UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

EPA Region 5 Records Ctr.
247998

REPLY TO THE ATTENTION OF:

SE-5J

MEMORANDUM

DATE: JAN 07 1997

SUBJECT: ACTION MEMORANDUM - Request for a Time-Critical Removal Action at the Double A Metals Site, Chicago, Cook County, Illinois.

FROM: Charles Gebien, On-Scene Coordinator
Emergency Response Section II

TO: William Muno, Director
Superfund Division

THRU: for Richard Karl, Chief
Emergency Response Branch

Site ID # A572

I. PURPOSE

The purpose of this memorandum is to request and document approval to expend up to $ 595,520 to conduct a time critical removal action at the Double A Metals Site in Chicago, Cook County, Illinois.

The Double A Metals site is an abandoned aluminum dross recycling facility. Approximately 3000 cubic yards of lead contaminated bag house dust and slag, 100 drums of waste oils and solvents, and 15 propane gas cylinders were abandoned at the site. The removal action seeks to abate the imminent and substantial threat to human health and the environment from these hazardous substances by removing and disposing of them. The removal action is considered a time-critical action due to the direct contact and inhalation threat from these hazardous wastes to the public, and to the potential for fire and explosion. The removal action will require 20 on-site working days to complete.

This action will be the first removal. The site is not included on the National Priorities List (NPL).

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II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # ILD025352139

A. Physical Location

The Double A Metals site is an inactive aluminum dross recycler located at 3321 S. Pulaski Road, in Chicago, Cook County, Illinois (Figure 1). Coordinates for the site are 87 degrees 43′ 00" W longitude by 41 degrees 50′ 00" N latitude. The site is located in an area of mixed industrial, commercial and residential development. The site is bordered to the west by Pulaski Avenue, to the north by a rail line, and to the south and east by an unnamed service road. A Commonwealth Edison power plant is located south of the site and a City of Chicago recycling center is located to the east. The nearest residence is located on Pulaski Road, approximately 300 feet north of the site.

