



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

Alameda County

OCT 28 2004

REC'D - [unclear]

MEMORANDUM

DATE: December 23, 1998

SUBJECT: Documentation of OSC Initiation of a Removal Action under Warrant Authority and Request for additional funding for a Removal Action at Francis Plating on 7th Street in Oakland, California

FROM: Kathryn Lawrence, OSC, Office of Emergency Response

TO: Keith A. Takata, Division Director
Hazardous Waste Management Division

THRU: Terry Brubaker, Section Chief
Office of Emergency Response

I. PURPOSE

The purpose of this Action Memo is to document OSC initiation of a removal action and to request and document approval of the proposed removal action described herein for the Francis Plating Site in Oakland, California.

Conditions presently exist at the Site which, if not addressed by implementing the response action documented in this Action Memorandum, may lead to off-site migration and release of contaminants which may pose an imminent and substantial endangerment to the public health or welfare or the environment.

II. SITE CONDITIONS AND BACKGROUND

Site Status: Non-NPL
Category of Removal: Time-Critical
SITE ID: 6Q

A. Site Description

1. Physical Location

Francis Plating ("the site") is located at 785 7th Street in Oakland California. It is bounded on the south by Brush Street, to the east by 7th Street, and to the north and west by commercial properties. The surrounding area is a mixed residential, commercial and light industrial area, with the

nearest residence located approximately one block away from the site. No schools have been identified in the immediate area.

The facility is located at a very busy intersection just to the north and west of Downtown Oakland. The Interstate 980 and 880 interchange is immediately to the south-west of the site and a B.A.R.T. line is located one block to the west. The site is also within a mile of the San Francisco Bay to which area storm sewers drain. A map of the site location is provided as attachment 1.

2. Site Characteristics

The Francis Plating site consists of one building that contains the plating operations, two storage yards and two office trailers. According to site records, a plating operation has operated at the site since 1957 and specialized in nickel plating, cadmium plating, aluminum anodizing, and chromic acid passivation. In 1992, a portion of the facility was badly damaged in a fire and was subsequently raised and the plating operations were apparently consolidated in the single plating room on the site. The former plating area of the burned building was then converted to a storage area that also housed waste water treatment operations.

The facility is currently not operating, having been closed in bankruptcy proceedings in August, 1998. Since that time, the court appointed bankruptcy trustee has been in the process of evaluating site assets for creditor reimbursements. According to this trustee and a former employee the site has a recent history of poor security and evidence of break in and theft of site property.

Large volumes of plating related hazardous materials exist at the facility including metal cyanide plating solutions, strong acids, caustics, paints, solvents, laboratory chemicals and metal salts. There are also a large number of drums and small containers at the site, many of which appear to be leaking or in a deteriorated state. The plating room and storage yards are described in more detail below and descriptive maps are provided as Attachment 2a-d. Photographs are provided as Attachment 3. Please Note that this map represents conditions as they were understood by the responders on December 23, 1998. Analytical and other information may affect some of the specific operations and constituent notations.

A preliminary inventory of the containers with potentially hazardous substances, pollutants, and contaminants at the site produced the following list:

- approximately 240 fifty-five and thirty gallon drums
- several hundred small containers
- approximately 44 vats in plating room
- approximately 9 large poly containers in the front yard
- approximately 5 tanks & poly in rear yard

The Plating Room

As indicated in the facility maps, the plating room contains approximately 44 vats. Materials in these vats include strong acids such as nitric and sulfuric, electroless plating solutions, cadmium and silver cyanide plating solutions, caustics, rinsewaters, and finishing baths. A portion of the plating line is located within a large ~~confinement~~ vault that is approximately 77 feet in length, 25 feet in width, and according to a former employee, 10 feet deep at one end and 6 ft. deep at the other. Initial investigations of the vault indicate that it is partially full of sludge and liquid with approximately 3 ft. of free board. The material has a pH of 4-5 and is thick enough to preclude probe investigation and confirmation of the vault depth. These sludges and liquids surround and engulf many of the large plating tanks thereby prohibiting inspection of the exterior condition of the tanks. Total plating tank volume is currently estimated to be approximately 35,000 gallons. The capacity of the vault if it were empty and exclusive of tank displacement is estimated to be approximately 112,000 gallons.

