action Plan**
Bunker C and Steelmaking Waste Tidelands Contamination

Myers Drum - Emeryville - Draft Remedial Action Plan
NBAR Allocation for Bunker C Contamination
Request to Name additional Responsible Parties

Dear Barbara,

The purpose of this letter is to comment, and provide clarification questions to DTSC as it relates to the Barbary Coast - Draft Remedial Action (DRAP), and the Myers Drum DRAP (which is now pending completion). IMACC requests DTSC to enter this letter, and the documents cited in this letter, into the final administrative record the Barbary Coast DRAP public comment period. Please note, at the appropriate time, we will be submitting this information into the Myers Drum - Emeryville DRAP public comment administrative record.

The topics of concern with the Barbary Coast DRAP relate to addressing off-site migration of Bunker C, diesel fuel, hydraulic and PCB oil from the present Barbary Coast Steel Site, and the off-site impact of historical tidelands filling using waste generated by Judson steelmaking operations. New and factual information has been provided to DTSC as it relates to sources of contamination found to be impacting the Myers Drum site. This information is contained in the following documents:

- A letter to DTSC from Myers Container Corporation Dated September 5, 1995, entitled "Myers Drum - Emeryville - Draft Remedial Action Plan - NBAR DTSC letter Dated July 14, 1995".

- A letter to DTSC from Myers Container Corporation Dated March 7, 1996, entitled "Myers Drum - Emeryville - Draft Remedial Action Plan NBAR Allocation for Bunker C Contamination", "New Findings of Bunker C Use by Judson Steel, Peterson's Cannery Operations and McGuire", "Judson Steel - Authority to Operate California Iron and Steel Situated on part of the Warburton Property - 1884", and "Judson Steel - Landfilling of Portions of Tidelands Lots 6 and 11 (between Bayshore Highway and Shellmound Street) and Ownership Title Date - November 1, 1937".

RE: Barbary Coast and Myers Drum - Emeryville
Draft Remedial Action Plans

- The TRC Environmental "Report of Findings - Focused Soil and Ground Water Investigation" on the Barbary Coast Site dated January 18, 1996.

- Declarations of Richard Scott, Ian Hutchinson and Mohammad Bazargani submitted to the Honorable Claudia Wilken on March 8, 1996 (attached to this letter).

- A Supplemental Declaration of Linda Walker Manning - a former Judson employee dated March 5, 1996 (hand delivered to DTSC by TRC Environmental).

- Deposition Testimony of Linda Walker Manning Dated March 22, 1996 (a transcript is being forwarded to Stephen A. Cimperman).

Questions of Clarification

Generally, how does DTSC intend to address the facts and findings relating to Judson / Barbary Coast off-site contamination addressed in each of the above documents?

(1) Is it appropriate to reveal the facts and findings discussed in the above documents at the Barbary Coast public meeting, and / or the Myers Drum public meeting?

Is DTSC agreeable to briefly introducing the issue of off-site migration and historical off-site placement of steelmaking wastes at the Barbary Coast public meeting on April 2, 1996? Should these documents be available for inspection at the public meeting and repositories?

Is it appropriate to directly address off-site contamination from Barbary Coast on to the Warburton property within the Barbary Coast DRAP? Please explain.

Is it appropriate to directly address off-site contamination from Barbary Coast on to Warburton property within the Myers Drum DRAP? How will DTSC determine (2) NBAR allocations relating the Bunker C plume and tidelands fill contamination (found on the Southwest corner of Warburtons property)? Please explain.

RE: Barbary Coast and Myers Drum - Emeryville
Draft Remedial Action Plans

IMACC's position on the project implementation schedule will be determined and limited by the availability of funds and amounts contributed by other RP's. Additionally, as long as IMACC is the only active responding party, IMACC has stated that annual spending will not exceed $1,000,000 per year at both the Oakland and Emeryville sites. With this real limitation clearly in mind, and with the off-site contamination evidence provided in the above cited documents, does DTSC intend to consider naming additional RP's on the Warburton parcel to address the Bunker C and tidelands filling issue? Will these same facts and findings be used as part of determining the Myers Drum Final DRAP NBAR allocation? Will DTSC consider amend the Barbary Coast DRAP to include remediation of off-site Bunker C and tidelands filling which impact soil and ground water operating units within the Warburton site? Will DTSC ultimately coordinate the property boundry remediation such that it becomes one project with an approprate responding party or group? Please explain.

In the March 7, 1996, letter cited above, starting at the bottom of page 4 and continuing on page 5, IMACC requested and recommended that DTSC name Judson Steel, Barbary Coast, and certain other parties as RP's and named NBAR parties at the Myers Drum Emeryville site. IMACC requests that DTSC review the recommendations, and determine if the facts and findings warrant amending the Barbary Coast DRAP, and / or the Myers Drum DRAP, and provide an appropriate guidance, oversite and written response.

IMACC does not desire to delay or create an unmanageable burden at the April 2, 1996, Barbary Coast DRAP public meeting. However, the Barbary Coast Steel Site Fact Sheet #1 does not provide the public with information on these issues. IMACC recommends and requests that the topics and issues discussed in this letter be briefly discussed at both public meetings for purposes of disclosure and public comment. Additionally, IMACC respectfully requests that DTSC consider the questions and comments summarized in this letter before the Myers Drum - Emeryville DRAP becomes final.

If you have any questions or wish to discuss the above, I may be reached at (510) 231-5304.

Sincerely,
MYERS CONTAINER CORPORATION

Dana Zanone
Manager Environmental Systems

Distribution

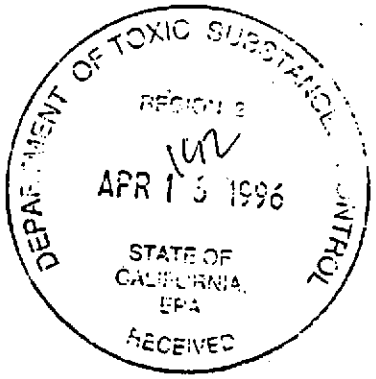
cc: Mr. Stephen A. Cimperman, P.E.
Mr. Ted Park
Site Mitigation Branch
Department of Toxic Substance Control
Region 2
700 Heinz Avenue, Building F
Berkeley, CA 94704

Ms. Michelle M. Lambre
Jaffe, Trutanich, Scatena & Blum
155 Sansome Street, Suite 700
San Francisco, CA 94104

Mr. Mohammad Bazargani
Environmental Solutions
2815 Mitchell Drive, Suite 103
Walnut Creek, CA 94598

BIRMINGHAM STEEL CORPORATION
Seattle, Washington Steel Division

2424 S.W. Andover
Seattle, WA 98106-1100
Phone (206) 933-2222
Fax (206) 933-2207



April 15, 1996

Mr. Steve Cimperman
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

RE: **Barbary Coast Steel - Comments on Draft Remedial Action Plan**

Dear Mr. Cimperman:

Barbary Coast Steel has the following comments on the Draft Remedial Action Plan proposed for its Emeryville Site.

1. Nature of the Cap

The Draft RAP for the Site states that "if redevelopment of the site does not occur by March, 1998, all currently unpaved areas will be covered with a cop comprised of 1-1/2 to 2 inches of asphalt. The purpose of the cap is to preclude human contact with contaminated soil, limit infiltration of precipitation through contaminated soil and prevent migration of dust from the site." See Page 6-6.

Based on discussions with the prospective developer of the property, Barbary Coast believes that the RAP should be revised to provide flexibility in the type of material that is used for construction of the cap. It is our understanding that the developer intends to raise the grade across the entire site by several feet, and that fill material (clay or soil) will be imported to accomplish this task. The fill will be graded and compacted as necessary for site preparation. This compacted clay-soil layer will be approximately two feet thick, and will function as an effective cap on the Site. It is also our understanding that any buildings and paved parking areas which are eventually constructed on the property would also function as a cap, irrespective of any underlying fill material.

To address these issues, Barbary Coast is requesting that the RAP be revised as follows:

"If redevelopment of the site does not occur by March, 1998, all currently unpaved areas will be covered with a cap comprised of 1-1/2 to 2 inches of asphalt, or other suitable material, including but not limited to soil or clay. The purpose of the cap is to preclude human contact with contaminated soil, limit infiltration of precipitation through contaminated soil and prevent

migration of dust from the site. These goals will also be accomplished by the construction of buildings and paved parking areas as part of a development project."

2. Nonbinding Allocation of Responsibility

We believe that 14% of the responsibility for site cleanup should be allocated collectively to IMACC Corporation and the other entities or individuals that owned or operated the Myers Drum Reconditioning Facility that is adjacent to the Barbary Coast Site. This percentage represents the estimated cost of remediating an area along the northern boundary of the Barbary Coast site that has been impacted by migration of wastes from the IMACC Site. Hydrologic and groundwater flow is from the IMACC Site towards the Barbary Coast Site. Further, the nature of the contaminants detected in the Barbary Coast wills that are immediately downgradient of the IMACC Site are consistent with the drum reconditioning operations, and inconsistent with steel making operations. The estimated cost of remediating this portion of the Site is $430,000, or 14% of the total remediation cost for the Site.

Section 25356.1 of the Health and Safety Code clearing states that the NBAR shall include all identifiable potentially responsible parties at a site, including those that may have been released, or may otherwise be immune from, liability. Given the compelling nature of the evidence, Birmingham believes the Department is obligated by law to include the IMACC parties in the NBAR for the Barbary Coast Site.

We appreciate the opportunity to submit these comments.

Very truly yours,

Barton D. Kale

Barbary Coast Steel

Barton D. Kale
Environmental Systems Manager

cc: John Greer, Opus

LAW OFFICES

ROBERT ROSENBERG*
ROGER M. HUGHES
JAMES C. NELSON
CATHERINE M. FISHER
JOHN H. BANISTER
ROLAND NIKLES
TERESA JENKINS MAIN
HOWARD G. CURTIS
JENNIFER M. FERGUSSON

*CERTIFIED SPECIALIST-PROBATE, ESTATE PLANNING & TRUST LAW THE STATE BAR OF CALIFORNIA BOARD OF LEGAL SPECIALIZATION

BELL, ROSENBERG & HUGHES
1300 CLAY STREET, SUITE 1000
P.O. BOX 70220 STATION "D"
OAKLAND, CALIFORNIA 94612-0220

HOWARD H. BELL
OF COUNSEL

TELEPHONE
(510) 832-8585

TELECOPIER
(510) 839-6925

April 17, 1996

VIA FACSIMILE and
FIRST CLASS MAIL

Mr. Ted Park
DEPARTMENT OF TOXIC SUBSTANCES
CONTROL, Region 2
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

RE: Barbary Coast Site, Emeryville, California

Dear Mr. Park:

As you know, my firm is counsel for Judson Steel Corporation. The purpose of this letter is to provide comments/objections to the EMCON Draft Remedial Action Plan dated March 15, 1996 ("Plan"). I am informed the draft Plan has been approved by DTSC and Regional Water Quality is not requiring groundwater remediation. The Plan also includes your Department's non-binding allocation of responsibility, which allocates 85% to Judson Steel and 15% to Barbary Coast Steel. Judson Steel objects to the non-binding allocation and requests DTSC delete Judson Steel from this listing. Please refer to my March 26, 1996 letter for the basis of Judson Steel's objections for listing in the NBAR and the reasons IMACC should be included. Contrary to what IMACC/Myer Container representatives are saying, IMACC is responsible for the contamination on the northern portion of the Barbary Coast property and should be included in any allocation of responsibility by DTSC. Judson Steel also objects to the letter from Regional Water Quality which identifies Bunker C fuel oil as one of the contaminants in the property. To date, there is no evidence of Bunker C contamination on either the Judson Steel or IMACC property.

Judson Steel has the following objections/comments on the Plan:

1. Excavation near IMACC Property Line - There are several reasons why the proposed depth excavation near the IMACC property line is undesirable, including: (1) inducing additional IMACC contaminants to flow onto the Barbary Coast property, (2) difficulty in excavating below the

water table which is only about 2 to 3 feet below grade in this area, (3) added expense (about $500,000) for no perceptible environmental benefit, (4) potential destruction of physical evidence that points to IMACC as the polluter in this area of the site, (5) potential damage to the IMACC process building, and (6) immediate recontamination of clean fill placed below the water table. Under the circumstances, it appears this proposed work has no technical justification.

2. Hot Spot Removal - We see the removal of some of the "hot spot" soil at other locations on the Barbary Coast property as appropriate. It should be noted that the soil above the water table is generally not significantly contaminated. We are concerned that the amount (volume) of soil removal and disposal may increase as these areas are excavated. Also, some of these "hot spots" seem to have been selected and sized based on only one data point. Also, the Plan does not deal with the disposition of the many concrete slabs and foundations on the Barbary Coast property. We suggest that the concrete be crushed and used as aggregate fill on the site, unless the site filling option discussed below is adopted.

3. Asphalt Pavement Cap - We do not agree with the selection of 1.5 to 2 inches of asphaltic concrete as a "cap" for the Barbary Coast site. This thin "cap" does not provide protection for workers (current or future) encountering the soil, as they would in excavating for grade beams and utility trenches. And, utility trenches at typical depths could alter the patterns of shallow groundwater flow, taking contaminants to new places.

4. Remedial Option - In our opinion, a much better way to "cap" the Barbary Coast site would be to add about three to five feet of clean fill to the site and place utility corridors within the fill. This approach would effectively remove the potential exposure of workers and might also have some commercial benefits such as better visibility to passing traffic. Also, it might then be feasible to leave some of the existing concrete slabs and foundations in place.

   We estimate that about 45,000 to 70,000 cubic yards of fill placed on the 14.4 acre site would raise the grade by 3 to 5 feet. With appropriate management and a sufficiently large window of time for acquisition and placement, we have found that clean fill is relatively inexpensive in the Bay Area at the present time.

In summary, the plan for the Barbary Coast property could be the following:

1. Limit all soil removal actions to the soil zone above the water table (about 2 feet below grade); and

2. Place and compact 3 to 5 feet of clean imported fill over the entire site, leaving most of the existing concrete slabs and foundations in place.

This plan would cost between $500,000.00 to $800,000.00 as opposed to the approximate $3 million under the Plan. Despite this cost difference, the end result would be almost identical.

Please review this letter and contact me with your questions or comments.