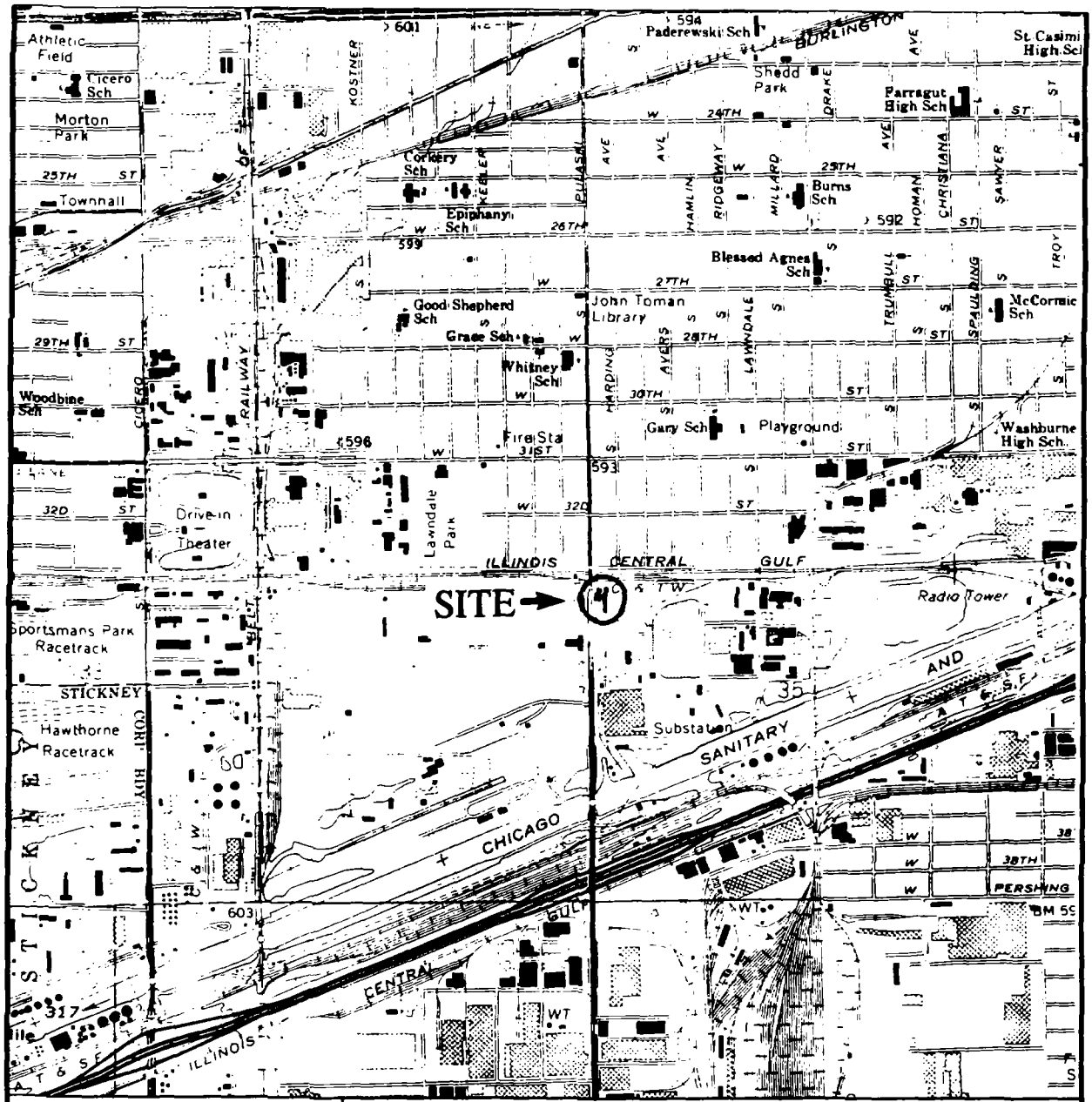
B. Site Description and Background

The site is approximately four acres and is encircled by a deteriorated fence (Figure 2). The site contains two main buildings connected in an "L" shape, a large front yard with a loading dock, and a back yard area. The is site not secured, the fence has several holes, and the buildings contain graffiti, broken windows, and refuse.

The front and back yard areas contain large waste piles comprised of coarse slag. The waste piles vary in color and consistency. Some piles consist of brown material with rusted metal artifacts. Other piles are black with oxidized blue and white granules. One waste pile in the back yard appears to be fine-grained bag-house dust. The northern yard also contains four large electrical transformers which have been dismounted and stripped.

The loading dock is flooded with rainwater and has a sheen on the surface. It contains tires, propane tanks, drums, a fire extinguisher, and other debris. Nine drums which contain fuel oil, solvents, and unkown materials are scattered throughout the outdoor dock area.

The west building is made of brick and contains four small rooms, one large room, an office area, and a partially closed area. The large room contains several piles of light gray material which has a very fine texture like a powder. This room also contains approximately 60 drums stacked on pallets. The small southwest room contains six drums of volatile organic material and a large compressed argon gas cylinder. The small southern room contains a tank and a drum. The small southeast room is filled with empty containers and debris. The office area on the west side of the main room contains debris and office furniture. The partially enclosed area contains about 20 bags of hydrated lime on a pallet. The small room on the east side of the west building contains three drums.