The Storage Yards

A large variety of miscellaneous equipment and debris as well as drums, tanks and other containers are present in both the rear and front storage yards. The rear yard also contains three large intermodal containers stacked on the western edge of the facility. These were identified as containing a mixture of equipment, office materials, and chemicals. The rear yard also houses a two large poly tanks, an approximately 4000 gallon stainless steel tank described as containing nitric acid, an approximately 1500 gallon tank described as having contained hydrofluoric acid, and a variety of 55 gallon drums many of which have no external contents markings. The front yard houses what facility maps and a former employee designate as the wastewater treatment area. This facility consists of a holding pond (also known as the frog pond), three large poly tanks that are fairly full of sludges, and a filter press that is currently disconnected. The yard also houses several additional poly tanks described as containing ~~zinc cyanide~~ and chromic acid, a variety of drums and small containers as well as office equipment and miscellaneous plating equipment. Both yards are exposed to rainfall and exhibit stained concrete and spilled materials from deteriorating drums and containers.

3. Removal site evaluation

Due to the large volume of hazardous materials, lack of facility management, and potential for releases, the City of Oakland Fire Department requested that EPA Region 9 evaluate the facility. At the time of the evaluation, the plating lines at the facility were no longer functional and the facility had been reportedly closed at the beginning of August. The large volume of

plating related solutions that remain on-site, the presence of spilled solutions on the floor, and the apparent deteriorated condition of numerous vats and containers present a significant release potential. If unabated, these release potentials could endanger near-by human and environmental populations.

On December 15, the OSC received reports of site security problems as well as accounts of contaminated storm water release potential. The removal action was therefore initiated under OSC warrant authority on December 16 in order to establish site security and initiate the stabilization of the facility.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

As discussed above, a large volume of plating related materials were observed at the site. The observed release of hazardous materials, deteriorating containers and berms, and large volume of hazardous substances represent a significant threat to nearby populations.

5. NPL status

This facility is not on the NPL. HRS ranking is not anticipated at this time.

6. Maps, pictures and other graphic representations

Facility layouts are provided as Attachments 1 & 2.

B. Other Actions to Date

In 1992 EPA Region 9 responded to a fire at the Francis Plating Facility. The current response action is being undertaken independent of that activity.

C. State and Local Authorities's Roles

1. State and local actions to date

The City of Oakland Fire Department and California EPA/DTSC have conducted inspections of the facility since its closure. The results of those inspection as well as information from bankruptcy proceedings led to the Fire Department's referral of the facility to EPA.

2. Potential for continued State/local response

Neither state nor local responders have the resources to undertake a clean-up action at this time. Oakland Fire Department and DTSC officials will participate in the response by offering local support and coordination.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health, or Welfare or the Environment

The substances of concern are strong acids and oxidizing acids and numerous heavy metal salts, including cyanide. Review of state and local records and on-site observations indicate the presence of hazardous substances, including but not limited to the following:

1. Nitric acid - This is a corrosive material which can burn the skin, eyes and respiratory tract upon direct contact or inhalation of vapors. It can cause acute pulmonary edema or chronic pulmonary diseases from inhalation. When heated or reacted with water, it produces toxic and corrosive fumes.
2. Chromic acid - This is corrosive to metals and tissue. It can react with combustible materials and the heat of reaction may be sufficient to result in ignition of the combustible materials. A fire may produce irritating or poisonous gases.
3. Caustic Soda - Caustic soda is a strongly alkaline material. It is an alkaline corrosive and has an irritating effect on all body tissue, causing burns and deep ulcerations. Inhalation can cause damage to the upper respiratory tissue and lung tissue, with effects ranging from mucous membrane irritation to severe pneumonitis.
4. Cyanide - Cyanide is readily absorbed through the skin, mucous membrane and by inhalation. Symptoms of cyanide poisoning include anxiety, confusion, vertigo, nausea, convulsions, paralysis, coma, cardiac arrhythmia, and transient respiratory stimulation followed by respiratory failure. Cyanide salts can also produce HCN upon contact with acid. This gas is both flammable and toxic.

1. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain

Receptors for the Site include nearby work and residential populations. Exposure via inhalation could be introduced to extra-facility populations on the occasion of a facility fire or the mix of incompatible chemicals. Contaminated storm water run-off from the facility could also provide a contact pathway.

2. Actual or potential contamination of drinking water supplies

None identified to date. Although contamination of surface water and subsequent run-off is a possibility as is infiltration of contamination into groundwater aquifers.

3. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

Large volumes of plating solutions, chemicals, and rinsates were observed on site in vats, drums and other containers. Several containers were observed to have limited freeboard and showed signs of deterioration.