Very truly yours,

BELL, ROSENBERG & HUGHES LLP

John H. Banister

JHB:sdr

[2859.131/120\park0410]

APPENDIX C

ADMINISTRATIVE RECORD LIST

TABLE 1

ADMINISTRATIVE RECORD LIST - REPORTS

Barbary Coast Steel

TITLE OR DESCRIPTION	FROM/TO	DATE
Foundation Investigation, Proposed New Facilities, Judson Steel Corporation Plant, Emeryville, California	Dames and Moore/Jacob Engineering	July 14, 1971
Addendum Soil Test Results for the Transformer Platform and Baghouse Area of Judson Steel in Emeryville, California	Earth Metrics, Inc./DTSC	February 1987
Final Environmental Risk Assessment for the Judson Steel Site in Emeryville, California	Earth Metrics, Inc./DTSC	March 1987
Environmental Risk Assessment for the Judson Steel Site, Parcel A, in Emeryville, CA	Earth Metrics, Inc./DTSC	August 1987
Additional Metals Testing at the Judson Steel Site in Emeryville, California	Earth Metrics, Inc./DTSC	October 1987
Trench Sampling of Soil at Judson Steel, Emeryville, California	Earth Metrics, Inc./BCSC	October 20, 1987
Environmental Investigation Related to Underground Tank Removal	Applied Geosystems/BCSC	March 15, 1988
Hazardous Materials Business Plan	BCSC/ACHCSA	April 11, 1988
Site Characterization and Remediation, Barbary Coast Steel Corporation, Emeryville, California	EMCON/DTSC	January 1991
Groundwater Characterization Report	EMCON/BCSC	August 6, 1991
Workplan for underground tank closure, Emeryville	EMCON/DTSC	April 29, 1992
Hazardous Waste Investigations and Remedial Alternative - Caltrans Property	Wahler Associates/Caltrans	June 1992
Workplan for the Remedial Investigation and Feasibility Study, Emeryville Facility	EMCON/DTSC	May 1993
Soil and Groundwater Characterization	EMCON/DTSC	June 1993
Public Participation Plan, Barbary Coast Steel Corporation, Emeryville, California	EMCON/DTSC	July 1993
Remedial Investigation Report	EMCON/DTSC	October 1993
Public Health and Environmental Evaluation	EMCON/DTSC	January 1994
Technical Memorandum on Initial Screening Results for the Feasibility Study	EMCON/DTSC	January 1994
Addendum to the Remedial Investigation Report	EMCON/DTSC	April 1994
Technical Memorandum, Remedial Technologies Screening, Barbary Coast Steel Corporation, Emeryville, California	EMCON/DTSC	September 1994

TABLE 1

ADMINISTRATIVE RECORD LIST - REPORTS

Barbary Coast Steel

TITLE OR DESCRIPTION	FROM/TO	DATE
Quarterly Monitoring Report, First Quarter 1995, Barbary Coast Steel Corporation, Emeryville, California	EMCON/DTSC	April 1995
Soil Cleanup Levels for High-Boiling-Point Petroleum Hydrocarbons, Emeryville, California	EMCON/DTSC	August 1995
Additional Monitoring Well Installations	EMCON/DTSC	August 31, 1995
Second quarter 1995 groundwater monitoring report, Barbary Coast Steel Corporation, Emeryville, California	EMCON/DTSC	September 8, 1995
Addendum to remedial investigation, IMACC sampling	EMCON/DTSC	September 27, 1995
Feasibility Study for Remedial Action	EMCON/DTSC	January 1996
Third quarter 1995 groundwater monitoring report, Barbary Coast Steel Corporation, Emeryville, California	EMCON/DTSC	December 1, 1995
Draft Remedial Action Plan	EMCON/DTSC	March 15, 1996
First Quarter 1996 Groundwater Monitoring Report	EMCON/DTSC	March 8, 1996

Notes:
ACHCSA=Alameda County Health Care Sevices Agency
BCSC = Barbary Coast Steel Corporation
DTSC = Department of Toxic Substances Control

TABLE 2

ADMINISTRATIVE RECORD LIST - LETTERS

Barbary Coast Steel

TITLE OR DESCRIPTION	FROM/TO	DATE
Documents Violation Notice No. 12660 for failure to have submerged fill tubes on USTs	BAAQMD/Judson Steel	December 11, 1986
Unused Underground Storage Tanks (documents request for information regarding unused tanks onsite)	SWRCB/Sims Consolidated, Ltd.	July 8, 1986
Addendum Soil Test Results for the Transformer Platform and Baghouse Area of Judson Steel in Emeryville, California	Earth Metrics, Inc./DTSC	February 1987
Data Transmittal	Earth Metrics, Inc./BCSC	September 1987
Corrected Hydrocarbon Results for Parcel A Judson Steel Property	Earth Metrics, Inc./BCSC	September 4, 1987
Documents transfer of property from Judson Steel Corp. to BCSC	Judson Steel/ACHCSA	November 11, 1987
Transmittal of Results for Two Water Samples and One Solid Sample Identified as "Site ID 018022-1" Received February 29, 1988	Anatec Laboratories, Inc./Applied Geosystems	March 16, 1988
Letter Report on Chemical Analyses of Soil and Water Samples Obtained from an Excavated Trench	Applied Geosystems/BCSC	April 19, 1988
Documents submittal of tank closure plan to ACHCSA	W.A. Craig, Inc./BCSC	April 21, 1988
Documents notes pertaining to tank closure plan	BCSC/W.A.Craig, Inc.	April 25, 1988
Documents slag disposal practices at the site	BCSC/DTSC	August 18, 1988
Documents installation and sampling of a monitoring well	Crosby & Overton, Inc./Bill	March 27, 1989
Documents request for tank closure plan from BCSC	ACHCSA/BCSC	November 13, 1989
Documents removal of underground storage tanks at the site	BCSC/ACHCSA	November 20, 1989
Monitoring Well Abandonment	W.A. Craig, Inc./SWRCB	January 11, 1990
File Review, Environmental Site Assessment (documents request for a file review)	EMCON/DTSC	March 12, 1990
File Review, Environmental Site Assessment (documents request for a file review)	EMCON/DTSC	April 26, 1991
Hazardous Substances Information Request	DTSC/BCSC	September 24, 1991
Transmittal of Laboratory Results (documents dust sampling and analysis)	ENSR/BCSC	March 18, 1992
Documents that hazardous wastes are no longer stored on site and that an updated HMMP is no longer required	BCSC/DTSC	May 21, 1992
Laboratory Results from Duplicate Samples from Caltrans (Draft)	ENSR/Caltrans	June 1992
Consent Order (Docket No. I & SE 92/93-013)	DTSC/BCSC	June 10, 1993
Documents review of Workplan for Remedial Investigation and Feasibility Study	DTSC/BCSC	July 14, 1993

TABLE 2

ADMINISTRATIVE RECORD LIST - LETTERS

Barbary Coast Steel

TITLE OR DESCRIPTION	FROM/TO	DATE
Memorandum - Barbary Coast Site Safety Plan Protection Factors	BCSC/EMCON	July 14, 1993
Metals analyses	EMCON/DTSC	July 28, 1993
Documents review of Public Participation Plan	DTSC/BCSC	September 10, 1993
Revised page 2-2 to Public Participation Plan (documents transmittal of page 2-2)	EMCON/DTSC	September 15, 1993
Quarterly summary report	EMCON/DTSC	November 9, 1993
Documents comments from DTSC on Remedial Investigation Report	DTSC/BCSC	January 12, 1994
Additional site characterization	EMCON/DTSC	February 11, 1994
Fourth Quarter 1993 - Summary Report	EMCON/DTSC	February 14, 1994
Current Site Activities	BCSC/DTSC	February 22, 1994
Memorandum (documents review of Public Health and Environmental Evaluation)	DTSC/DTSC	February 23, 1994
Meeting with DTSC (documents meeting to discuss Public Health and Environmental Evaluation Report)	EMCON/BCSC	March 17, 1994
Response to DTSC comments on the public health and environmental evaluation report	EMCON/DTSC	April 1, 1994
Estimated travel time of petroleum hydrocarbons to San Francisco Bay	EMCON/DTSC	April 18, 1994
First quarter 1994 summary report	EMCON/DTSC	April 22, 1994
Transformer oil spill	EMCON/DTSC	June 27, 1994
Summary of May 25, 1994 meeting	EMCON/DTSC	July 5, 1994
Second quarter 1994 summary report	EMCON/DTSC	August 2, 1994
Groundwater Elevations at Myers Drum and Barbary Coast facilities in Emeryville	DTSC/BCSC	August 3, 1994
Transformer Oil Spill (documents transmittal of EMCON's report)	DTSC/Alameda County Hazardous Materials Unit	August 15, 1994
First Amendment to Consent Order	DTSC/BCSC	August 25, 1994
Memorandum - Shellmound/Bayfront Sites Meeting Minutes	EMCON/BCSC	September 6, 1994
Documents a groundwater mound on the Myers Drum site, a site utility map, and Bunker C Oil use	EMCON/DTSC	September 6, 1994
Technical Memorandum, Barbary Coast Steel Site, Emeryville, California (review of EMCON's remedial technologies screening)	DTSC/BCSC	November 8, 1994
Documents current site status	BCSC/DTSC	November 28, 1994
Documents groundwater monitoring and site demolition	EMCON/DTSC	December 15, 1994

TABLE 2

ADMINISTRATIVE RECORD LIST - LETTERS

Barbary Coast Steel

TITLE OR DESCRIPTION	FROM/TO	DATE
Documents current groundwater monitoring and site demolition	EMCON/DTSC	January 10, 1995
Documents telephone conversation discussing hole dug on BCS site by Road Contractors	EMCON/DTSC	January 23, 1995
Draft Feasibility Study	DTSC/BCS	February 24, 1995
Memorandum (documents DTSC's response to EMCON's request for review of lead and hydrocarbon cleanup levels)	DTSC Sacramento/DTSC Oakland	February 28, 1995
Documents request for extension of submittal of the feasibility study	BCSC/DTSC	March 9, 1995
Response to DTSC comments on feasibility study report	EMCON/DTSC	March 17, 1995
Workplan to determine a cleanup level for high-boiling-point petroleum hydrocarbons	EMCON/DTSC	April 12, 1995
Documents approval of Workplan to Determine Cleanup Levels for TPH with conditions	DTSC/EMCON	April 27, 1995
Documents transmittal of several reports for RWQCB review	EMCON/RWQCB	May 1, 1995
Cleanup level for high-boiling-point hydrocarbons	EMCON/DTSC	May 9, 1995
Variance (documents approval for Caltrans to excavate and move lead impacted soils)	DTSC/Caltrans	June 7, 1995
Documents request for field data to support the Risk Assessment for Total Petroleum Hydrocarbons	DTSC/EMCON	June 12, 1995
Schedule for additional evaluation	EMCON/DTSC	June 21, 1995
Documents review of report on Soil Cleanup Levels for High-Boiling-Point Petroleum Hydrocarbons	RWQCB/DTSC	September 15, 1995
Documents comments on Revised Feasibility Study	DTSC/BCSC	October 13, 1995
Approval of the final Feasibility Study	DTSC/BCSC	January 29, 1996
Approval of the Draft Remedial Action Plan	DTSC/BCSC	March 18, 1996
Comments from Judson Steel Corporation on the Draft Remedial Action Plan	Banister/DTSC	April 17, 1996
Comments from Birmingham Steel Corporation on the Draft Remedial Action Plan	Kale/DTSC	April 15, 1996
Comments from IMACC on the Draft Remedial Action Plan	Zanone/DTSC	March 28, 1996
Myers Drum - Emeryville - Draft Remedial Action Plan - NBAR DTSC letter dated July 14, 1995	Myers Container Corp./DTSC	September 5, 1995
Myers Drum - Emeryville - Draft Remedial Action Plan NBAR Allocation for Bunker C Contamination	Myers Container Corp./DTSC	March 7, 1996
Report of Findings - Focused Soil and Groundwater Investigation	TRC Environmental/DTSC	January 18, 1996
Declarations of Richard Scott, Ian Hutchinson and Mohammad Bazargani submitted to the Honorable Claudia Wilken		March 8, 1996

TABLE 2

ADMINISTRATIVE RECORD LIST - LETTERS

Barbary Coast Steel

TITLE OR DESCRIPTION	FROM/TO	DATE
A Supplemental Declaration of Linda Walker Manning		March 5, 1996
Deposition Testimony of Linda Walker Manning		March 22, 1996

Notes:
ACHCSA=Alameda County Health Care Sevices Agency
BAAQMD = Bay Area Air Quality Management District
BCSC = Barbary Coast Steel Corporation
DTSC = Department of Toxic Substances Control
RWQCB = Regional Water Quality Control Board
SWRCB = State Water Resources Control Board

TABLE 3

ADMINISTRATIVE RECORD LIST - REGULATIONS

Barbary Coast Steel

TITLE-FEDERAL REGULATIONS	CITATION	DATE
National Contingency Plan	40 CFR Part 300	
RCRA Land Disposal Restrictions	40 CFR Parts 260-270	
Safe Drinking Water Act	40 CFR Part 141	
Occupational Safety and Health Administration	29 CFR Part 1910.120	
Clean Water Act	40 CFR Part 100-149	
National Ambient Air Quality Standards	40 CFR Part 50	
National Pretreatment Standards	40 CFR Part 403	
Toxic Substances Control Act	15 U.S.C. Secs 2601 et seq.	
National Primary Drinking Water Standards	40 CFR Part 141	
Water Quality Criteria	40 CFR Part 131. Quality Criteria for Water	1976, 1980, 1986, and updates
Comprehensive Environmental Response Compensation and Liability Act (CERCLA)/Superfund Amendments and Reauthorization Act (SARA)	42 U.S.C Section 9601 et seq.	
Clean Air Act	42 U.S.C. Sections 7401 et. seq.	
Standards Applicable to Generators of Hazardous Waste	40 CFR Part 262	
Standards Applicable to Transporters of Hazardous Waste	40 CFR Part 263	
Manifest System, Recordkeeping, and Reporting	40 CFR Part 264.70 et seq. Subpart E	
Hazardous Materials Transportation Regulations	49 CFR Parts 107. 171-177	
Federal Endangered Species Act of 1973	50 CFR, Subchapter B	
TITLE - CALIFORNIA REGULATIONS		
California Safe Drinking Water Act - Maximum Contaminant Levels (MCLs)	5, Part 1, Chapter 7. Section 4010 et. seq., HSC. DIV20, Chapter 66	
California Hazardous Waste Control Act, California	22CCR 66261.24, 66262.1	
Hazardous Waste Control Law	Health and Safety Code, Division 20, Chapters 6.5,6.7, and 6.8	
Porter Cologne Water Quality Control Act	Water Code, Division 7, Section 13000 et. seq.	
Regulations for establishing a Waste Management Unit	23 CCR Division 3, Chapter 9, Section 2200 et. seq.	
Region 2 Water Quality Control Plan	San Francisco Bay Basin Plan CWC Section 13140, 13240	