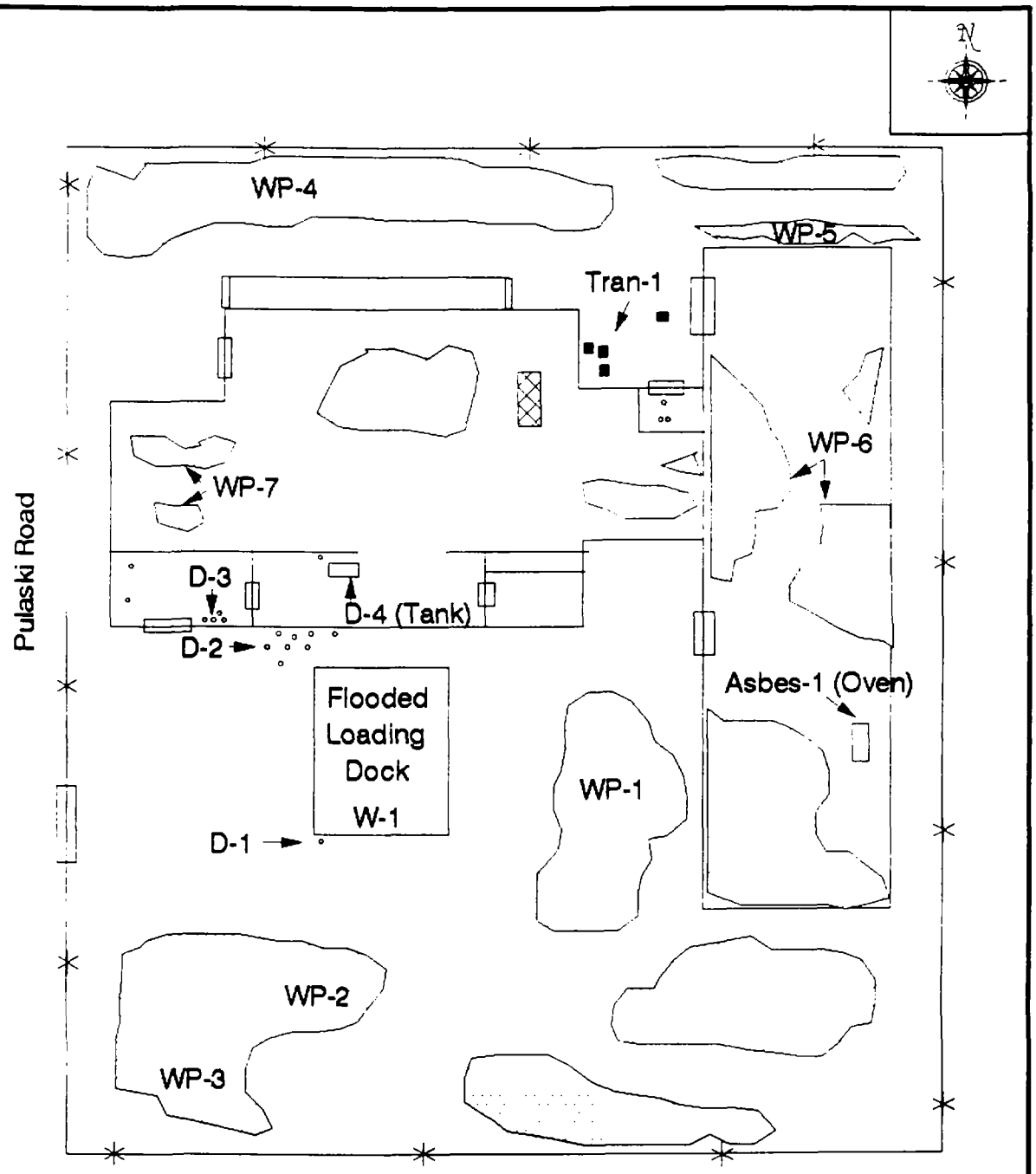


QUADRANGLE LOCATION

EPA U.S. EPA REGION V

EMERGENCY AND ENFORCEMENT RESPONSE BRANCH

TITLE: Site Location Map	FIGURE #: 1
SITE: Double A Metals	SCALE: 1:24000
CITY: Chicago STATE: Illinois	TDD: S05-9609-023
SOURCE: USGS Topographical Map, 7.5' Series **Quadrangle: Englewood, Illinois**	DATE: 1980 REVISED:



Legend	
D-1	Drum Sample
WP-1	Waste Pile Sample
Tran-1	Transformer Sample
Asbes-1	Insulation Sample
W-1	Water Sample

EPA U.S. EPA REGION V

EMERGENCY AND ENFORCEMENT RESPONSE BRANCH

TITLE	Sample Location Map	FIGURE #	2
SITE	Double A Metals	SCALE	Not to Scale
CITY	Chicago STATE Illinois	TDD	S05-9609-023
SOURCE	Ecology and Environment, Inc.	DATE	10/96
		REVISED	

The east building is made of metal and glass and contains one large room. Approximately 80 percent of the ground space in this building is covered by waste piles similar to those in the main building on the site. This building also contains scattered empty drums and a large industrial furnace.