4. High levels of hazardous substances or pollutants or contaminants in soils at or near the surface, that may migrate

None identified to date. However, such contamination may be present because of the deteriorated condition of concrete in the plating room and in the storage yards. Exposed soil also exists on site adjacent to the front yard storage area. Soil contamination will be evaluated within the scope of this action.

5. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

Winter rains may contribute to the migration of contamination from the storage yard and from any soil contamination if it exists. Storm water releases from the site have been observed in the past according to former employees.

6. Threat of fire or explosion

Mix of incompatible chemicals such as acids and bases or cyanide could provide sufficient energy to cause a fire at the facility. Such mixing could occur upon continued deterioration and leak of plating vats and could be exacerbated by weather. Air emissions from a fire event could endanger surrounding residences as well as commuter traffic on the 880 and 980 Interstates and the B.A.R.T. lines. In addition exposed electrical wiring was observed at the facility. Such wiring exposure could introduce a fire and spark hazard in the event of an unsecured power source and wire contact.

7. Availability of other appropriate Federal or State response mechanisms to respond to the release

The total estimated cost of this removal action is greater than could be funded through State Emergency Reserve Account (ERA).

B. Threats to the Environment

The identified areas of contamination present an immediate threat. Storm sewers are present adjacent to the facility. Discharge of hazardous materials could occur in the event of heavy rainfall. These storm sewers reportedly discharge to the Bay. Specific wildlife which may be impacted have not yet been identified.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

The overall objective of the removal action will be to identify all situations which pose imminent and substantial endangerments to the public and the environment, and mitigate them in a cost effective manner in accordance with NCP criteria.

1. Proposed action description

The removal action will be conducted in two initial phases. Phase I will involve securing the site, conducting a thorough assessment, and stabilizing hazards via bulking, containerizing, segregating, or by any other means deemed necessary. The major tasks anticipated in the Phase I response include:

- a. Provide site security;
- b. Sample and characterize all containerized materials and empty and/or stabilize leaking containers;
- c. Perform air monitoring and sampling, especially when there is a potential for airborne releases of toxic air contaminants. Operational controls such as dust containment and/or suppression will be used to abate fugitive dust emissions;
- d. Remove or stockpile non-hazardous equipment and debris to provide adequate space for response operations;
- e. Stabilize site by bulking, containerizing, or segregating hazardous materials as needed; and
- f. Stage equipment and pumps to manage stormwater.

The major tasks anticipated in a Phase II response include the following:

- a. Prepare all hazardous substances for proper transportation for disposal, or where feasible, alternative treatment or reuse/recycle options. The above may include bulking of compatibles, direct shipment for reuse, recontainerization of materials into DOT specification containers, lab packing small quantities, solidification of liquid wastes, and neutralization or other on-site treatment of wastes;

b. Remove grossly contaminated equipment, structures, debris, and surface soils for proper disposal. An attempt will be made to decontaminate structures to non-hazardous levels and minimize the volume of hazardous wastes; and

c. Evaluate subsurface contamination.

2. Contribution to remedial performance

The long-term cleanup plan for the site:

Long term remedial actions at this site are not anticipated at this time.

Threats that will require attention prior to the start of a long-term cleanup:

The immediate threats that have been identified in the Action Memo will be addressed by the proposed removal action.

The extent to which the removal will go to ensure that threats are adequately abated:

The removal action will accomplish the removal of all identified hazardous waste, all plating related chemicals, and all contaminated or potentially contaminated equipment.

Consistency with the long-term remedy:

Not applicable at this time.

3. Description of alternative technologies

Alternative technologies have not been considered.

4. Applicable or relevant and appropriate requirements (ARARs)

Section 300.415(j) of the NCP provides that removal actions must attain ARARs to the extent practicable, considering the exigencies of the situation.

Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under Federal environmental or State environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location,

or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular site.

Because CERCLA on-site response actions do not require permitting, only substantive requirements are considered as possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance of permits, documentation, reporting, record keeping, and enforcement are not ARARs for the CERCLA actions confined to the site.

Only those State standards that are identified by a State in a timely manner and are more stringent than Federal requirements may be applicable or relevant and appropriate. The State has not identified State ARARs at this time.

The following ARARs have been identified for the proposed response action. All can be attained.

Federal ARARs: The Clean Water Act (40 CFR Part 403) requirements for direct discharges to a POTW; the Resource Conservation and Recovery Act (RCRA) Subtitle C, 42 USC 6921 et seq. and its implementy reuraltions, RCRA Land Disposal Restrictions (LDRs) 40 CFR 268.40 Subpart D implemented through Title 22 Section 66268.40; the CERCLA Off-Site Disposal Rule Oswer Directive 9347.3-8FS; and the U.S. Department of Transportation of Hazardous Materials Regulations 49 CFR Part 171, 172 and 173.