TABLE 3

ADMINISTRATIVE RECORD LIST - REGULATIONS

Barbary Coast Steel

Title - CALIFORNIA REGULATIONS (Continued)		
California Occupational Health & Safety Act	Labor Code, Division 5, Section 6300, et. seq.	
Criteria for Identification of Hazardous and Extremely Hazardous Wastes - Threshold Limit Concentrations	22 CCR, Division 4, Chapter 30, Article 11, Section 66693-66747	
California Environmental Quality Act (CEQA)	Public Resources Code, Division 13, Section 21000 et. seq.	
BAAQMD Hazardous Pollutants-Lead	Regulation 11, Rule 1, Section 11 1-100, Regulation 8, Rule 40, Regulation 6	
Sources of Drinking Water and Non-Degradation Policy, State Water Resources Control Board	Resolution 88-63, Resolution 68-16	
State of California Department of Water Resources Water Well Standards	Bulletin 79-81	
California Underground Storage Tank Regulations	Subchapter 16, Title 23 CCR)	
California Endangered Species Act of 1984	Fish & Game Code Div. 3, Chapter 1.5	
TITLE- LOCAL REGULATIONS		
District		
- Emeryville publicly owned treatment works (POTW)		
- Alameda County Flood Control and Water Conservation District (Zone 7)		
City of Emeryville		
- Grading Permit		
- Uniform Building Code	UBC Appendix, Chapter 70	

Notes:
CFR = Code of Federal Regulations
CCR = California Code of Regulations
USC = United States Code

TABLE 4

ADMINISTRATIVE RECORD LIST - TECHNICAL REFERENCE MATERIAL

Barbary Coast Steel

TITLE-TECHNICAL REFERENCE MATERIAL	FROM/TO	DATE
Public Participation Policy and Guidance Manual	DTSC	Undated
Advisory (notice that additional permits for equipment may be necessary)	BAAQMD/Judson Steel Corp.	July 7, 1986
The Operators and Owners of Underground Storage Facilities of Hazardous Substances (document explaining statute to register underground storage tanks)	ACHCSA	April 30, 1987
Toxic Substances Control Division Remedial Action Plan Development and Approval Process	DTSC	September 1987
Gasoline Dispensing Facility (Permit to Operate)	BAAQMD/Judson Steel Corp.	December 10, 1987
Owners and Operators of Businesses Which Handle Hazardous Materials (request for submittal of a business plan)	ACHCSA	March 10, 1988
Guidance to Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final	USEPA	October 1988
The Installation Restoration Program Toxicology Guide	Oakridge National Laboratory	July 1989
Leaking Underground Fuel Tank Field Manual	SWRCB	October 1989
Guidance on Remedial Actions for Superfund Sites with PCB Contamination	USEPA	August 1990
Risk Assessment Guidance for Superfund, Volume I & II, 1989, 1991	USEPA	1989, 1991
Relative Bioavailability of Lead from Mining Waste Soil in Rats	Fundamentals of Applied Toxicology	1992
Bioavailability of Arsenic and Lead in Soils From Butte Montana Mining Wastes	Environmental Science and Technology Research	1992
Absolute Bioavailability of Lead Acetate and Mining Waste Lead in Rats	Toxicology	1993
Cleanup of Petroleum Contaminated Soils	Calif. Environmental Insider	February 15, 1993
Southern Pacific Transportation Company Roseville Railyard (DTSC informational document)	DTSC	November 1993
Decision Support System for Exposure and Risk Assessment, Version 1.0	American Petroleum Institute	November 1993
Alternatives for Remediating Lead/Hydrocarbon Contaminated Soils - Asphalt Incorporation Shows Promise	The Hazardous Waste Consultant	July/August 1994
Implementation of Non-Attainment Areas	RWQCB	October 21, 1994
Management Memo #EO-94-015-MM, Interpretation of the Petroleum Exclusion (Health and Safety Code Section 25317)	DTSC	November 28, 1994
Responses to Management of Petroleum Hydrocarbons	RWQCB	May 1995
New Remedial Action Plan Policy, #ED-95-007-PP	DTSC	December 1995

Notes:
ACHCSA=Alameda County Health Care Services Agency
BAAQMD = Bay Area Air Quality Management District
DTSC = Department of Toxic Substances Control
RWQCB = Regional Water Quality Control Board
SWRCB = State Water Resources Control Board
USEPA = U.S. Environmental Protection Agency

APPENDIX D

STATEMENT OF REASONS

STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

REGION 2
700 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737

STATEMENT OF REASONS FOR BARBARY COAST STEEL SITE REMEDIAL ACTION PLAN

Pursuant to California Health and Safety Code (HSC), section 25356.1(d), the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) has prepared this Statement of Reasons as part of the attached Remedial Action Plan (RAP) for the Barbary Coast Steel site at 4300 East Shore Highway, Emeryville, Alameda County, California.

The RAP presents a summary of the Remedial Investigation (RI) to address petroleum hydrocarbons, metals, and polychlorinated biphenyls that have been detected in soil and groundwater at and near the Barbary Coast Steel site. The RAP summarizes the results of a Risk Assessment performed to determine the potential risks to public health and the environment associated with the petroleum hydrocarbons, metals, and polychlorinated biphenyls. The RAP also provides a discussion of the feasible remedial alternatives that were evaluated in the Feasibility Study (FS). The RAP recommends a remedial alternative that will meet the objectives of protecting public health and the environment. The RAP proposes remediation of soil by excavation and capping.

DTSC believes that the attached RAP complies with the law as specified in California Health and Safety Code, section 25356.1. Section 25356.1(e) requires that RAPs "shall include a statement of reasons setting forth the basis for the removal and remedial actions selected." The statement of reasons "shall also include an evaluation of the consistency of the removal and remedial actions proposed by the plan with the federal regulations and factors specified in subdivision (d) ..." Subdivision (d) specifies six factors against which the remedial alternatives in the RAP must be evaluated. The proposed remedial action is consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (the National Contingency Plan, "NCP"), the federal Superfund regulations. The attached RAP has addressed all these factors in detail; a brief summary of each factor follows. The statement of reasons also includes the preliminary Nonbinding Allocation of Responsibility (NBAR) as required by HSC section 25356.1(e).

1. Health and Safety Risks - Section 25356.1(d) (1)

   The chemicals of concern identified for this site are petroleum hydrocarbons, lead, and polychlorinated biphenyls.

Residential land use was not considered as a baseline because current and future planned uses of the site are commercial/industrial.

The risk assessment evaluated potential exposures for on-site construction workers who have the potential for direct exposure to airborne dust or site soils. The results of the risk assessment indicated that the direct exposure was the only potential pathway to the substances detected at the site. However, this potential exposure can be controlled using routine dust control measures (by watering the site).

2. Beneficial Uses of the Site Resources - Section 25356.1(d) (2)

The groundwater at the site is not currently used for drinking or other purposes, and the future use of the groundwater at the site is unlikely. The existing deep well used on site will be decommissioned. There are no areas of surface water on site. The RAP proposes remediation that allows the site to be developed for commercial use.

3. Effect of the Remedial Actions on Groundwater Resources - 25356.1(d)(3)

Available technologies were evaluated to meet remedial action objectives for soil. A variety of scientific engineering approaches and technologies were considered. Shallow groundwater is not used for beneficial purposes according to California State Water Resources Control Board Resolution 88-63. The excavation of comtaminated soils and the capping of the site will limit the infiltration of rainfall and minimize releases to groundwater.

4. Site-Specific Characteristics - Section 25356.1(d) (4)

Soil and groundwater beneath the site have been characterized. Limited areas of site soils are contaminated with lead, polychlorinated biphenyls, and petroleum hydrocarbons. Groundwater is also slightly impacted with the low concentrations of the chemicals. The site will be capped, reducing the potential for airborne dust and minimizing the potential for infiltration of rainfall.

5. Cost-Effectiveness of Alternative Remedial Action Measures - Section 25356.1(d) (5)

The proposed remedial action alternative, excavation and capping, was the most cost-effective alternative to meet the cleanup objectives.

6. Potential Environmental Impacts of Remedial Actions - Section 25356.1(d) (6)

The proposed remedial alternative will not create any significant adverse environmental impacts. Because of this, a Negative Declaration was proposed pursuant to the California Environmental Quality Act (CEQA) for the recommended remedial alternative. An Environmental Study Checklist was completed for the

Barbary Coast Steel Site which discussed potential environmental impacts of the recommended remedial alternative, as well as actions that will be taken to reduce or eliminate these potential environmental impacts during implementation. The CEQA Environmental Study Checklist and proposed Negative Declaration are being distributed (under separate cover) for a 30-day public comment period.

7. Preliminary Nonbinding Allocation of Financial Responsibility - Section 25356.1(e)

The RAP must include a "preliminary nonbinding allocation of responsibility (NBAR) among all identifiable potentially responsible parties at a particular site, including those parties which may have been released, or may otherwise be immune, from liability..." (HSC section 25356.1(e)). The current NBAR for the Barbary Coast Steel Site, as issued by the DTSC, is presented on the next page.

APPENDIX E

NON-BINDING ALLOCATION OF RESPONSIBILITY

STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

REGION 2
700 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737

PRELIMIARY NONBINDING ALLOCATION OF RESPONSIBILITY

Health and Safety Code (HCS) Section 25356.1(e) requires the Department of Toxic Substances Control (DTSC) to prepare a preliminary nonbinding allocation of responsibility (the "NBAR") among all identifiable potentially responsible parties (PRPs). HSC section 25356.3(a) allows PRPs with an aggregate allocation in excess of 50 percent to convene an arbitration proceeding by submitting to binding arbitration before an arbitration panel. If PRPs with over 50 percent of the allocation convene arbitration, then any other PRP wishing to do so may also submit to binding arbitration.

The sole purpose of the NBAR is to establish which PRPs will have an aggregate allocation in excess of 50 percent and can therefore convene arbitration if they so choose. The NBAR, which is based on the evidence available to the DTSC, is not binding on anyone, including PRPs, DTSC, or the arbitration panel. If a panel is convened, its proceedings are de novo and do not constitute a review of the provisional allocation. The arbitration panel's allocation will be based on the panel's application of the criteria spelled out in HSC Section 25356.3(c) to the evidence produced at the arbitration hearing. Once arbitration is convened, or waived, the NBAR has no further effect, in arbitration, litigation or any other proceeding, except that both the NBAR and the arbitration panel's allocation are admissible in a court of law, pursuant to HSC Section 25356.7 for the sole purpose of showing the good faith of the parties who have discharged the arbitration panel's decision.

DTSC sets forth the following preliminary nonbinding percentage allocations of responsibility for the Barbary Coast Steel site:

- 85 % Judson Steel Corporation
- 15% Barbary Coast Steel Corporation

APPENDIX F

NEGATIVE DECLARATION

STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

REGION 2
700 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737

NEGATIVE DECLARATION APPROVAL

Project Title: Barbary Coast Steel Site

State Clearinghouse Number: 96032080

Contact Person and Telephone: Ted Park (510)540-3847

Project Location: 4300 Eastshore Highway
Emeryville, California

Project Description:

Excavation of contaminated soil and backfill with clean soil and capping the site for an industrial/commercial land use along with a groundwater monitoring program.

The Department of Toxic Substances Control has found on the basis of the Initial Study and comments received on the Negative Declaration that there is no substantial evidence that this project will have a significant effect on the environment.

I hereby approve the Negative Declaration for this project.

Signature: Barbara J Cook Date: 6/3/96

Barbara J. Cook, P.E.
Site Mitigation Branch Chief
Department of Toxic Substances Control

Revised by DTSC, PEAS 5/18/93
NDAPPROV.FRM

PETE WILSON
GOVERNOR

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

LEE GRISSOM
DIRECTOR

April 17, 1996

TED PARK
DEPT OF TOXIC
700 HEINZ AVENUE
ALAMEDA, CA 947109

Subject: BARBARY COAST STEEL CORPORATION SCH #: 96032080

Dear TED PARK:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call Kristen Derscheid at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Notice of Completion and Environmental Document Transmittal Form

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 — 916/445-0613

See NOTE below

SCH # [illegible]

1. Project Title: BarbaryCoast Steel Corporation
2. Lead Agency: DTSC/REgion 2
2a. Street Address: 700 Heinz Ave., Ste. 200
2c. County: Alameda
2d. Zip: 94710
3. Contact Person: Ted Park
3b. City: Berkeley
3c. Phone: (510) 540-3847

Project Location — Specific: 4300 East Shore Highway, Emeryville, CA
4. County: Alameda
4a. City/Community: Emeryville and Oakland
4b. Assessor's Parcel No.
4c. Section ____ Twp. ____ Range ____
5a. Cross Streets: Shellmound Street
5b. For Rural, Nearest Community
6. Within 2 miles: a. State Hwy # ✓ b. Airports
c. Railways ✓ d. Waterways ✓

7. Document Type
CEQA: 01 ☐ NOP; 02 ☐ Early Cons; 03 ☒ Neg Dec; 04 ☐ Draft EIR; 05 ☐ Supplement/Subsequent EIR (Prior SCH No. ____); 06 ☐ NOE; 07 ☐ NOC; 08 ☐ NOD
NEPA: 09 ☐ NOI; 10 ☐ FONSI; 11 ☐ Draft EIS; 12 ☐ EA
OTHER: 13 ☐ Joint Document; 14 ☐ Final Document; 15 ☐ Other ____

8. Local Action Type
01 ☐ General Plan Update; 02 ☐ New Element; 03 ☐ General Plan Amendment; 04 ☐ Master Plan; 05 ☐ Annexation; 06 ☐ Specific Plan; 07 ☐ Community Plan; 08 ☐ Redevelopment; 09 ☐ Rezone; 10 ☐ Land Division (Subdivision, Parcel Map, Tract Map, etc.); 11 ☐ Use Permit; 12 ☐ Waste Mgmt Plan; 13 ☐ Cancel Ag Preserve; 14 ☒ Other Draft RAP
MAR 16 1996

9. Development Type
01 ☐ Residential: Units ____ Acres ____
02 ☐ Office: Sq.ft. ____ Acres ____ Employees ____
03 ☐ Shopping/Commercial: Sq.ft. ____ Acres ____ Employees ____
04 ☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
05 ☐ Water Facilities: MGD ____
06 ☐ Transportation: Type ____
07 ☐ Mining: Mineral ____
08 ☐ Power: Type ____ Watts ____
09 ☐ Waste Treatment: Type ____
10 ☐ OCS Related
11 ☒ Other: Capping

10. Total Acres: 14.4
11. Total Jobs Created

12. Project Issues Discussed in Document
01 ☐ Aesthetic/Visual; 02 ☐ Agricultural Land; 03 ☐ Air Quality; 04 ☐ Archeological/Historical; 05 ☐ Coastal Zone; 06 ☐ Economic; 07 ☐ Fire Hazard; 08 ☐ Flooding/Drainage; 09 ☐ Geologic/Seismic; 10 ☐ Jobs/Housing Balance; 11 ☐ Minerals; 12 ☐ Noise; 13 ☐ Public Services; 14 ☐ Schools; 15 ☐ Septic Systems; 16 ☐ Sewer Capacity; 17 ☐ Social; 18 ☐ Soil Erosion; 19 ☐ Solid Waste; 20 ☐ Toxic/Hazardous; 21 ☐ Traffic/Circulation; 22 ☐ Vegetation; 23 ☐ Water Quality; 24 ☐ Water Supply; 25 ☐ Wetland/Riparian; 26 ☐ Wildlife; 27 ☐ Growth Inducing; 28 ☐ Incompatible Land Use; 29 ☐ Cumulative Effects; 30 ☒ Other Draft RAP

13. Funding (approx.) Federal $ ____ State $ ____ Total $ ____

14. Present Land Use and Zoning: Commercial/Industrial

15. Project Description: Excavation of contaminated soils and capping the site with fill material and asphalt.

16. Signature of Lead Agency Representative: [signature] Date: 3/15/96

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill in it.