A Phase 1 Property Assessment of the site was prepared in 1990, by Gabriel Laboratories of Chicago, Illinois, for Jepscor Metals of Dixon, Illinois, parent company to Double A Metals. According to this document, operations related to recovery of aluminum on site began in approximately 1965 by the H. Winter Metal Company. Between 1983 and 1990, the site was operated by the Jay Armstrong Metals Company. Double A Metals, a subsidiary of Jepscor Metals, operated the site for only a short period, operations ended in approximately 1991. Prior to aluminum recovery, the site was used as a truck garage and for manufacturing operations which began in approximately 1917.

A Phase 2 Property Assessment of the site was completed in 1991 by Gabriel Laboratories. The assessment included 13 soil borings and sampling in areas where storage of fuel and lubricants was observed. Analytical results indicate that low levels of organic compounds are present in soil beneath the site. The borings indicate that the site is underlain by black and gray clay.

On September 24, 1996, Mr. Joseph Schuessler, City of Chicago Department of Environment (CDOE), Director of Toxic Pollution Control, referred the site to the U.S. EPA Emergency Response Branch (ERB) for consideration for a removal action.

C. Current Site Conditions

On October 7, 1996, U.S. EPA On-Scene Coordinator (OSC) Charles Gebien, Ray Lechnen, U.S. Coast Guard, and START members met at the site to perform the site removal assessment. The site assessment team members observed approximately 3000 cubic yards of lead contaminated bag house dust and slag scattered in waste piles throughout the site, over 100 drums of waste oils, solvents and unknown materials, and approximately 15 propane gas cylinders. The team also observed four large electrical transformers which were stripped and their oil was dumped onto the soil and a large industrial furnace which contained an asbestos like insulation.

During the site removal assessment, four drum samples, seven waste pile samples, one transformer sample, one insulation sample, and one water sample were collected (Figure 2). Approximately 60 triple stacked drums were not accessible for sampling. Sampling was conducted in level B protection using non-sparking tools to open the drums and a drum thief to extract the material. The samples were dark brown in color and appeared to be petroleum-based materials. Seven waste piles were sampled from both outside and inside the buildings. Location and appearance determined which piles were sampled to ensure obtaining all types of material. Sampling of the waste piles was

conducted in level C protection. Samples were collected at 0 - 6 inches below the surface using a stainless steel hand shovel and stainless steel bowl to obtain a homogenized composite sample from six to ten locations within a waste pile. One composite transformer-area sample was obtained while in level C protection. Liquid from the transformers and soil from the area was placed in the sample container. A large insulated furnace was sampled for asbestos with a hand shovel while in level C protection. One water sample was collected by dipping the container into the flooded area of the loading dock in various places while in level D protection. Drum samples were analyzed for pH, flash point, volatile organic compounds, and polychlorinated biphenyls (PCBs). The water and waste pile samples were analyzed for total Resource Conservation and Recovery Act (RCRA) metals. The transformer area sample was analyzed for PCBs. The insulation was analyzed for asbestos.

Analytical results for water sample W-1 and waste pile samples WP-1 through WP-7 are summarized in Table 4-1. The RCRA hazardous waste criteria (40 Code of Federal Regulations [CFR] Subsection [§] 261.24) for toxicity characteristics leaching procedure (TCLP) lead (waste code D008) is 5 milligrams per liter (mg/L). Four of the seven waste pile samples contained levels of TCLP lead in excess of this level, with the highest level, 28.2 mg/L detected in sample WP-2. The average total lead levels for the seven waste pile samples is 1445 milligrams per kilogram (mg/kg), the highest is 3,180 mg/kg.