State ARARs: Potential State ARARs are CA Health & Safety Code, Div. 20, Chap 6.5, Sec. 25100 et seq. and Porter Cologne Water Quality Control Act, California Water Code, Div. 7, Sec 13000 et. seq.

6. Project schedule

The estimated length of time needed to perform the clean-up work is approximately three to five months exclusive of soil evaluation. Site work has been initiated under OSC warrant authority as of December 16, 1998, when a Delivery Order for \$200,000 was issued to the ERRS-west contractor to initiate the Phase 1 work outlined above.

B. ESTIMATED COSTS

Cost Projection Scenario

Project ID Number: 6Q Date: 12-98
Cleanup Contractor: CET START Contractor: E & E

Cost Projection Summary

Contractor Personnel	\$ 400,000
Contractor Equipment	\$ 100,000
Transportation and Disposal	\$ 400,000
Other Cost Items	\$ 100,000
Cleanup Contractor Subtotal	\$1,000,000
Extramural Contingency (20%)	\$ 200,000
Cleanup Contractor Subtotal	\$1,200,000
START Personnel	\$ 120,000
START Analytical Services	\$ 60,000
Other Cost Items	\$ 20,000
START Subtotal	\$ 200,000
Project Contingency (20%)	\$ 40,000
START Subtotal	\$ 240,000
Extramural Subtotal	\$1,440,000
PST	\$ 60,000
Total Extramural Cost	\$1,500,000
EPA Regional Personnel	\$ 130,000
EPA Headquarters Direct (10% of Regional Hours)	\$ 20,000
EPA Total	\$ 150,000
Project Total	\$1,650,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this action is not taken or is delayed, the containers holding wastes and hazardous materials will continue to deteriorate and will release their contents. It is possible that the cyanide and acids will commingle and release toxic cyanide gases. Hazardous liquids and contaminated stormwater may flow off the site.

VII. OUTSTANDING POLICY ISSUES

No outstanding policy issues have been identified at this time.

VIII. ENFORCEMENT

See Enforcement Confidential Addendum

IX. RECOMMENDATION

This decision document represents the selected removal action for the Francis Plating Site in Oakland California developed in accordance with CERCLA as amended, and the NCP. This decision is based on the administrative record for the site.

Conditions at the site meet the NCP section 300.415(b)(2) criteria for a removal and I recommend you approve the proposed removal action. The total project ceiling if approved will be 1,650,000. Of this, an estimated \$1,260,000 comes from the Regional removal allowance.