State Clearinghouse Contact: Ms. Dana Lidster (916) 445-0613

State Review Began: 3.18.96
Dept. Review to Agency: 4.10
Agency Rev to SCH: 4.15
SCH COMPLIANCE: 4.17

Please note SCH Number on all Comments

96032050

Please forward late comments directly to the Lead Agency

AQMD/APCD 2 (Resources: 3.23

[illegible]

Project Sent to the following State Agencies

- X Resources
- ___ Boating
- ___ Coastal Comm
- ___ Coastal Consv
- ___ Colorado Rvr Bd
- X Conservation
- X Fish & Game # 3
- ___ Delta Protection Commission
- ___ Forestry
- ___ Parks & Rec/OHP
- ___ Reclamation
- X BCDC
- X DWR
- ___ OES
- **Bus Transp Hous**
- ___ Aeronautics
- X CHP
- X Caltrans # 4
- ___ Trans Planning
- **Housing & Devel**
- **Health & Welfare**
- ___ Drinking H20
- ___ Medical Waste
- **State/Consumer Svcs**
- ___ General Services
- **Cal/EPA**
- ___ ARB
- ___ CA Waste Mgmt Bd
- ___ SWRCB: Grants
- ___ SWRCB: Delta
- ___ SWRCB: Wtr Quality
- ___ SWRCB: Wtr Rights
- X Reg. WQCB # 2
- ___ DTSC/CTC
- **Yth/Adlt Corrections**
- ___ Corrections
- **Independent Comm**
- ___ Energy Comm
- ___ NAHC
- X PUC
- ___ Santa Mn Mtns
- X State Lands Comm
- ___ Tahoe Rgl Plan
- ___ Other: ____

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

REGION 2
700 HEINZ AVE., SUITE 200
KELEY, CA 94710-2737

NOTICE OF DETERMINATION
CERTIFICATE OF FEE EXEMPTION

Substitute of Form C

To: Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

From: Department of Toxic Substances Control
Office of Policy & Environmental Analysis
Planning and Environmental Analysis Section
400 P Street, Room 4310
P.O. Box 806
Sacramento, CA 95812-0806

Project Title: Barbary Coast Steel Site

State Clearinghouse Number: 96032080

Contact Person and Telephone: Ted park, (510) 540-3847

Project Location: 4300 Eastshore Highway, Emeryville, California

Project Description: Excavation of contaminated soil and backfill with clean soil and cap the site and groundwater monitoring.

Date project approved: *June 03, 1996*

This Notice of Determination is filed in compliance with Section 21108 of the Public Resources Code. The Department of Toxic Substances Control (Department), as lead agency, has approved the above described project and the attached Negative Declaration, and has certified the attached finding of de minimis.

The Department has made the determination that the project will not have a significant effect on the environment.

A de minimis finding for this project is attached pursuant to Section 711.4 of the Fish and Game Code, Section 21089 of the Public Resources Code, and Section 753.5 of Title 14 of the California Code of Regulations.

The attached Negative Declaration was prepared for this project pursuant to the provisions of CEQA. A copy of this Negative Declaration may be examined at the above address of the Department of Toxic Substances Control.

Signature: Barbara J. Cook Date: 6/10/96
Branch Chief

Date received for filing at OPR:

NOD FILING CHECKLIST

This checklist outlines all the required contents of the Notice of Determination (NOD) pursuant to the California Environmental Quality Act (CEQA) and all required information for filing and payment of filing fees through the Planning and Environmental Analysis Section's (PEAS) CEQA Tracking Center (CTC). For further information regarding Notices of Determination, Initial Studies, Negative Declarations, Environmental Impact Reports, Findings of De Minimis, and Certificates of Fee Exemption, contact the PEAS Unit at (916) 322-8162 or CALNET 492-8162.

Instructions:

a) Review your NOD to assure it contains items 1 through 10.

NOTE: If you are also filing a Finding of De Minimis, use the combined Notice of Determination/Certificate of Fee Exemption form available from PEAS. Do not attempt to file a Finding of De Minimis unless you have consulted PEAS while conducting your Initial Study, and have documented your analysis of De Minimis conditions in the Initial Study checklist.

b) Fill in information requested in items 1, 3, 4, and 11 through 15.

c) Send this form along with items 16 through 21 to:

CEQA Tracking Center
Planning and Environmental Analysis Section
P.O. Box 806
Sacramento, CA 95812-0806

Contents of Notice of Determination:

_x_ 1. **Identification of the project including the common name, if any. Please also write the name of the project here.**

Barbary Coast Steel Site

Proposed Remedial Action

_x_ 2. **Signature of the Director, Deputy Director, or Branch Chief.** NODs for regulations should have the signature of the Director or one who is designated by the Director to approve regulations.

_x_ 3. **State Clearinghouse Number.** The State Clearinghouse number is assigned by the Governor's Office of Planning and Research (OPR) State Clearinghouse when ten copies of a proposed Negative Declaration or draft Environmental Impact Report are sent to them for responsible agency review. If you cannot locate this number, call the State Clearinghouse at (916) 445-0613, CALNET 485-0613.

Write the State Clearinghouse number here, and include the State Clearinghouse number in the NOD.

_96032080_

_x_ 4. **Date on which the Director, Deputy Director, or Branch Chief approved the project**, i.e., the date the permit, variance, Remedial Action Plan, Record of Decision, Standard 400 form (STD 400), etc., was signed by the Department.

Write the date here and include the date in the NOD.

_*06/03/96*_

Site Mitigation - If both a Remedial Action Plan and a Record of Decision were approved, list both dates here, but only include the Remedial Action Plan date in the NOD.

_x_ 5. **Location of the project.**

_x_ 6. **Brief description of the project.**

_x_ 7. **Determination that the project will or will not have a "significant effect on the environment" as that term is used in Section 15382 of Title 14 of the Natural Resources Code.**

_x_ 8. **Indication if either an EIR or a Negative Declaration has been prepared.**

_x_ 9. **Address where the EIR or Negative Declaration may be examined.**

_NA_ 10. **If a determination was made that the project will have a significant effect on the environment, include in the NOD a statement of overriding consideration or a reference to where in the record the statement of overriding considerations is found. If the project will not have a significant effect, write "NA" next to the number 10 in this paragraph.** Refer to Sections 15091,

15092, and 15093 of Title 14 of the Natural Resources Code.

Other information needed for filing of NOD and payment of fees:

11. **Administrative Appeal Period**

Directions for Site Mitigation projects: Leave this item blank. It is not applicable to your project.

Directions for Permits: If there is no likelihood of an administrative permit appeal based on substantive comments received on the environmental concerns with the project, then **enter N/A.** If you enter a date here, the NOD will be held and will not be filed until after that date.

If there is a likely appeal, DTSC should not file the Notice of Determination until after the appeal is completed. Enter the end date of the window for the filing of permit appeals in such cases. This is normally 30 days after the permit was approved. The CEQA Tracking Center will contact you on that date regarding any appeals before filing the NOD. If an appeal has been filed and resolved, enter the date it was resolved below.

Directions for Regulations: Indicate the date that the Governor's Office of Administrative Law sent the regulation to the Secretary of State. If you are submitting this form before that date, leave the item blank. The CEQA Tracking Center will hold the NOD and will not file it until it receives word that the regulations were received by the Secretary of State.

Enter End Date of Administrative Appeal Filing Period if Applicable: _____

12. **Index Number** (from time sheet).

5200

13. **PCA number** (from time sheet).

11140

14. **Site number and WP** (from time sheet).

200312 00

15. **Contact Information:**

Lead staff person Ted Park

Telephone of lead staff person (510) 540-3847

PROFS ID, if any, of lead staff person TPARK

Region of lead staff person Berkeley

Lead staff person's supervisor Stephen A. Cimperman

Supervisor's telephone (510)540-3791

Supervisor's PROFS ID SCIMPERMAN

Documents to send to the Planning and Environmental Analysis Section:

x 16. **The signed original NOD, or the signed original NOD/Certificate of Fee exemption form.** The NOD must contain all the elements outlined in Numbers 1 through 10 above. If exemption from NOD filing fees is being sought, use the combined Notice of Determination/ Certificate of Fee Exemption form available from PEAS, instead of a standard NOD. Do not attempt to file a Certificate of Fee Exemption or Finding of De Minimis unless you have documented your analysis of De Minimis conditions in the Initial Study checklist and have consulted PEAS before the responsible agency and public review periods.

x 17. **One copy of #16 above.**

x 18. **One copy of the formal record declaring that the Department has approved the Negative Declaration or the Environmental Impact Report.** PEAS has a form which may be signed by a branch chief and used as the formal record.

x 19. **One copy of the approved final version of the Negative Declaration and Initial Study, or the approved final version of the Environmental Impact Report.**

x 20. **A Finding of De Minimis, if a Certificate of Fee Exemption is being filed.**

x 21. **A copy of number 20 above.**

Notice of Completion and Environmental Document Transmittal Form

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 — 916/445-0613

See NOTE below

SCH # _____

1. Project Title BarbaryCoast Steel Corporation

2. Lead Agency DTSC/REgion 2

3. Contact Person Ted Park

3a. Street Address 700 Heinz Ave., Ste. 200

3b. City Berkeley

3c. County Alameda

3d. Zip 94710

3e. Phone (510) 540-3847

Project Location — Specific 4300 East Shore Highway, Emeryville, CA

4. County Alameda

4a. City/Community Emeryville and Oakland

4b. Assessor's Parcel No. _____

4c. Section _____ Twp. _____ Range _____

5a. Cross Streets Shellmound Street

5b. For Rural, Nearest Community _____

6. Within 2 miles: a. State Hwy # ✓

b. Airports _____

c. Railways ✓

d. Waterways ✓

7. Document Type

CEQA: 01. ☐ NOP; 02. ☐ Early Cons; 03. ☑ Neg Dec; 04. ☐ Draft EIR; 05. ☐ Supplement/Subsequent EIR (Prior SCH No. _____); 06. ☐ NOE; 07. ☐ NOC; 08. ☐ NOD

NEPA: 09. ☐ NOI; 10. ☐ FONSI; 11. ☐ Draft EIS; 12. ☐ EA

OTHER: 13. ☐ Joint Document; 14. ☐ Final Document; 15. ☐ Other _____

8. Local Action Type

01. ☐ General Plan Update
02. ☐ New Element
03. ☐ General Plan Amendment
04. ☐ Master Plan
05. ☐ Annexation
06. ☐ Specific Plan
07. ☐ Community Plan
08. ☐ Redevelopment
09. ☐ Rezone
10. ☐ Land Division (Subdivision, Parcel Map, Tract Map, etc.)
11. ☐ Use Permit
12. ☐ Waste Mgmt Plan
13. ☐ Cancel Ag Preserve
14. ☑ Other Draft RAP

9. Development Type

01. ☐ Residential: *Units* _____ *Acres* _____
02. ☐ Office: *Sq.ft.* _____ *Acres* _____ *Employees* _____
03. ☐ Shopping/Commercial: *Sq.ft.* _____ *Acres* _____ *Employees* _____
04. ☐ Industrial: *Sq.ft.* _____ *Acres* _____ *Employees* _____
05. ☐ Water Facilities: *MGD* _____
06. ☐ Transportation: *Type* _____
07. ☐ Mining: *Mineral* _____
08. ☐ Power: *Type* _____ *Watts* _____
09. ☐ Waste Treatment: *Type* _____
10. ☐ OCS Related
11. ☑ Other: Capping

10. Total Acres 14.4

11. Total Jobs Created _____

12. Project Issues Discussed in Document

01. ☐ Aesthetic/Visual
02. ☐ Agricultural Land
03. ☐ Air Quality
04. ☐ Archaeological/Historical
05. ☐ Coastal Zone
06. ☐ Economic
07. ☐ Fire Hazard
08. ☐ Flooding/Drainage
09. ☐ Geologic/Seismic
10. ☐ Jobs/Housing Balance
11. ☐ Minerals
12. ☐ Noise
13. ☐ Public Services
14. ☐ Schools
15. ☐ Septic Systems
16. ☐ Sewer Capacity
17. ☐ Social
18. ☐ Soil Erosion
19. ☐ Solid Waste
20. ☐ Toxic/Hazardous
21. ☐ Traffic/Circulation
22. ☐ Vegetation
23. ☐ Water Quality
24. ☐ Water Supply
25. ☐ Wetland/Riparian
26. ☐ Wildlife
27. ☐ Growth Inducing
28. ☐ Incompatible Land Use
29. ☐ Cumulative Effects
30. ☑ Other Draft RAP

13. Funding (approx.) Federal $ _____ **State $** _____ **Total $** _____

14. Present Land Use and Zoning Commercial/Industrial

15. Project Description Excavation of contaminated soils and capping the site with fill material and asphalt.

16. Signature of Lead Agency Representative X Barbara J. Cox **Date** 3/15/96

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill it in.

