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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
9311 GROH ROAD
GROSSE ILE, MI 48138

08 APR 2010

MEMORANDUM:

SUBJECT: ACTION MEMORANDUM - Request for Approval of a Time-Critical Removal Action at the Midwest Metallurgical Laboratory Site, Marshall, Calhoun County, Michigan (Site ID # B5TY)

FROM: Jeffrey A. Lippert, On-Scene Coordinator (OSC)
Jeffrey W. Kimble, On-Scene Coordinator (OSC)
Emergency Response Branch-1
Oil Planning and Response Section

THRU: Jason El-Zein, Branch Chief
Emergency Response Branch-1

TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

This memorandum is to request and document your approval to expend up to \$295,106 to conduct a time-critical removal action at the Midwest Metallurgical Laboratory Site (Site), in Marshall, Calhoun County, Michigan. The response actions proposed herein are necessary in order to mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances at the Site. The presence of hazardous substances existing at the Site has been documented. These include Toxicity Characteristic Leaching Procedure (TCLP) results for arsenic of 6.1 parts per million (ppm), six times above what is characteristically toxic for arsenic. Arsenic levels in the soil were as high as 13 ppm, exceeding the State of Michigan's Direct Contact Criteria.

Corrosive substances in drums, containers and totes in the building had pHs as low as 0.0 standard units (su) and as high as 14.0 su. Both levels are considered characteristically hazardous. There is also physical evidence that trespassers have accessed the buildings and both vandalized and burglarized the property. Access to the Site is unrestricted due to unsecured building doors and large accessible gaps in the perimeter fence.

The response action proposed herein will mitigate the threats at the Site by properly identifying, consolidating, and packaging hazardous materials, pollutants, and contaminants on-site. The consolidated materials will be removed and ultimately disposed off-site. Additional Site activities will include security; perimeter air monitoring; and decontamination of the building, as needed to complete the removal action. This response action will be conducted in accordance with Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC § 9604(a)(1), to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances. The uncontrolled conditions of the hazardous substances present at the Site require that this action be classified as a time-critical removal action. The project will require approximately 50 working days to complete.

There are no nationally significant or precedent setting issues associated with the Site. The Site is not on the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

The CERCLIS ID # for this Site is: MIN000510419

A. Physical Location and Description

The Site is located at 15290 15 Mile Road in Marshall, Calhoun County, Michigan 49068 in a mixed residential/industrial/agricultural area. Coordinates for the Site are 42.294437 degrees north and -85.0037194 degrees west. The Site consists of a 25-acre parcel bordered by 15 Mile Road and agricultural and residential properties to the west, vacant land to the north and east, and agricultural to the south. The Site is the former location of Midwest Metallurgical Laboratory, a foundry for the Detroit Stoker Company. The Site includes one main building, an office area and two smaller out buildings.

In September 2009, Calhoun County became aware of conditions at the Site which required attention, including potentially uncontrolled waste, and requested assistance from the United States Environmental Protection Agency (EPA).

B. Site Background

The Midwest Metallurgical Laboratory (MML) was founded in 1942. The casting/foundry building was constructed in 1960. The Site is a former ductile iron casting facility that provided complete foundry services, including Ni-Hard and Grey Iron castings from 1 to 900 pounds. In March 2002, the announcement was made that the MML facility was to be phased down and closed later that year as part of a plan to outsource production to lower cost producers. At the time of its closing, the MML facility employed approximately 65 workers. Since the closing of the MML facility, Charleston Auctions has held several public auctions in an attempt to sell Site equipment and property.

EPA conducted an assessment at the Site on October 5 and 6, 2009. Most buildings at the Site were found to contain uncontrolled hazardous wastes (containers labeled flammable,

corrosive, and oxidizer). Numerous drums, totes, and small containers of various sizes were found opened and unlabeled both inside the buildings and around the grounds. EPA quantified more than 2,500 gallons of uncontrolled and unidentified liquid wastes on the property. Five waste liquid samples were collected yielding pH results that are characteristically hazardous or TCLP levels that are characteristically toxic.

EPA documented unrestricted Site access in many areas and visual evidence of trespassing throughout the buildings and grounds. Numerous locks have been cut and fencing has been taken down by trespassers, vandals, and thieves in efforts to gain access to the buildings and property.