Analytical results are for drum samples D-1 through D-4 summarized in Table 4-2. Levels of arsenic and barium were detected in the water sample collected from the loading dock at levels below the Safe Drinking Water Act Maximum Contaminant Levels for these elements. The drum samples contained volatile organic compounds included as hazardous wastes from non-specific sources in 40 CFR § 261.31 including xylene and ethyl benzene, waste code F003; and toluene, waste code F005. The characteristic of an ignitable waste as defined in 40 CFR § 261.21 is a flash point less than 140° Fahrenheit. The drum samples collected indicate that the waste materials are not ignitable, but are combustible.

Polychlorinated biphenyls are controlled under the Toxic Substances Control Act (TSCA), PCBs were not detected in the drum samples or in the soil sample collected near the transformers. Asbestos was not identified in the sample of material from the furnace.

D. State and Local Authorities Roles

On September 24, 1996, Joe Schuessler, CDOE, requested assistance from the U.S. EPA in evaluation of threat(s) to public health and/or the environment posed by the site. Neither the City of Chicago nor IEPA have sufficient funds to conduct removal activities at the site. The U.S. EPA will inform Mr. Schuessler and IEPA of all actions proposed or taken pertaining to the site.

Table 4-1
WATER AND WASTE PILE ANALYTICAL RESULTS
CHICAGO, COOK COUNTY, ILLINOIS
OCTOBER 7, 1996
units = mg/kg

Parameters	Sample Designation							
	W-1	WP-1	WP-2	WP-3	WP-4	WP-5	WP-6	WP-7
Arsenic	.0084	8.5	19	17	28	20	14	17
Barium	.106	127	123	72	150	66.4	97	211
Cadmium	ND	4.9	24	2.54	3.18	4.70	19	38
Chromium	ND	333	487	136	530	326	560	490
Lead	ND	500	3,180	237	3,180	310	910	1,800
TCLP lead (mg/L)	NA	0.3	28.2	0.2	22	0.5	16	14
Mercury	ND	ND	ND	ND	ND	.21	.08	.72
Selenium	ND	6.6	9.3	8.7	9.6	6.8	5.8	6.3
Silver	ND	14	18	2.3	12	2.2	10	16

Key:
TCLP = Toxicity Characteristics Leaching Procedure.
mg/L = Milligrams per liter.
mg/kg = Milligrams per kilogram.
ND = Not Detected

Source: National Environmental Testing, Inc., Bartlett, Illinois, October 25, 1996

Table 4-2
DRUM SAMPLE ANALYTICAL RESULTS
DOUBLE A METALS
CHICAGO, COOK COUNTY, ILLINOIS
OCTOBER 7, 1996

Parameter	Units	Sample Designation			
		D-1	D-2	D-3	D-4
Ethyl Benzene	(mg/kg)	340	320	120	2
Toluene	(mg/kg)	120	400	ND	2
Total Xylenes	(mg/kg)	1,150	1,780	490	3
Flash Point	°F	170	>200	190	>200
pH	Standard Units	5.0	6.3	6.1	8.5
PCBs	(mg/kg)	ND	ND	ND	ND

Key:
TCLP = Toxicity Characteristics Leaching Procedure.
mg/L = Milligrams per liter.
mg/kg = Milligrams per kilogram.
ND = Not Detected
°F = degrees Fahrenheit
> = greater than

Source: National Environmental Testing, Inc., Bartlett, Illinois, October 25, 1996

III. THREAT TO PUBLIC OR WELFARE OR THE ENVIRONMENT

Conditions present at the Double A metals site may constitute an imminent and substantial threat to public health and welfare and the environment, based upon considerations set forth in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Section 300.415 (b)(2), and therefore may justify that a time-critical removal action be conducted at the site. These conditions include, but are not limited to, the following:

1) **Actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances, pollutants, or contaminants;**

Concentrations of TCLP lead up to 28.2 mg/L, averaging 11.6 mg/L, were detected in the waste pile samples collected from the Double A Metals site. These levels of TCLP lead exceed the maximum concentration for the toxicity characteristic of 5 mg/L and render the waste piles a D008 hazardous waste. The Double A Metals site is located in an area with mixed commercial and residential development. The nearest residence is 300 feet north of the site. The site is not secure, there are holes in the perimeter fencing and there is evidence of previous human intrusion in the building such as graffiti, broken windows and debris. Lead has been shown to affect virtually every organ and/or system in the bodies of both humans and animals. The most sensitive target organs of lead appear to be the nervous system, especially in children, the hematopoietic system and the cardiovascular system. There is also evidence to support the fact that lead can lead to kidney and immune system damage in humans and animals. Lead has also been proven to be carcinogenic in animals.