Form Revised 4/86 — Replaces CA189

Mark Distribution on Reverse

• GUIDELINES

DE MINIMIS IMPACT FINDING
FOR THE DRAFT REMEDIAL ACTION PLAN
BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, ALAMEDA COUNTY, CALIFORNIA

PROJECT PROPONENT

Barbary Coast Steel Corporation
2424 S.W. Andover
Seattle, WA 98106

Contact: Barton D. Kale
(206) 933-2200

PROJECT DESCRIPTION

The Barbary Coast Steel (BCS) facility is located at 4300 East Shore Highway in Emeryville, California, approximately 1/3 mile east of San Francisco Bay. The site is approximately 1,700 feet long and 500 feet wide, and covers 14.4 acres. The site is immediately east of the Interstate 80. Historically, the site had been used to manufacture steel from scrap metal and operated from approximately 1882 until the facility closed in 1991. All of the structures have been dismantled and the site is presently vacant.

In March 1993, the Department of Toxic Substances Control (Department) issued a Consent Order to investigate and remediate the site. The results of a remedial investigation at the site indicated that the soils at the scrap yard, adjacent to the former baghouse, beneath the former BCS building, at the former underground tank area, and along the northern property boundary contained polychlorinated biphenyls (PCBs), lead, and petroleum hydrocarbons. The upper three to seven feet of soils have been affected by these compounds. Compounds detected in the shallow groundwater at the site will not have a significant adverse impact on human health or the environment. In addition, groundwater at the site is not suitable for potable use due to naturally occurring high levels of dissolved solids associated with San Francisco Bay.

The proposed remedial action provides for implementation of the following remedial activities: 1) excavation, removal and disposal of contaminated soils; 2) removal and disposal of groundwater within the excavated areas; 3) backfilling and grading of excavated areas; 4) capping of the site; 5) implementation of an operation, maintenance & monitoring program for groundwater and cap; and 6) recording land use restrictions.

The property is expected to be developed for commercial use. In addition, the City of Emeryville Redevelopment Agency is planning on building a shopping plaza on the neighboring

properties to the north and northwest. Groundwater will be monitored and managed under the requirements of the Non-Attainment Area policy issued by the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

Deed restrictions which limit the future use of the site solely to commercial and industrial uses and requiring the advance approval by the Department before subsurface work can take place will be recorded.

INITIAL STUDY INFORMATION

The initial study has been conducted by the Department to evaluate the possibility of significant effect. A copy of the initial study and checklist are attached.

DECLARATION OF NO EVIDENCE OF POTENTIAL ADVERSE EFFECT

When considering the initial study and the record, there is no evidence before the Department that the proposed project will have potential for an adverse effect on wildlife resources or the habitat upon which the wildlife depends.

DECLARATION OF REBUTMENT OF PRESUMPTION

The Department has, on the basis of substantial evidence, rebutted the presumption of adverse effect contained in Section 753.5(d), Title 14 of the California code of Regulations.

CERTIFICATION

The Department of Toxic Substances Control certifies that it, as lead agency, has made the above findings of fact and that based upon the initial study and upon the record, the project will not individually or cumulatively have an adverse effect on wildlife resources, as defined in Section 711.2 of the Fish and Game Code. Signature verifying this certification is attached.

Signature _____ Date 3/14/96
Project Manager

Signature _____ Date 3/14/96
Unit Chief

Signature _____ Date 3/14/96
Branch Chief

PROPOSED NEGATIVE DECLARATION
FOR THE DRAFT REMEDIAL ACTION PLAN
BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, ALAMEDA COUNTY, CALIFORNIA

PROJECT PROPONENT

Barbary Coast Steel Corporation
2424 S.W. Andover
Seattle, WA 98106

Contact: Barton D. Kale
(206) 933-2200

PROJECT DESCRIPTION

The Barbary Coast Steel (BCS) facility is located at 4300 East Shore Highway in Emeryville, California, approximately 1/3 mile east of San Francisco Bay. The site is approximately 1,700 feet long and 500 feet wide, and covers 14.4 acres. The site is immediately east of Interstate 80. (See Figure 1). Historically, the site had been used to manufacture steel from scrap metal and operated from approximately 1882 until the facility closed in 1991. All of the structures have been dismantled and the site is presently vacant.

In March 1993, the Department of Toxic Substances Control (Department) issued a Consent Order to investigate and remediate the site. The results of a remedial investigation at the site indicated that the soils at the scrap yard, adjacent to the former baghouse, beneath the former BCS building, at the former underground storage tank area, and along the northern property boundary contained polychlorinated biphenyls (PCBs), lead, and petroleum hydrocarbons. The upper three to seven feet of soils have been affected by these compounds. Compounds detected in the shallow groundwater at the site will not have a significant adverse impact on human health or the environment. In addition, groundwater at the site is not suitable for potable use due to naturally-occurring high levels of dissolved solids associated with San Francisco Bay.

The proposed remedial action provides for implementation of the following remedial activities: 1) excavation, removal and disposal of contaminated soils; 2) removal and disposal of groundwater within the excavated areas; 3) backfilling and grading of excavated areas; 4) capping of the site; 5)

implementation of an operation, maintenance & monitoring program; 6) and recording land use restrictions.

The property is expected to be developed for commercial use. In addition, the City of Emeryville Redevelopment Agency is planning to develop a shopping plaza on the neighboring properties to the north and northwest. Groundwater will be monitored and managed under the requirements of the Non-Attainment Area Policy issued by the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). The soil excavation areas and groundwater monitoring wells are shown on Figure 2.

Deed restrictions will be recorded, limiting the future use of the site solely to commercial and industrial uses and requiring notification and/or approval from the Department before subsurface work can take place.

PROJECT LOCATION

The site is located at 4300 East Shore Highway in Emeryville, California. It is bordered by the Myers Drum site to the north, Southern Pacific Railway tracks to the east, and Interstates 80 and 580 to the west and south.

Local maps show that the nearest surface water is Temescal Creek, about 900 feet north of the site. The creek originates in the East Bay Hills and drains largely urbanized land area into San Francisco Bay. The creek has been channeled and lined with concrete.

FINDINGS OF SIGNIFICANT EFFECT ON ENVIRONMENT

The Department has determined that the proposed remedial action for the Barbary Coast Steel site in Emeryville will not have a significant effect on the environment as that term is defined in the Public Resources Code Section 21068. A copy of the Initial Study which supports this finding is attached.

MITIGATION MEASURES

Conditions and/or controls on the project which are agreed to by the project proponent and which will be implemented through the final RAP and/or other public agency laws, ordinances, regulations or standards are described in the initial study. Assuming full compliance with these controls, they are sufficient to limit the project impacts to an insignificant level. Thus, no additional mitigation measures are required.

LEAD AGENCY

This proposed Negative Declaration has been prepared by the Department in accordance with the California Environmental Quality Act. Questions and comments on this Negative Declaration should be directed to:

Ted Park, Project Officer
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710
Tel. (510) 540-3847

Signature _____ Date 3/14/96
Project Manager

Signature _____ Date 3/14/96
Unit Chief

Signature _____ Date 3/14/96
Branch Chief

INITIAL STUDY
FOR THE DRAFT REMEDIAL ACTION PLAN
BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, ALAMEDA COUNTY, CALIFORNIA

PROJECT DESCRIPTION

Barbary Coast Steel Corporation is seeking approval of a Draft Remedial Action Plan (DRAP) from the Department of Toxic Substances Control (Department). The DRAP proposes activities to address soil and groundwater contamination. Due to the different contaminants and contaminant types found at the site, there are few technologies available and no single technology can address the overall remediation of the site. Therefore, several different technologies were combined in order to develop the remedial alternatives. The alternatives considered for the Site are:

A - No action
B - Capping the site and deed restrictions
C - Excavation near the baghouse with off-site disposal of soils plus all of B
D1 -PCB excavation with off-site disposal plus all of C
D2 -Lead excavation with off-site disposal plus all of D1
D3 -Petroleum hydrocarbon excavation with off-site disposal plus all of D2
E - Petroleum hydrocarbon excavation with on-site bioremediation plus all of D2

The remedial alternative proposed by the DRAP (alternative D3 shown above) includes the following activities: 1) excavation, removal and disposal of contaminated soils; 2) removal and disposal of groundwater within the excavated areas; 3) backfilling and grading of excavated areas; 4) capping of the site; 5) implementation of an operation, maintenance & monitoring program; 6) and recording land use restrictions.

The objective of soil excavation will be to remove soils with concentrations of contaminants which exceed the following cleanup levels: polychlorinated biphenyls, 10 milligrams per kilogram (mg/kg); lead, 5,000 mg/kg; total petroleum hydrocarbons, 26,000 mg/kg (applicable to most of the Site); diesel, 1,000 mg/kg (applicable along the northern property boundary and where underground storage tanks were previously located). Approximately 3,100 cubic yards of contaminated soil will be excavated using conventional excavation equipment and disposed at a permitted disposal facility. The major excavation areas are in the scrap yard, under the former BCS building floor, adjacent to the former baghouse, the former underground storage tank area, and along the northern property boundary (See Figure

2). The total excavated area is approximately 18,000 square feet. The depth of the excavations is expected to range between 3 to 7 feet below the ground surface. Excavated areas will be backfilled with suitable fill material and graded to conform approximately to the surrounding ground surface.

The excavations are expected to extend somewhat below the groundwater surface and water entering the excavations will be pumped into aboveground tanks, and treated on site or transported to a permitted off-site treatment and disposal facility. The total estimated volume of water that may be removed is approximately 80,000 gallons.

This Initial Study is prepared for the DRAP, which is in the second step of the Department site remediation process. The Department of Toxic Substances Control (Department) site mitigation process consists of four steps: 1) Remedial Investigation/Feasibility Study (RI/FS) -- Extensive sampling and analyses are performed and potential remediation alternatives are developed, evaluated and selected; 2) Draft Remedial Action Plan (DRAP) -- The DRAP contains a summary of the cleanup options and outlines the Department's proposed remedial activities at the site. The availability of the DRAP is publicized in the local newspaper, a public meeting is held, and comments are solicited for 30 days; 3) Final Remedial Action Plan (Final RAP) -- Following the public comment period, the DRAP is revised as deemed appropriate based on the public comments and the Department approves the final remedial action plan for the site; 4) Remedial Design and Implementation -- The Department oversees the design and implementation of the remedy selected. The construction details for the remedial alternative will be developed during the design stage.

After contaminated soils are excavated and removed, it is anticipated that the site will be developed as a commercial property. Soil with contaminants below the cleanup levels will be covered by the buildings or pavement that are constructed. If redevelopment of the site does not occur by March 1998, all currently unpaved areas will be covered with a cap comprised of 1-1/2 to 2 inches of asphalt. The purpose of cap is to preclude human contact with contaminated soil, limit infiltration of precipitation through contaminated soil, and prevent migration of dust from the site. The DRAP also provides for appropriately characterizing existing concrete that is removed during site construction and appropriately disposing this material. The approximate volume of concrete to be removed and the specific methods for characterizing the concrete will be described in the Remedial Design phase.

The estimated time to remove and replace the contaminated soils as described in the DRAP is expected to be from three to

six months. Capping is expected to require an additional 6 to 12 months depending on the development schedule. During the construction period, approximately 10 to 20 trucks per day transporting equipment and material may be traveling in and out of the site. This estimated traffic volume includes the trucks used to transport equipment for groundwater treatment or disposal. The increase in truck traffic is expected to be intermittent and is not expected to be significant since the proposed project will be implemented over a relatively short period of time. The remedial activities as described in the DRAP will not require any roads to be closed or traffic diverted. Trucks will use Shellmound Street and Powell Street to access Interstate 80.

Some small amount of dust and vapor may be generated during excavation and backfilling. Potential emissions will be abated by spraying water or applying a dust suppressant. Estimates of potential air emissions are not available. However, perimeter air monitoring will be performed to ensure compliance with Bay Area Air Quality Management District (BAAQMD) regulations pertaining to the emission of dust and lead.

A health and safety plan will be prepared as part of the Remedial Design phase prior to implementation of the project. Personnel air sampling will be performed to monitor worker exposure to contaminated dusts generated during the construction activities. Personal protective equipment, including respiratory protection, will be worn by workers implementing the project where appropriate. The project will be performed by personnel trained in accordance with state and federal standards for hazardous waste site workers. These proposed remedial activities are subject to regulation under Title 8, Section 5192 of the California Code of Regulations.

An operation, maintenance and monitoring program will be prepared and approved by the Department during the Remedial Design phase. The program will include visual inspection of the cap for the presence of any cracks or potholes and groundwater monitoring. Groundwater monitoring to track groundwater conditions after the site remediation will be conducted in conformance with the requirements established under the RWQCB's Non-Attainment Zone Policy. On-going quarterly groundwater monitoring at the site will include measurements of water levels and collection of groundwater samples from the selected existing monitoring wells. Several existing monitoring wells will be removed and replaced as necessary, to excavate certain areas at the site. The Remedial Design report will include a schedule for inspection of the cap and for periodic groundwater monitoring.

Deed restrictions will be recorded which will limit the future use of the site solely to commercial and industrial uses

and require notification and/or approval from the Department before subsurface work can take place.

PROJECT SITE BACKGROUND

Barbary Coast Steel Corporation has owned the site since 1987, when it was acquired from Judson Steel Corporation, the previous owner. The steel manufacturing operations from approximately 1882 to 1991 resulted in contamination of the soil and groundwater at the site. In 1991, BCS ceased operations and the Site is presently vacant.

In 1993, the Department of Toxic Substances Control (Department) issued a Consent Order to characterize and remediate the site. Consultants for Barbary Coast Steel have performed numerous subsurface investigations and analyses between 1987 and 1995. The results of remedial investigation at the site indicate that the soils at the scrap yard, adjacent to the baghouse, beneath the BCS building, at the former underground storage tank area, and along the northern property boundary contain polychlorinated biphenyls (PCBs), lead, and petroleum hydrocarbons. The upper three to seven feet of soils have been affected, particularly along the northern property boundary. Impacts to groundwater are limited to the shallow zone.

ENVIRONMENTAL SETTING

a) Project Location

The site is located at 4300 East Shore Highway in Emeryville, California. It is bordered by the Myers Drum site to the north, Southern Pacific Railway tracks to the east, and Interstates 80 and 580 to the west and south. The closest residential areas are over 1,500 feet to the southeast of the site. A shopping center is located approximate 1/4 mile northwest of the site.

b) Project Site Hydrogeology

The site is located along the East Bay Plain of San Francisco Bay in the Berkeley Plain subarea. The East Bay Plain is part of the Coastal Range Province of Western California. The dominant geologic formations beneath the Emeryville and western Oakland area are unconsolidated and consolidated units identified as the Temescal and Alameda formations, and Franciscan Complex, respectively. The Barbary Coast Steel site is underlain by

artificial fill material and alluvial fan deposits of the Temescal Formation. The artificial fill material consists of sandy soil with metal, concrete, and slag fragments. The thickness of the fill ranges from 3 to 10 feet.