Approval Signature Mary L. [unclear] for KAT Date 12/28/98

Disapproval Signature _____ Date _____

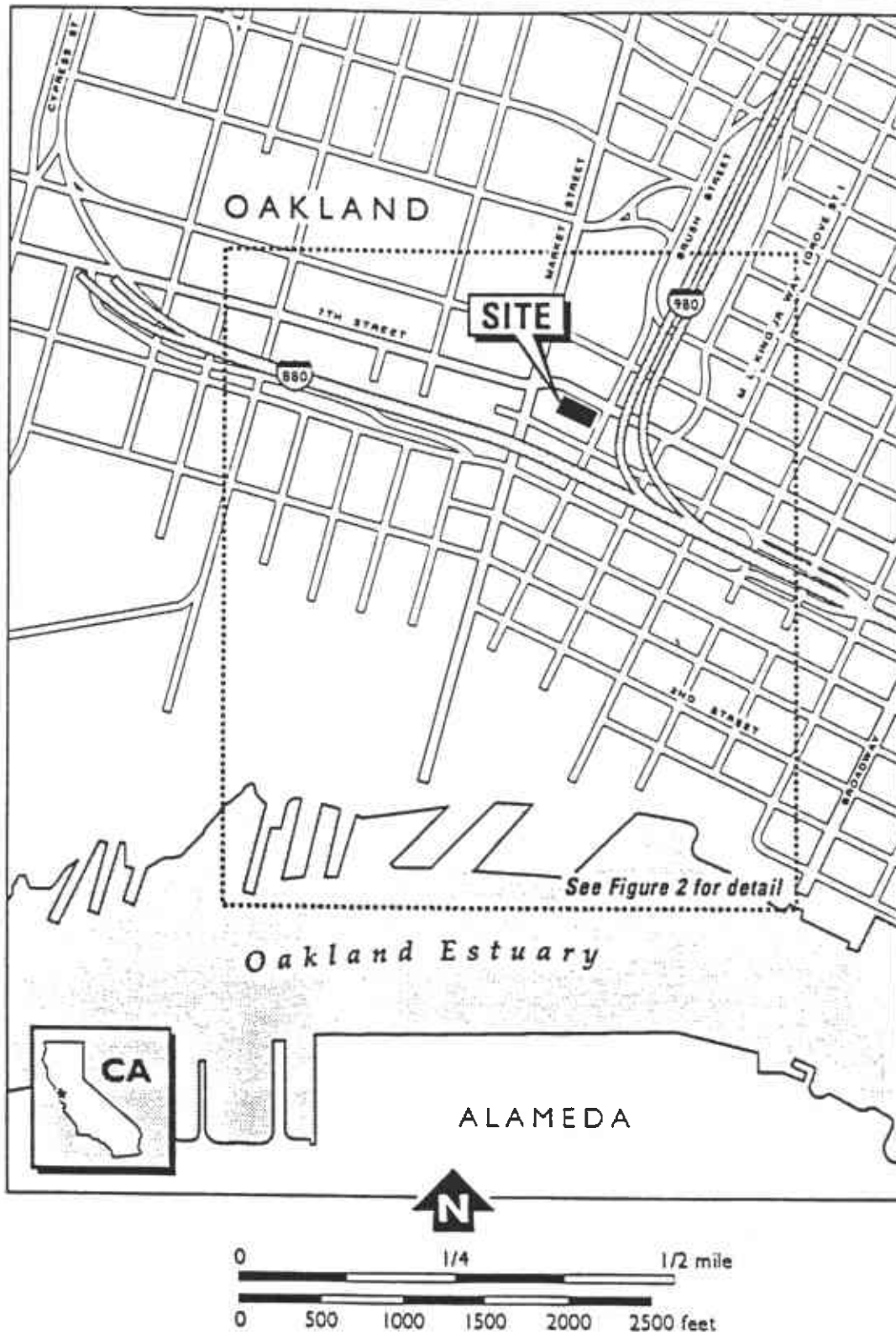


Figure 1
SITE LOCATION
Francis Plating of Oakland
785 7th Street
Oakland, California