C. R5 Superfund EJ Analysis for Midwest Metallurgical Laboratory

The area surrounding the Midwest Metallurgical Laboratory Site was screened for Environmental Justice (EJ) concerns using Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT)). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to EPA Region 5. The Midwest Metallurgical Laboratory Site is in a census tract with a score of 6 (Attachment 3). Therefore, Region 5 does not consider this site to be a high-priority potential EJ area of concern. Please refer to the attached analysis for additional information.

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

The conditions present at the Site present an imminent and substantial threat to the public health, or welfare, and the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), as amended, 40 CFR Part 300. These factors include, but are not limited to, the following:

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

Laboratory analytical and field screening results indicate that the material in totes, drums, and other small containers, as well as soil at the Site, is hazardous and/or potentially hazardous. Liquid and solid samples were collected for laboratory analysis from drums, totes and soils at the Site. The sampling locations were based on field screening results and visual observations.

The analytical results from four liquid samples containing acids indicated that the material is characterized as hazardous waste by corrosivity as defined in 40 CFR § 261.22. Corrosive wastes are considered characteristic hazardous wastes if they have a pH less than 2 or greater than 12.5 standard units (su). Analytical results showed that a sample collected from an unlabeled 250-gallon poly tote had a pH of 0.0 su. Two other containers, an unlabeled 16-gallon poly drum and a "sulfuric acid"-labeled 1-gallon glass

laboratory bottle also had a pH of 0.0 su. Analytical results for another liquid sample collected from a 250-gallon poly tote labeled "Resin Binder" indicated it had a pH of 14.00 su.

In addition, TCLP results from a 250-gallon tote and 16-gallon poly drum showed concentrations of selenium that exceeded the Maximum Concentration of Contaminants for the Toxicity Characteristic as defined in 40 CFR § 261.24.

Soil samples collected from outside the building showed levels of arsenic above the State of Michigan's Part 201 Generic Cleanup Criteria for Residential and Commercial I Direct Contact Exposure. In an area where numerous large bags of "bag house dust" were dumped, the levels of arsenic in the soil were as high as 13 ppm. This level is in exceedance of the State's Direct Contact Level of 7.6 ppm. The soil contamination is in close proximity to a deer bedding area.

Other potential chemical hazards on Site include:

- The presence of a large transformer unlabeled that is potentially PCB-containing;
- A drum staging area measuring approximately 5 by 10 feet with a steel mesh metal floor over a sub-floor containing approximately 1 foot of waste oil and sludge; and
- Approximately 450 small containers throughout the Site.

Access to the Site is unrestricted. The Site is partially fenced around exterior storage areas on the east and north sides. However, access is not restricted at the south and west sides of the Site. A cut lock and cable at the north gate, a collapsed fence, and a breach in the fence at the eastern Site perimeter in the south allow unrestricted Site access. Multiple bay doors showed signs of forced entry and chain-link fencing around an electrical transformer pad had a large hole, indicating obvious signs of trespassing. In addition, animal footprints were observed throughout the buildings and on the inside walls of multiple unsealed ring-top drums. A deceased raccoon was also discovered in a building at the Site.

Some wastes on Site are not properly containerized and none of the hazardous waste or potentially hazardous material containers have secondary containment. A number of the containers documented at the Site are deteriorated, corroded, and/or bulging. Potential releases of hazardous waste from the Site could, in addition to directly affecting nearby populations, also migrate off-site. Due to on-site waste storage conditions and visual evidence of trespassers and animal activity, hazardous waste on-site could be released. Potential exposure through each of these migration pathways could cause imminent endangerment to human health, welfare, or the environment.

2) Actual or potential contamination of drinking water supplies or sensitive ecosystems.

Totes, drums and other miscellaneous small containers containing hazardous wastes or potentially hazardous materials inside and around the main building could

become compromised and secondary containment is not present. Intentional or accidental releases of hazardous waste from the Site could enter storm sewers, contaminating nearby surface water bodies, and potentially affecting drinking water supplies and sensitive ecosystems.