The elevation of the site ranges approximately from 7 to 10 feet above Mean Sea Level (MSL). The groundwater elevations vary seasonally ranging from 3 to 7 feet from the ground surface. Groundwater flow across the site is generally toward the southwest, with an average hydraulic gradient of 0.005 vertical feet per horizontal foot.

c) Surrounding Land Use

The area around the property has been developed or is planned to be developed for industrial, commercial, office and administrative use. On the southern and western sides of the site, the City of Emeryville and CalTrans are constructing new roadways and expanding the existing interstates. The Emeryville Redevelopment Agency, currently plans to develop the properties to the north and northwest as a shopping plaza.

According to a June 1988 Alameda County Fire Control District report, the resident population density in this area is less than 100 persons per square mile.

d) Climatology and Air Quality

The San Francisco Bay area has a Mediterranean type of climate, with winter rains and summer dryness. The City of Emeryville receives an average annual rainfall of approximately 21 inches. The average temperature range for Emeryville area is indicative of a temperate climate, with an average maximum temperature of 63 degrees Fahrenheit and an average minimum temperature of 52 degrees Fahrenheit.

Emeryville is located in the San Francisco Bay Area Air Basin, as defined by state and federal agencies. BAAQMD monitors the basin for ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, and suspended particulate matter. The basin is divided into six sub-regions, and air quality is monitored at twenty five stations within these sub-regions. Ambient air quality at the Oakland monitoring station near Emeryville has been excellent in the past few years. For the years 1990 through 1992, no exceedances of the federal or the much more stringent California ozone standard were detected at this station. In addition, the federal carbon monoxide standard was not exceeded for the years 1990 through 1992.

e) Biological Resources

Plants found on the project site are limited to ruderal species found in cracks in the asphalt, along with trees and grasses. Vegetation in the vicinity of the project area consists of trees, shrubs, and grasses, associated with lawns and other landscaped settings. According to the Natural Diversity Database (September 28, 1995) provided by the Department of Fish and Game, no natural wildlife communities are present within the project area.

SIGNIFICANT EFFECTS AND MITIGATION MEASURES

The Department has determined that implementation of the proposed remedial action plan will not have a significant effect on the environment as that term is defined in the Public Resources Code 21068. This conclusion is based on information obtained from the site Remedial Investigation and Feasibility Study, observation of the site by Department staff, and the completion of the Initial Study Checklist. Conditions and/or controls on the project which are agreed to by the project proponent and which will be implemented through the final RAP and/or other public agency laws, ordinances, regulations or standards are described in the initial study. Assuming full compliance with these controls, they are sufficient to limit the project impacts to an insignificant level. Thus, no additional mitigation measures are required. The attached checklist was used to identify possible mitigation measures.

ZONING, PLANS, AND OTHER APPLICABLE LAND USE CONTROL

The site and neighboring properties have been designated by the City of Emeryville as a redevelopment area called "the Bayfront." The Bayfront will likely be used for commercial purposes based on city planning commission preferences. The proposed remedial action will allow commercial development of the site to occur.

This initial study has been prepared solely by the Department of Toxic Substances Control.

REFERENCES

1. Remedial Investigation, Barbary Coast Steel Corporation, Emeryville California, (EMCON, October 27, 1993).

2. Addendum to the Remedial Investigation Report, Barbary Coast Steel Corporation, Emeryville, California, (EMCON, April 28, 1994).

3. Public Health and Environmental Evaluation Report, Barbary Coast Steel Corporation, Emeryville, California, (EMCON, January 4, 1994).

4. Feasibility Study, Barbary Coast Steel Corporation, Emeryville, California, (EMCON, January 9, 1996).

5. Draft Remedial Action Plan, Barbary Coast Steel Corporation, Emeryville, California, (EMCON, March 15, 1996).

INITIAL STUDY SPECIAL CHECKLIST
FOR THE DRAFT REMEDIAL ACTION PLAN
BARBARY COAST STEEL FACILITY
4300 EAST SHORE HIGHWAY
EMERYVILLE, ALAMEDA COUNTY, CALIFORNIA

The purposes of this checklist are, 1) to identify any reasonable possibility of "significant effect on the environment" as that term is used in Section 21068 of the Public Resources Code; and 2) to identify "adverse effect, either individually or cumulatively, on wildlife" as that term is used in Sections 753.5 (c) and (d) of Title 14 of the California Code of Regulations.

"Significant effect on the environment" (significant effect) means a substantial, or potentially substantial, adverse change in the environment.

"Adverse effect, either individually or cumulatively, on wildlife: means an adverse change of any type or degree, either individually or cumulatively, on any wild animals, birds, plants, fish, amphibians, and related ecological communities, including the habitat upon which the wildlife depends for its continued viability. (Refer to items contained in the shaded boxes.)

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
1. **EARTH.** Will the project result in:			
a. Unstable earth conditions or in changes in geologic structures?	___	___	X
b. Disruptions, displacements, compaction or overcovering of the soil?	___	___	X
c. Change in topography or ground surface relief features?	___	___	X
d. The destruction, covering or modification of any unique geologic or physical features?	___	___	X
e. Any increase in wind or water erosion of soils, either on or off the site?	___	___	X

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	___	____	X
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	___	____	X
h. Changes to any riparian land or wetlands under state or federal jurisdiction?	___	____	X
i. Changes to soil required to sustain habitat for fish and wildlife:	___	____	X

Explanation: No significant impacts are anticipated under this category. Approximately 3,100 cubic yards of contaminated soil will be excavated using conventional excavation equipment and disposed at a permitted disposal facility. The major excavation areas are in the scrap yard, under the former warehouse building floor, adjacent to the former baghouse, at the former underground storage tank area, and along the northern property boundary (See Figure 2). The depth of the excavations is expected to range between 3 to 7 feet below the ground surface. The objective of soil excavation will be to remove soils with concentrations of contaminants which exceed cleanup levels based on human health and water quality considerations. The following are cleanup levels that will serve as a criterion for soil excavation: polychlorinated biphenyls, 10 milligrams per kilogram (mg/kg); lead, 5,000 mg/kg; total petroleum hydrocarbons, 26,000 mg/kg ; diesel, 1,000 mg/kg. Excavated areas will be backfilled with imported fill material and graded to conform approximately to the surrounding ground surface.

It is anticipated that the site will be developed as a commercial property and soil with contaminants below the cleanup levels will be covered by the buildings or pavement that are constructed. If redevelopment of the site does not occur before March 1998, all currently unpaved areas will be covered with a cap comprised of 1-1/2 to 2 inches of asphalt. The purpose of cap is to preclude human contact with contaminated soil, limit infiltration of precipitation through contaminated soil, and prevent migration of

dust from the site. The cap of the site will prevent wind and surface water erosion of surface soils. These operations will not substantially raise the overall site elevation.

No riparian land or wetlands occur on the Site. Temescal Creek is the nearest watercourse to the Site and is located approximately 900 feet to the north. The nearest wetlands are on the fringe of San Francisco Bay, which is located approximately 1/2 mile east of the Site. Therefore, no alteration of soil in riparian lands, wetlands, or in fish and wildlife habitats will occur.

Steel manufacturing has occurred on the Site from 1882 to 1991. The Site has no value as a habitat for fish and wildlife as a result of this long history industrial use. The Site was in the tidal floodplain until the construction of Interstate 580 and 80 in 1954.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
2. **AIR** Will the project result in:			
a. Substantial air emissions or deterioration of ambient air quality?	___	___	X
b. The creation of objectionable odors?	___	___	X
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	___	___	X
d. Degradation of any air resources which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that air?	___	___	X

Explanation: No significant impacts to air are anticipated from the proposed project. Some dust and vapor may be generated during excavation, backfilling, and grading activities. Measures will be taken to minimize the amount of dust generated, such as spraying of water or using a dust suppressant. Monitoring of emissions will be performed by the remediation contractor to ensure compliance with lead and dust emission limits established by the Bay Area Air Quality Management District (BAAQMD). BAAQMD

Regulation 6 limits the quantity of particulate matter by placing limitations on emission rates, concentration, visible emissions, and opacity. Regulation 11, Rule 1, prohibits any emission of lead that will result in ground level concentrations in excess of 1.0 microgram per cubic meter ($\mu g/m^3$) averaged over 24 hours, or 1.0 $\mu g/m^3$ above background concentration averaged over 30 days.

No degradation of air resources which could impact plants and animals will occur in connection with the project. The generation of dust and vapors will be controlled to minimize emissions. Potential plant and animal receptors do not exist on the Site and are limited on the adjacent properties which have previously or are currently used for industrial or commercial purposes.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
3. **SURFACE AND GROUND WATER** Will the project result in:			
a. Changes in currents, or the course and direction of water movements, in either marine or fresh waters?	___	___	X
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	___	___	X
c. Alterations to the course or flow of flood waters?	___	___	X
d. Change in the amount of surface water in any water body?	___	___	X
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen or turbidity?	___	___	X
f. Alteration of the direction or rate of flow of ground waters?	___	___	X
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	___	___	X

h. Substantial reduction in the amount of water otherwise available for public water supplies?	___	___	X
i. Exposure of people or property to water-related hazards such as flooding or tidal waves?	___	___	X
j. Change to riparian land, rivers, streams, watercourses, and wetlands under state and federal jurisdiction?	___	___	X
k. Change to any water resources which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that water?	___	___	X

Explanation: No riparian land or wetlands occur on the Site. The nearest surface water is Temescal Creek which is approximately 900 north of the Site. Temescal Creek originates in the East Bay Hills and drains largely urbanized land into San Francisco Bay. The creek is lined with concrete. The Site was in the tidal floodplain until construction of Interstate 580 and 80 in 1954. The nearest wetlands are on the fringe of San Francisco Bay, which is located approximately 1/2 mile west of the Site. Therefore, no changes to riparian land, rivers, streams, watercourses, wetlands, and water resources will result from the project.

The shallow groundwater in the vicinity of the Site is not currently nor is it likely to be used as a water supply source. The concentration of total dissolved solids (TDS) measured during the Site Remedial Investigation in groundwater monitoring wells ranged from 530 to 9,500 milligrams per liter (mg/l). The measured TDS concentrations were highest toward the western part of the Site indicating that saltwater from San Francisco Bay mixes with freshwater beneath the Site. The high TDS concentrations (above 3,000 mg/l) would prevent the use of the upper and lower shallow groundwater zones as a drinking water source (Water Resources Control Board, Resolution 88-63).

The groundwater encountered during excavation will be pumped into the above ground tanks, treated, and appropriately disposed. The method of treatment will be determined in the remediation design phase of the project. Based on water levels observed in monitoring wells during the Site Remedial Investigation, it is anticipated that the depth of excavations may only be somewhat below the water table. Therefore, it is expected that the volume of water to be pumped from excavations will not be substantial.

Capping of the site is intended to prevent contact with contaminated soil to protect human health. The cap will also

limit infiltration of rain water into the shallow groundwater zone. However, the shallow zone is comprised of artificial fill material and is not a source of water supply.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
4. **PLANT LIFE** Will the project result in:			
a. Change in the diversity of species, or number of any species of plant (including trees, shrubs, grass, crops, and aquatic plants)?	___	___	X
b. Reduction of the numbers of any unique, rare or endangered species of plants?	___	___	X
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	___	___	X
d. Reduction in acreage of any agricultural crop?	___	___	X
e. Deterioration of existing plant habitat?	___	___	X
f. Any adverse effect to native and non-native plant life?	___	___	X
g. Effects to rare and unique plant life and ecological communities dependent on plant life?	___	___	X
h. Any adverse effect to listed threatened and endangered plants?	___	___	X
i. Effects on habitat in which listed threatened and endangered plants are believed to reside?	___	___	X
j. Effects on species of plants listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulations adopted thereunder?	___	___	X

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
k. Effects on marine and terrestrial plant species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside?	___	____	X

Explanation: This project does not involve, nor results in physical change to any plant life. The project site has no value as a plant habitat because of the site's historic use as a steel manufacturing facility. The project site area is covered with concrete, slag, and asphalt paving. Based on the Natural Diversity Data Base (September 28, 1995) provided by the Department of Fish and Game, no listed, threatened and endangered plants or plant habitat occur with the project area.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
5. **ANIMAL LIFE** Will the project result in:			
a. Change in the diversity of species, or number of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects) species of animals?	___	____	X
b. Reduction of the numbers of any unique, rare or endangered species of animals?	___	____	X
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	___	____	X
d. Deterioration to existing fish or wildlife habitat?	___	____	X
e. Effects on listed threatened or endangered animals?	___	____	X

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
f. Effects on habitat in which listed threatened and endangered animals are believed to reside?	___	___	X
g. Effects on species of animals listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulations adopted thereunder?	___	___	X
h. Effects on marine and terrestrial animal species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside?	___	___	X

Explanation: The project site located within a commercial and industrial area. The land is covered by concrete, slag, or asphalt pavement. No impacts to animals are expected in connection with the project. Based on the Natural Diversity Data Base (September 28, 1995) provided by the Department of Fish and Game, no listed, threatened and endangered animal species occur with the project area.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
6. **LAND USE** Will the project result in a substantial alteration of the present or planned land use of an area?	___	___	X

Explanation: The site is presently zoned for industrial/commercial uses. Contamination which currently exists on the Site limits the use of the property. The deed restrictions that will be put in place as part of the project will limit the Site use to industrial/commercial only, which is consistent with the current zoning and plans the City of Emeryville has for the area. Any alteration or removal of the cap which exposes Site soils will not be prohibited by the deed restrictions, but will require

notifying the Department to ensure that health and safety issues are properly considered.

	Substantial or potentially substantial adverse change.		
	Yes	Maybe	No
7. **NATURAL RESOURCES** Will the project result in an increase in the rate of use of any natural resources?	___	___	X

Explanation: This project does not involve or result in any adverse change to any natural resource. Instead, this project will increase present and future use of the site.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
8. **RISK OF UPSET** Will the project involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	___	___	X
b. Possible interference with an emergency response plan or an emergency evacuation plan?	___	___	X

Explanation: Polychlorinated biphenyls, lead, and petroleum hydrocarbons are the primary soil contaminants. The soil with these contaminants that will be excavated and handled will not have explosive properties. In the event of an accident, there is potential for release of contaminated soil during transport by truck on public roads to the off-site disposal facility. Additionally, contaminated water pumped from excavation areas will be transported by truck to a treatment/disposal facility. The levels of contaminants in soil and water that will be transported will not present an acute hazard since the hazardous material consists of relatively inert compounds in soil. If an accident were to occur, the release would be limited to the quantity of material in a truckload. Contaminated materials which meet hazardous waste criteria will be transported to the off-site treatment/disposal facilities in conformance with requirements under Title 22, Division 4.5, Chapter 12 of the California Code of Regulations.