2) **Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;**

U.S. EPA estimates that over 100 55-gallon drums are stored at the site, many of which contain hazardous substances including ethyl benzene, toluene, xylene, arsenic, and chromium. Several drums are overturned and have leaked their contents to the floor. Drums and other containers are stored together and in some areas are triple stacked irrespective of their incompatibility. Approximately fifteen compressed gas cylinders, some of which were labeled as propane and argon, were found scattered in the indoor and outdoor areas of the site.

3) **High levels of hazardous substances or pollutants in soils at or near the surface that may migrate;**

The waste piles and drums on site do not have adequate primary or secondary containment. Precipitation and wind could spread the waste material throughout the site, and to the subsurface and off-site areas.

4) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

All of the uncontrolled drums, containers, and gas cylinders at the site are exposed to the weather. The site's buildings are in deteriorating condition and have been badly vandalized. Portions of the buildings roofs and walls have collapsed onto the main floor near the drummed wastes and most of the windows are broken. Utility services at the site have been disconnected since the abandoning of the facility and extreme heat or cold and precipitation could cause accelerated deterioration of the drums. Many of the drum lids and sides of the drums have corroded and have already released their contents to the floor. Flooding conditions in buildings may release spillage of hazardous wastes to outdoor areas.

5) Threat of fire or explosion;

Drummed combustible liquids and oils which contain hazardous substances were found at the Double A Metals site. Approximately fifteen compressed gas cylinders, some of which were labeled as propane and argon, were found scattered in the indoor and outdoor areas of the site. Propane is a flammable gas, which if released may accumulate in low lying or confined areas. The unsecured conditions at the site may allow trespassing or acts of vandalism, which may result in a fire or explosion.

IV. ENDANGERMENT DETERMINATION

Waste piles of bag house dust and slag that are stored at the site are hazardous wastes (D008) due to their lead content. Open drums, compressed gas cylinders, and other improperly stored containers at the Double A Metals site contain ethyl benzene, toluene, xylene, propane, arsenic, chromium, and unknown wastes. These wastes pose inhalation, ingestion, and contact hazards to trespassers and salvage workers, as well as surrounding residents in this mixed residential and industrial area.

Given the site conditions, the nature of the hazardous substances on site, and the potential exposure pathways to nearby populations described in Sections II and III above, actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions 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

1. Proposed Action Description

The purpose of this removal action is to mitigate the imminent and substantial threats posed to public health or welfare or the environment from wastes stored at the site. The proposed time-critical emergency response action includes the following actions:

1) A site health and safety plan will be implemented, and the site will be secured by sealing broken doors and windows in the buildings, as needed. The site perimeter fence will be repaired.

2) The contents of drums and other containers will be segregated, staged, sampled, and categorized for disposal. Compatible waste streams will be bulked and disposed of off-site. Spillage will be cleaned from floors and the dock area.

3) Waste piles of bag house dust and slag will be treated on-site, as needed, and disposed of off-site.

4) Compressed gas cylinders will be returned to vendors or otherwise disposed of off-site.

Waste transportation and disposal will be handled in full compliance with the Agency's off-site Rule 40 CFR 440. Provisions for post-removal site control are being planned by the OSC consistent with the provisions of Sections 300.415 (k) of the NCP.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the Double A Metals site which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

2. Contribution to Remedial Performance

The Double A Metals site is a non-NPL site for which remedial actions have not been planned to date. The proposed removal action will address all threats meeting the NCP Section 300.414 (b) (2) removal criteria as identified in Section III of this Action Memo.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

All Federal ARARs and any Illinois ARARs identified in a timely manner will be complied with to the extent practicable. A letter will be sent to Bruce Everetts of IEPA requesting that the state identify state ARARs.