Brush Street

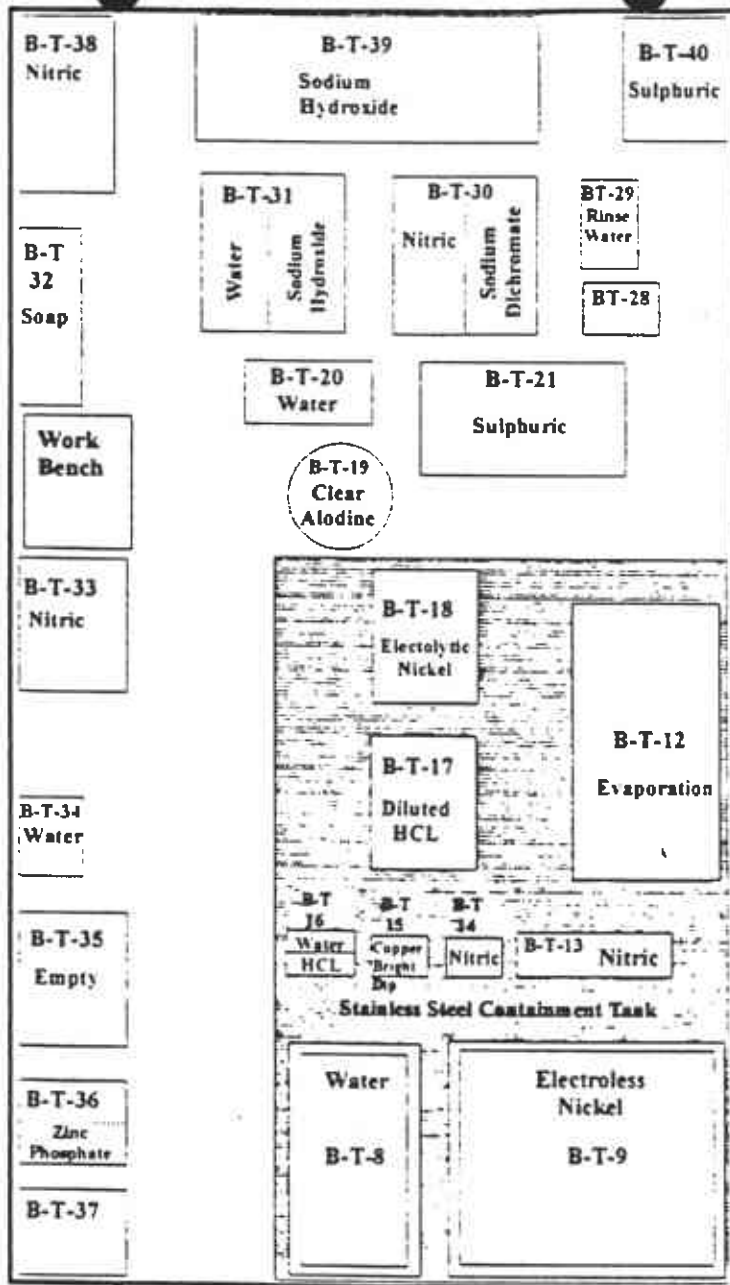
Plating Room

Rear Yard

Front Yard

7th Street

not to scale



B-T-41 Unknown

B-T 26 Nickel Acetate

B-T 27 Alodine

B-T-25 Red Dye

B-T 22 Black Dye

B-T-24 Red Dye

B-T 23 Yellow Alodine

Electroless Nickel

B-T-11

B-T-10

B-T-5

VAULT

B-T-7 Electroless Nickel

Electroless Nickel → B-T-3

B-T-4 Chromate Conversion

B-T-6 Silver

B-T-2

B-T-1 Cadmium Cyanide

FRANCIS PLATING

BRI SH

Gate

STREET

Plating Shop Room

Shed

Container

2 Stacked Containers

Awning

2-15

68-90

92

91

Rear Yard

16-19

Nickel Sulfate

20

21-36

Green Tower

37-46

47-52

Hydrofluoric ?

57-67

Nitric

53-56

Steel Box

Boiler

Steel Box (open front)