A potential release of airborne dust may occur during excavation and grading at the site. However, measures will be taken to control the amount of dusts generated such as spraying water during excavation and grading to minimize the release of dust.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
9. **TRANSPORTATION/CIRCULATION** Will the project result in:			
a. Generation of substantial additional vehicular movement?	___	___	X
b. Effects on existing parking facilities, or demand for new parking?	___	___	X
c. Substantial impact upon existing transportation systems?	___	___	X
d. Alterations to present patterns of circulation or movement of people and/or goods?	___	___	X
e. Alterations to waterborne, rail or air traffic?	___	___	X
f Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	___	___	X

Explanation: Trucks transporting equipment and materials, including fill material for the construction of the proposed cap will add to the volume of traffic using existing roads near the site. The increase in truck traffic is expected to be intermittent and is not expected to be significant since the proposed excavations will be implemented over a period of three months. During the construction period, approximately 10 to 20 trucks per day may be traveling in and out of the site. All trucks related to the remedial activities at the site will be operating during daylight hours. The remedial activities will not require roads to be closed or traffic be diverted. The project site is in close proximity to the Interstate Highway 80.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
10. **PUBLIC SERVICES** Will the project have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	___	___	X
b. Police protection?	___	___	X
c. Schools?	___	___	X
d. Parks or their recreational facilities?	___	___	X
e. Maintenance of public facilities, including roads?	___	___	X
f. Other governmental services?	___	___	X

Explanation: No significant needs for or effects on government services have been identified for the proposed project.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
11. **ENERGY** Will the project result in:			
a. Use of substantial amounts of fuel or energy?	___	___	X
b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	___	___	X

Explanation: The proposed project will not have significant energy or fuel demands. A small amount of fuel will be expended during the implementation of the proposed remedial actions. Consumption of diesel fuels should be minimal because the heavy machinery will be operated intermittently during the period of construction.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
12. **UTILITIES** Will the project result in a need for new systems, or substantial alterations to any utilities	___	___	X

Explanation: No permanent installation of utilities is planned or required to complete the project.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
13. **NOISE** Will the project result in:			
a. Increases in the noise level?	___	___	X
b. Exposure of people to severe noise levels?	___	___	X

Explanation: Operation of heavy equipment such as backhoes, dump trucks, etc., will cause an increase in noise levels during the construction phase of the project however, the specific decibel level is not available at this time. The nearest off-site noise receptor is at least 500 feet from the site. All construction activities will conform to General Plan noise policies regarding proper timing of construction activities. The local noise ordinance for an industrial area is 75 decibels (dBA, a weighted scale) and for a residential area is 55 dBA. If sound level monitoring detects noise levels exceeding those allowed by the local noise ordinance, mitigation measures such as lowering the noise level of the equipment or limiting the construction hours will be taken. All construction personnel will wear hearing protection equipment to reduce exposure where appropriate.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
14. **PUBLIC HEALTH & SAFETY** Will the project result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	___	___	X
b. Exposure of people to potential health hazards?	___	___	X

Explanation: Public health and safety was considered during the evaluation of the remedial alternatives and no significant impacts were identified. This evaluation is documented in the Public Health and Environmental Evaluation Report (EMCON, January 1994). Preparation of a health and safety plan (HSP) for remediation construction workers is required prior to implementation of the proposed project because on-site construction workers may be exposed to or come in contact with contaminated soil. The HSP shall be developed in accordance with Section 5192, Title 8, California Code of Regulations (CCR). The project will be carried out by personnel trained in accordance with state and federal standards for hazardous waste site workers.

Dust control such as spraying water prior to any excavation and grading at the site will be performed and will reduce the potential for off-site migration of contaminated dust during the remedial activities. Personnel and work-area air monitoring will be conducted to monitor the levels of contaminated dusts generated during the construction activities.

Personnel air monitoring will be conducted to ensure that the workers implementing the remedial action at the Site will be protected from the adverse levels of impacted dust. Air monitoring will follow the Department approved Health and Safety Plan which will be prepared in accordance with Section 5192, Title 8, California Code of Regulations and 1910.120, Code of Federal Regulations.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
15. **AESTHETICS** Will the project result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view? Will the proposal new light glare?	___	___	X

Explanation: The site is currently vacant and is private property not open to access by the public. After completion of the soil excavation, the site will be capped, which will not significantly alter the appearance of the Site.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
16. **CULTURAL/PALEONTOLOGICAL**			
a. Will the project result in the alteration of or the destruction of a prehistoric or historic archaeological site?	___	___	X
b. Will the project result in adverse physical or aesthetic effects to a prehistoric or historic building or structure or object?	___	___	X
c. Does the project have the potential to cause a physical change which would affect unique ethnic cultural values?	___	___	X

Explanation: The site is former location of a steel manufacturing facility that began operations in 1882. The Site has been highly disturbed by past steel manufacturing activities. In the unlikely event that presently unknown buried cultural resources are encountered during excavation, work will be halted and a qualified archeologist notified.

	Substantial or potentially substantial adverse change		
	Yes	Maybe	No
17. **CUMULATIVE EFFECTS** Will the project result in air or water contamination which by themselves are not significant, but when considered in light of other local sources, may be cumulatively significant?	___	___	X

Explanation: The proposed remedial actions will not have a cumulative effects on the project site. The project has been planned to protect the public health by removing the contaminated soil and capping the site. The project has a beneficial effect for human health and the environment. The length of the project is relatively short and will not have a cumulative effect with other projects in the area.

	Yes	No
SUMMARY OF FINDINGS Based on study findings as explained here in, justification is made for the following conclusions:		
a. Does the project have the potential to degrade the quality of the environment, substantially reduce habitat of a fish or wildlife species, cause a fish or wildlife species to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	___	X
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals?	___	X
c. Does the project have impacts which are individually limited, but cumulatively considerable?	___	X
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	___	X
e. Do the activities of this project have an influence on recreation, aesthetics, noise, cultural resources, or any other environmental issues which have not been included in this checklist?	___	X

Determination of De Minimis	Yes	No
On the basis of this initial evaluation:		
I find that there is no evidence before the Department that the proposed project will have potential for an adverse effect on wildlife resources or the habitat upon which the wildlife depends, a NEGATIVE DECLARATION with a FINDING OF DE MINIMIS will be prepared.	X	___

DETERMINATION OF SIGNIFICANT EFFECT check one

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and **a NEGATIVE DECLARATION will be prepared.** X

The project has been revised to incorporate special changes which assure that there will be no reasonable possibility of significant environmental effects, and **a NEGATIVE DECLARATION will be prepared.** ___

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet will be added to the project and listed in the Negative Declaration. **A MITIGATED NEGATIVE DECLARATION will be prepared.** Before the Negative Declaration is approved, the Department of Toxic Substances Control will develop a monitoring program to insure the implementation of these mitigation measures by this agency. All responsible agencies should develop monitoring programs for mitigation measures which are identified under their discretionary authority. ___

I find that the proposed project MAY have a significant effect on the environment, an ENVIRONMENTAL IMPACT REPORT shall be prepared to determine if significant effects would result. ___

Signature _____ Date 3/14/96
Project Manager

Signature _____ Date 3/11/96
Unit Chief

Signature Barbara J Cook Date 3/14/96
Branch Chief

SJ\I\PJ0G\MAS01019.DOC

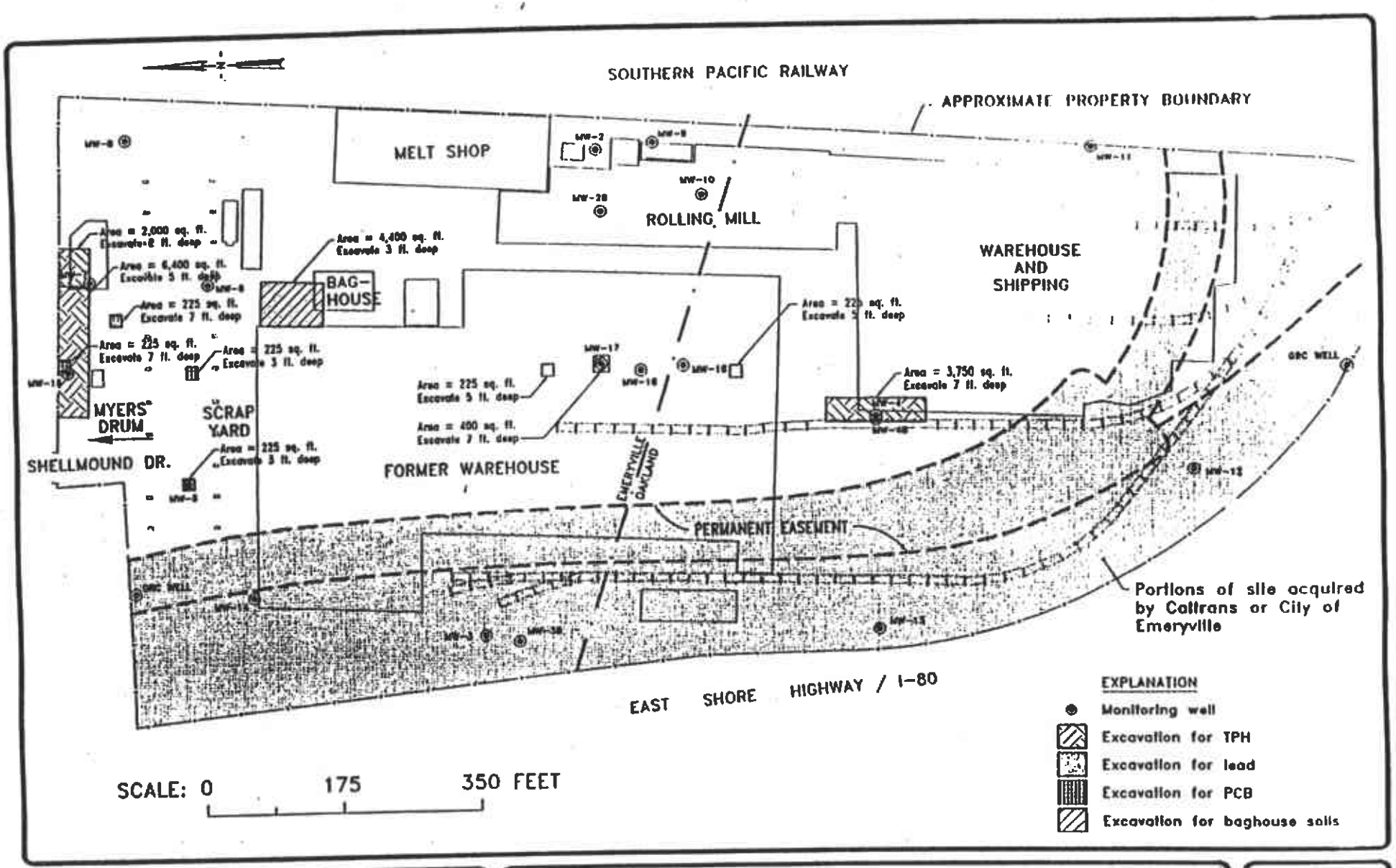
152753

EMCON

BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, CALIFORNIA

SITE LOCATION

FIGURE
1
PROJECT NO.
G01-01.11



EMCON

BARBARY COAST STEEL CORPORATION
4300 EAST SHORE HIGHWAY
EMERYVILLE, CALIFORNIA

SITE PLAN WITH EVALUATED EXCAVATION AREAS

FIGURE 2

PROJECT NO. G01-01.11

APPENDIX G

FACT SHEET AND NEWSPAPER AD

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Barbary Coast Steel Site

Emeryville, California

Fact Sheet #1 March 1996

INTRODUCTION

The **Department of Toxic Substances Control (DTSC)**[1] has prepared this Fact Sheet which provides information about the proposed cleanup of the former Barbary Coast Steel steel plant site. This fact sheet includes a short history of the Site, including investigation of the soil and groundwater conditions. Opportunities for public involvement are outlined on page 6. The Site covers approximately 14½ acres and straddles the border between Emeryville and Oakland (see Figure 1).

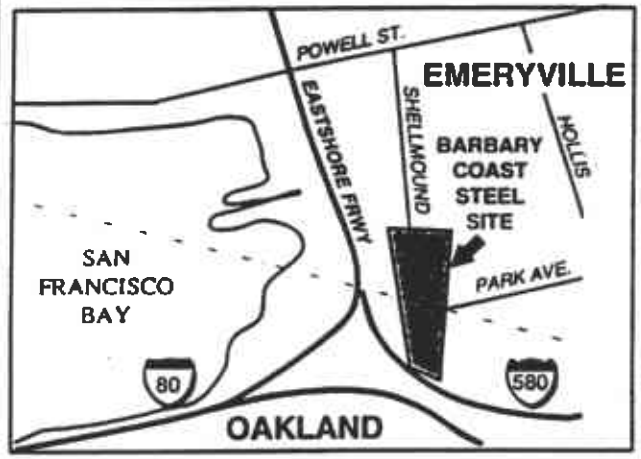


Figure 1

Barbary Coast Steel, as owner, is the party responsible for the cleanup of the Site, with oversight from the DTSC as the lead agency. The Regional Water Quality Control Board (RWQCB), Alameda County Water District (ACWD), and the City of Emeryville are commenting agencies.

Beginning in 1993, Barbary Coast Steel began to characterize the soil and groundwater conditions at the Site. The following reports describe the conditions at the Site and are described on the following pages: **Remedial Investigation, Public Health and Environmental Evaluation, Feasibility Study, and Draft Remedial Action Plan (RAP).** These reports are available for public review at the information repositories noted on page 6. The Draft RAP, prepared in accordance with the Consent Order entered into on March 22, 1993 between Barbary Coast Steel and the DTSC, is available for public review and comment.

The Draft RAP summarizes the history and investigations of the Site and the studies noted above. The Draft RAP also presents an evaluation of the various remedial alternatives considered in the Feasibility Study, as well as discussions of the recommended alternative to remediate the Site.