4. Project Schedule

Removal activities will require an estimated 20 10-hour working days.

B. Estimated Costs

The estimated costs of the recommended action are summarized in the following table. The detailed Emergency Response Cleanup Services (ERCS) contractor costs is presented in Attachment A.

EXTRAMURAL COSTS:	
Cleanup Contractor Costs	$358,000
Contingency (20%)	$ 71,600
Subtotal	$429,600
Total START	$ 38,000
Extramural Subtotal	$467,600
Extramural Contingency (20%)	$ 93,520
TOTAL, EXTRAMURAL COSTS	$561,120
INTRAMURAL COSTS:	
U.S. EPA Direct Costs [$30x(400 Regional Hrs.+40 HQ Hrs.)]	$ 13,200
U.S. EPA Indirect Costs [$53 x 400 Regional Hrs.]	$ 21,200
TOTAL, INTRAMURAL COSTS	$ 34,400
TOTAL REMOVAL PROJECT CEILING	**$595,520**

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

Delayed action will increase the likelihood of release due to tampering with waste piles, drums, and compressed gas cylinders containing hazardous substances by trespassers, salvagers, and vandals, and/or weather damage. Any such release or exposure will contribute and ultimately lead to increased risks to public health and the environment.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues for the Double A Metals site.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement

strategy for this site is contained in an Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Double A Metals site, in Chicago, Illinois, developed in accordance with the Comprehensive Environmental Response, Cleanup, and Liability Act (CERCLA) as amended by SARA, and is not inconsistent with the NCP. Conditions at the site meet the NCP section 300.415(b)(2) criteria for a removal and I recommend your approval of the proposed removal action. The total project ceiling, if approved, will be $595,520. Of this, an estimated $523,120 may be used for cleanup contractor costs. You may indicate your decision by signing below:

APPROVE: _____ **DATE:** 1/7/97
DIRECTOR, SUPERFUND DIVISION

DISAPPROVE: _____ **DATE:** _____
DIRECTOR, SUPERFUND DIVISION

ATTACHMENTS:
A. REMOVAL COST ESTIMATE
B. *ENFORCEMENT CONFIDENTIAL INFORMATION*
C. ADMINISTRATIVE RECORD

cc: E. Watkins, U.S. EPA HQ, 5202G
D. Henne, Regional Environmental Officer
U.S. Department of the Interior, Custom House Room 217
200 Chestnut Street, Philadelphia PA 19106-2904
B. Everetts
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road, Springfield, IL 62706

BCC LIST
1 PAGE

HAS BEEN REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

ATTACHMENT A

DETAILED ERCS CONTRACTOR COSTS
Double A Metals Site
Chicago, Illinois

PERSONNEL	$45,000
EQUIPMENT	50,000
MATERIALS	55,000
SUBCONTRACTORS	70,000
TRANSPORTATION	50,000
DISPOSAL	88,000
TOTAL	$358,000

ATTACHMENT B

ENFORCEMENT CONFIDENTIAL INFORMATION

ENFORCEMENT ADDENDUM
ENFORCEMENT CONFIDENTIAL
1 PAGE

REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

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ATTACHMENT C

ADMINISTRATIVE RECORD
FOR
DOUBLE A METALS SITE
CHICAGO, IL

Original December 24, 1996.

DATE	AUTHOR	RECIPIENT	TITLE/ DESCRIPTION	PAGES
12/19/90	Gabriel Labs	Jepscor Metals	Level I Environmental Property Survey	21
04/12/91	Gabriel Labas	Jepscor Metals	Level II Environmental Investigation	47
00/00/00	E & E	U.S. EPA	Site Assessment/ Removal Action Plan (Pending)	
00/00/00	C. Gebien U.S. EPA	U.S. EPA	Action Memorandum (Pending)	