Electrical Room

93

Boiler Room

Francis Plating

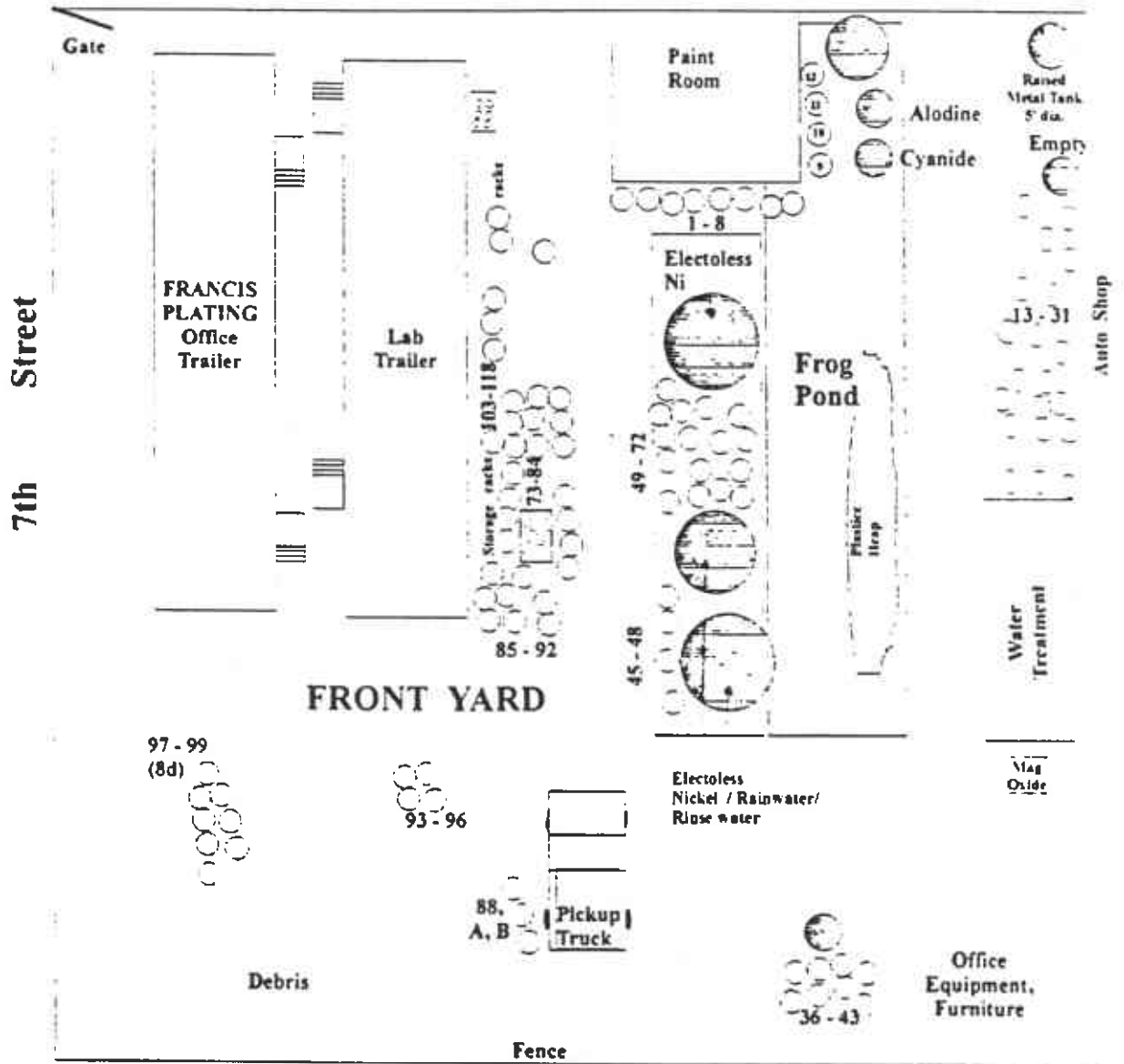
FRANCIS PLATING

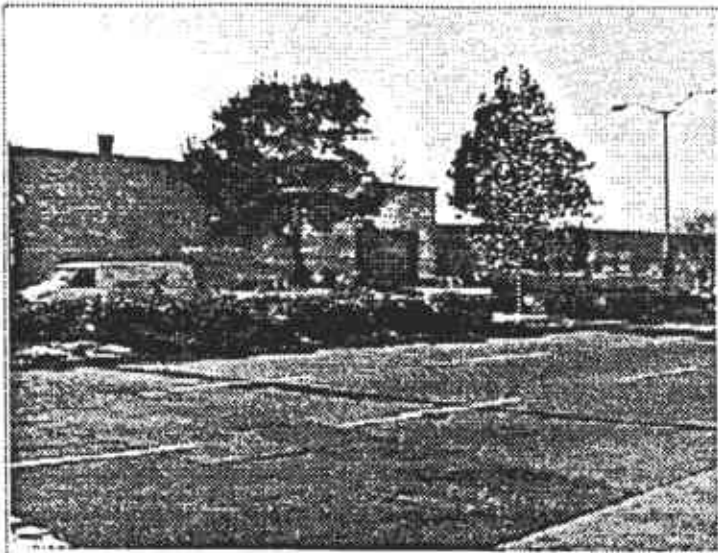
Rear Yard

Vault Area

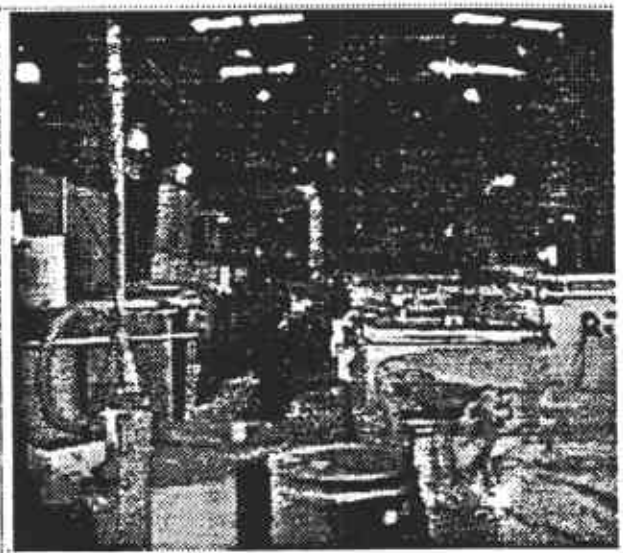
Covered Area

Fire Damage

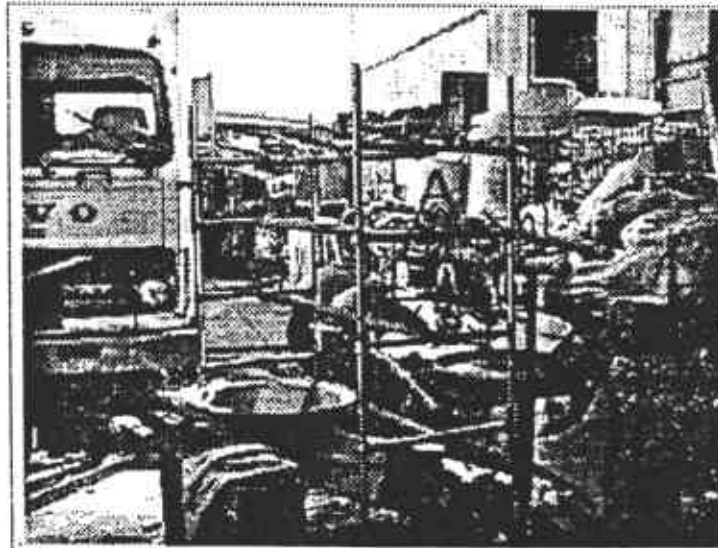




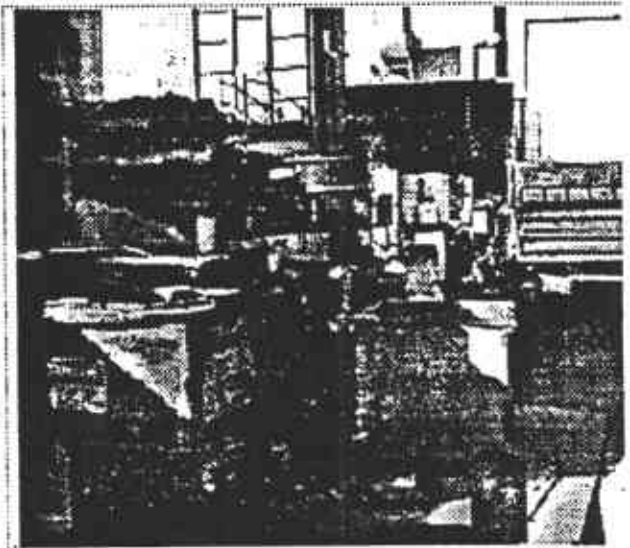