In addition to the Draft RAP, DTSC proposes to support its decision for the remediation project with a finding of no significant impact in the **Negative Declaration** which was prepared in compliance with the requirements of the **California Environmental Quality Act (CEQA).**

Draft Remedial Action Plan Public Meeting
7 p.m.
April 2, 1996
Holiday Inn, Silver Room
1800 Powell Street
Emeryville, California

Public Comment Period
Written comments will be received by the State of California Environmental Protection Agency Department of Toxic Substances Control from March 18, 1996 to April 17, 1996.

Send comments to:
CAL/EPA DTSC
Attn: Ted Park
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2737

[1] *Words in bold print are defined in the Glossary of Terms section at the end of this fact sheet.*

DTSC's Draft RAP for the Site is a preliminary decision only. You are encouraged to read this Fact Sheet, to review project documents that are now available in the local information repositories, and submit your comments to DTSC. DTSC will consider all comments received during the comment period. DTSC will accept written comments on the draft RAP from March 18 to April 17, 1996. You should send those comments to Ted Park, the DTSC Project Coordinator at the address shown on page 1. Additionally, DTSC will hold a public meeting to answer questions and take oral comments.

DTSC will make its final decision on the RAP for the Site after public comments have been considered and responses to these comments have been made.

DESCRIPTION AND SITE HISTORY

The Barbary Coast Steel facility is a former steel manufacturing plant at 4300 Eastshore Highway, Emeryville, California. The 14½-acre Site is currently bordered by an industrial site to the north and Southern Pacific Railroad to the east. Interstate Highways 580 and 80 border the Site to the south and west. The closest residential areas are more that 1,500 feet southeast of the Site. There is a shopping center approximately 1,000 feet north of the Site.

Barbary Coast Steel has owned the Site since 1987, when it was acquired from Judson Steel Corporation (Judson), the previous owner. Judson manufactured steel from scrap iron from approximately 1882 until 1987. From 1987 until 1991, Barbary Coast Steel manufactured steel reinforcing bars (rebar) from scrap iron. In 1991, Barbary Coast Steel ceased operations at the Site and began removing the machinery and demolishing the buildings. All of the structures have been dismantled, except for existing concrete slabs and paved areas.

Originally, Barbary Coast Steel acquired approximately 23½ acres from Judson in 1987. The State of California Department of Transportation (Caltrans) acquired a portion of the Site to widen Interstate Highway 80 and the City of Emeryville acquired a portion of the Site to extend Shellmound Avenue southward.

REMEDIAL INVESTIGATIONS

Numerous **remedial investigations** were conducted at the Site by various consultants between February 1987 and August 1995 to determine the nature and extent of the chemical compounds in the soil and groundwater. More than 300 soil samples and 50 groundwater samples have been collected from soil borings and groundwater monitoring wells and analyzed for chemical compounds.

The results of chemical analyses indicate that, in several areas, the Site soils are contaminated with elevated levels of **lead**, petroleum hydrocarbons, and **polychlorinated biphenyls (PCBs)**. Very low concentrations of the above chemicals are also detected in the shallow groundwater.

Details of the investigations are discussed in the Remedial Investigation Report and various other reports which are located in the information repository.

HEALTH RISK ASSESSMENT

The **Public Health and Environmental Evaluation** evaluated the potential risk to public health and the environment posed by existing Site conditions before any development or remediation. The risk evaluations also considered the future land use of the Site (commercial development, such as a shopping mall) and determined cleanup levels for the chemicals and lead found in Site soils.

Other compounds found at the Site were detected infrequently or at low concentrations and do not require remediation. The risk evaluations concluded that groundwater at the Site does not present any significant risk to the public or the environment.

INTERIM REMEDIAL MEASURES

Since acquiring the Site in 1987, Barbary Coast Steel has performed the following **interim remedial measures** to reduce the potential for environmental impacts:

- Decontaminated and removed all equipment from the Site.
- Removed underground storage tanks and demolished all of the buildings and above ground structures.
- Allowed existing concrete slabs and paved areas that cover a significant portion (over 11 acres) of the Site to remain in place.
- Backfilled scale pits, which were used during the operations to store cooling water, and covered them with concrete.
- Removed wastes by scraping the upper 2 feet of soil from the scrap yard and disposed the wastes at an appropriate disposal facility.
- Remediated a spill of transformer oil that occurred in 1994.

FEASIBILITY STUDY

Based on the results of the studies discussed above, Barbary Coast Steel estimated the amount of material that requires remediation and prepared a Feasibility Study to identify appropriate cleanup methods for the remediation on the Site. The study evaluated seven remedial alternatives. The next sections describe the preferred alternative, followed by brief descriptions of the rejected alternatives.

DRAFT REMEDIAL ACTION PLAN

The Draft RAP presents the objectives for the Site remediation, identifies the preferred alternative, and gives the reasons that the other alternatives were rejected. The paragraphs below summarize the conclusions contained in the Draft RAP.

REMEDIAL GOALS AND OBJECTIVES

The remediation goals for the Barbary Coast Steel Site are as follows:

- Protect the health and safety of the public and construction workers during remediation activities.
- Eliminate exposure to the public and future users of the Site, or reduce potential exposure to levels considered safe.
- Protect groundwater.

PROPOSED REMEDIAL ALTERNATIVE

The proposed remedial alternative (labeled as Alternative D3 in the Draft RAP) for the Site is estimated to cost approximately $3 million and includes the following elements:

Excavation of soil exceeding established cleanup levels

- PCB-impacted soil (100 cubic yards)
- Petroleum hydrocarbon-impacted soil (2,300 cy)
- Lead-impacted soil (200 cy)
- Soils around the former baghouse (500 cy)
- Verification sampling to confirm that soils which exceed the cleanup levels have been removed

Barbary Coast Steel would dispose of the 3,100 cubic yards of contamination at a permitted land dis-

posal facility. For perspective, this amount of soil would fill 155 trucks (20 tons per truck).

Other remediation activities

- Cap the Site to allow development of the property.
- Perform groundwater removal during excavation of impacted soils.
- Perform dust control measures during work on Site to protect construction workers.
- Perform quarterly groundwater monitoring with periodic 5-year reviews.
- Place deed restrictions on the property so that the property can be developed for commercial or industrial use only.
- Properly decommission the on-site water supply well.
- Recycle or remove piles of slag.

REJECTED ALTERNATIVES

The feasibility study considered a number of alternatives for remediating the Site. The alternatives evaluated included a "no action" option as required by State and Federal guidelines. This alternative is required to be considered as a baseline against which all other remedial actions can be compared.

These alternatives were rejected for the reasons listed:

- Alternative A - No action for soil; monitoring only for groundwater. Estimated cost: $216,000.

Under this alternative, no action would be taken to remediate the Site, but there would be a continuing requirement for groundwater monitoring. This alternative was rejected since the potential health risks would not be reduced and the compliance with regulations would not be achieved.

- Alternative B - Capping the Site; groundwater monitoring. Estimated cost: $1.5 million.
- Alternative C - Baghouse area soil removal with off-site disposal, plus capping the Site; groundwater monitoring. Estimated cost: $2 million.
- Alternative D1 - PCB and baghouse soil removal with off-site disposal, plus capping the Site; groundwater monitoring. Estimated cost: $2.1 million.
- Alternative D2 - PCB, lead, and baghouse area soil removal, with off-site disposal, plus capping the Site; groundwater monitoring. Estimated cost: $2.2 million.

Alternatives B, C, D1, and D2 were rejected because some contaminants above established cleanup levels would remain in place.

- Alternative E - PCB, lead, and baghouse area soil removal, with off-site disposal, on-site treatment and backfilling of excavated soil containing petroleum hydrocarbons, plus capping the Site; groundwater monitoring. Estimated cost: $2.8 million.

Alternative E was rejected because bioremediation is not expected to be effective and would take several years to implement. Additionally, bioremediation would generate significant dust and increase the potential for adverse health affects.

GLOSSARY OF TERMS

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)
The lead regulatory agency responsible for the investigation and cleanup of the Site.

California Environmental Quality Control Act (CEQA)
The principal law requiring environmental impact review of governmental action in California. The act applies generally to all activities undertaken by State and local agencies.

Capping
Part of the recommended remedial alternative for the Site that would prevent contact with soils remaining at the Site. The cap would cover the Site and consist of buildings, parking lots, pavement, and roadways.

Feasibility Study
A study prepared to identify and evaluate a range of potential alternatives for remediating a site.

Groundwater
Water beneath the ground surface which occurs in spaces between individual grains of soil. Groundwater moves through the spaces between grains, usually at slow rates.

Interim Remedial Measures
Cleanup actions taken to protect public health or the environment while long-term solutions are being developed.

Lead
A heavy metal of a dull grayish color that is present in small amounts everywhere in the human environment. Lead is listed as a reproductive toxic substance under Proposition 65.

Monitoring Well
A well specifically installed for the purpose of sampling groundwater.

Negative Declaration
A document issued by the regulatory agency when an initial environmental study indicates no substantial evidence that the proposed project will have a significant effect on the environment.

Polychlorinated biphenyls (PCBs)
A group of toxic chemicals used in a variety of purposes including electrical applications, carbonless copy paper, adhesives, hydraulic fluids, microscope emersion oils, and caulking compounds. PCBs do not breakdown easily and are listed as cancer causing agents under Proposition 65.

Public Health Environmental Evaluation
An assessment of current and future potential health risks of environmental impacts associated with the Site. The study identifies the type and concentrations of hazardous substances involved; determines potential routes of exposure and the likelihood that humans would be exposed to those hazardous substances; compiles information on the non-cancer, cancer, and other adverse health effect of the hazardous substances; and evaluates the levels at which the potential health risk would not be significant. The study is use to establish the cleanup levels for the Site.

Site
The 14½ -acre site of the former steel plant of Barbary Coast Steel in Emeryville, California.

Remedial Action Plan
A plan, approved by the DTSC, that outlines a specific program leading to the remediation of a contaminated site. Once the Draft RAP is prepared, a public meeting is held and comments from the public are solicited for a period of no less than 30 days. After the public comment period has ended, DTSC approves the final remedy for the Site (Final RAP) and responds in writing to comments received.

Remedial Investigation
A series of investigations and studies to identify the types and extent of chemicals at a Site. The remedial investigation generally includes collecting and analyzing soil and groundwater samples.

FOR MORE INFORMATION

Copies of the Draft RAP and other Site-related documents are available at the following repositories:

Oakland Public Library - Golden Gate Branch
5606 San Pablo Avenue
Oakland, California 94608
Ph. (510) 597-5023
Hours: Sun/Mon - closed
Tues - 11:30 a.m. to 7 p.m.
Wed., Th., and Sat. - 10 a.m. to 5:30 p.m.
Fri. - 12 p.m. to 5:30 p.m.

California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Ave., Suite 200
Berkeley, California 94710-2737
Ph. (510) 540-3800
Hours: Mon. thru Fri. - 8 a.m. to 5 p.m.

PUBLIC PARTICIPATION

DTSC encourages your participation in this process. Your interest and involvement will help to ensure a thorough review of the information gathered and the alternatives to be considered. It is important that community members understand that decisions made by DTSC will be based, in part, on public comments received throughout the Site investigation and remediation process. DTSC will balance community concerns with the information developed as a result of the Site investigation and remediation process.

CONTACT PERSON

The DTSC encourages the exchange of information with interested members of the public. If you wish to comment on the Draft RAP during the public comment period, or if you would like more information or have questions, please write or call:

California Environmental Protection Agency
Department of Toxic Substances Control
Attn: Ted Park
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Ted Park
Project Manager
(510) 540-3847

Carol Northrup
Public Participation Coordinator
(510) 540-3928

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL
COMMENT PERIOD AND PUBLIC MEETING NOTICE
BARBARY COAST STEEL
4300 EASTSHORE HIGHWAY
EMERYVILLE, CALIFORNIA

Barbary Coast Steel, in conjunction with other responsible parties, and with the cooperation and oversight of the California Department of Toxic Substances Control (DTSC), has been investigating the soil and groundwater conditions at the former steel manufacturing plant located at 4300 Eastshore Highway, Emeryville, California (Site). Results of investigations have been incorporated into a Draft Remedial Action Plan which outlines the preferred method of managing contamination found in subsurface soils and groundwater at the Site.

After completing a Remedial Investigation, Risk Assessment and Feasibility Study, Barbary Coast Steel proposes to excavate contaminated soils from limited areas and dispose of them off-site. The Site will be capped after completion of the excavation activities, and the groundwater will be monitored. These measures will render the Site suitable for commercial development and protect human health and the environment. DTSC has determined that these activities will not have significant, adverse environmental impacts. Pursuant to the California Environmental Quality Act of 1970, DTSC is proposing a "Negative Declaration" for the remedial activities recommended in the Draft Remedial Action Plan.

A public meeting will be held to accept public comment and to provide information about the Draft Remedial Action Plan and the Negative Declaration. DTSC representatives will be present at the meeting to discuss these documents, answer questions, and receive comments from the public.

Interested individuals are encouraged to attend:

April 2, 1996
7 p.m.
Holiday Inn, Silver Room
1800 Powell Street
Emeryville, California

Interested individuals may submit written comments by April 17, 1996 to the DTSC. Send written comments to:

Department of Toxic Substances Control
Attn: Mr. Ted Park
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2737
(510) 540-3847

PUBLIC MEETING INFORMATION

California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737
Attn: Carol Northrup

ATTENTION!!!
Public Meeting concerning
Barbary Coast Steel Site
Draft Remedial Action Plan
April 2, 1996, 7 p.m.
Holiday Inn, Silver Room
1800 Powell Street
Emeryville, California

The Oakland Tribune.

66 Jack London Square, Oakland, CA 94607
(510) 208-6300

LEGAL NO. 5133

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PROOF OF PUBLICATION

Case No. .....

In the matter of

Emcon

California Department of Toxic Substa:

Control

Barbary Coast Steel, Emeryville, CA.

.....

Samantha Allen ..... deposes and says that he/she was the Public Notice Advertising Clerk of THE OAKLAND TRIBUNE a newspaper of general circulation as defined by Government Code Section 6000, adjudicated as such by the Superior Court of the State of California, County of Alameda (Order No. 237798, December 4, 1951) which is published and circulated in Oakland Township in said county and state seven days a week.

That the .....

Notice of Public Comment Period

and Public Meeting

of which the annexed is a printed copy, was published in every issue of THE OAKLAND TRIBUNE on the following dates:

.....

March 18, 1996

.....

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Date ..... March 18 1996 .....
at Oakland, California.

Samantha Allen

Public Notice Advertising Clerk