Francis Plating Exterior on 7th St. Oakland, CA



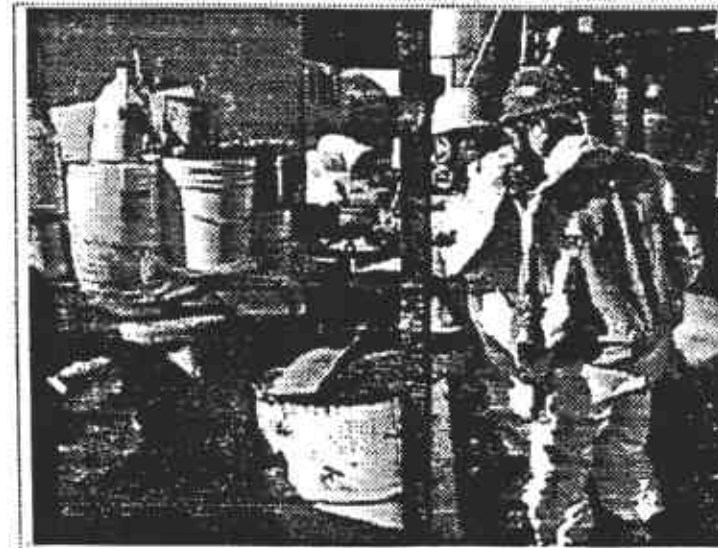
Main Plating Room



Rear yard view facing south



Rear yard view facing north



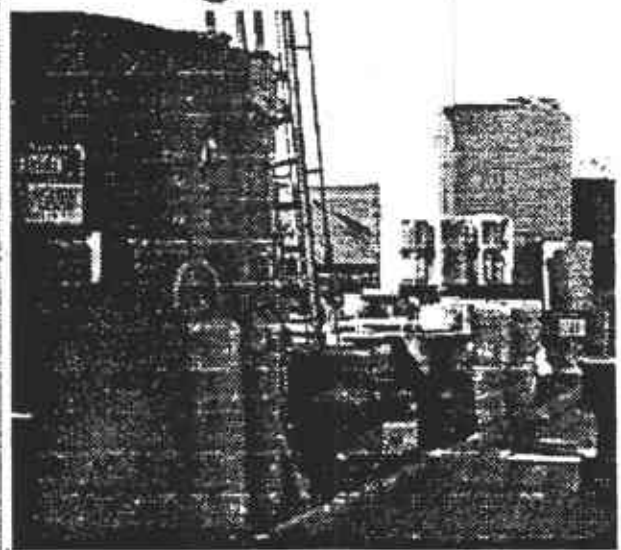
Rear Yard view of assessment sampling



Rear Yard view facing west



Front yard frog pond area with zinc cyanide poly in back



Front yard view facing north