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

Several drums, totes, transformers, and other containers contained hazardous waste or potentially hazardous chemicals, including strong acids, ignitable liquids, waste oil, and waste liquids with hazardous concentrations of selenium. Many of the drums were in poor condition and were corroded or bulging. As described above, four liquid samples from Site drums, totes, and containers were identified as characteristically hazardous wastes. The buildings have been broken into and vandalized, and scrap metal from the property has been illegally salvaged by trespassers. Weathering and activity of trespassers could cause containers on-site to breach and the contents of the containers could thereby be released into the environment.

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

South-central Michigan summers and winters may result in vaporization and the freeze-thaw cycles. These weather conditions could cause the subsequent breach of containment and release of chemicals at the Site. Currently, all buildings are exposed to adverse weather conditions such as high winds, rain, sleet, and snow. Severe weather conditions have and will continue to contribute to the deterioration of the Site buildings and the containers and drums stored there, creating the potential for additional releases and/or migration of hazardous substances.

5) **Threat of fire or explosion.**

Despite the fact that all electrical power has been shut off at the Site, the threat of fire or explosion is moderate because of unrestricted Site access and the potential trespassing and vandalism. As temperatures decrease in autumn and winter, the potential increases for vagrants to enter the buildings and start fires for warmth. A fire could produce toxic gases, irritants, hazardous smoke, and contaminated fire suppression water runoff.

6) **The availability of other appropriate federal or state response mechanisms to respond to the release.**

The Calhoun County Treasurer's Office requested EPA's assistance with a Site Assessment and Time-Critical Removal at the Site since historical usage of the buildings and Site property suggested the potential for hazardous waste to be present. This request documents the need for federal involvement to address imminent endangerment posed by the Site.

IV. ENDANGERMENT DETERMINATION

Given the Site conditions, the nature of the known and suspected hazardous substances on Site, and the potential exposure pathways described in Sections II and III, 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, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

The OSC proposes to undertake the following response actions to mitigate threats posed by the presence of hazardous substances at the Site:

1. Develop and implement a site-specific Health and Safety Plan, including an Air Monitoring Plan, and a Site Emergency Contingency Plan;
2. Develop and implement a Site Work Plan and Site Security Plan;
3. Inventory and perform hazard characterization, in compliance with a site-specific QA/QC Plan, on all substances contained in containers, drums, and totes;
4. Excavate and dispose of the contaminated soil on the property;
5. Remove and dispose of foundry sands within the building;
6. Consolidate and package all hazardous substances, pollutants and contaminants for transportation and off-site disposal;
7. Dismantle and/or decontaminate contaminated structures as necessary;
8. Transport and dispose of all characterized or identified hazardous substances, pollutants, wastes, or contaminants that pose a substantial threat of release at a RCRA/CERCLA-approved disposal facility in accordance with EPA's Off-Site Rule (40 CFR § 300.440).
9. Take any other response actions to address any release or threatened release of a hazardous substance, pollutant or contaminant that the EPA OSC determines may pose an imminent and substantial endangerment to the public health or the environment.

Post Removal Site Control

The removal action will be conducted in a manner not inconsistent with the NCP. The OSC has initiated planning for provision of post-removal Site control consistent with the provisions of Section 300.415(l) of the NCP.

Elimination of hazardous substances, pollutants and contaminants that pose a substantial threat of release is expected to minimize substantial requirements for post-removal site controls.

The estimated costs to complete the above activities are summarized below. These activities will require an estimated 50 on-site working days to complete.

Detailed cleanup contractor costs are presented in Attachment 1:

REMOVAL PROJECT CEILING ESTIMATE

EXTRAMURAL COSTS:

Regional Removal Allowance Costs: \$ 207,774

Total Cleanup Contractor Costs

(This cost category includes estimates for: ERRS, subcontractors, Notices to Proceed, and Interagency Agreements with Other Federal Agencies.

Other Extramural Costs Not Funded from the Regional Allowance:

Total START, including multiplier costs \$ 48,840

Subtotal, Extramural Costs \$ 256,614

Extramural Costs Contingency + \$ 38,492
(15% of Subtotal, Extramural Costs)

TOTAL, REMOVAL ACTION PROJECT CEILING \$ 295,106

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

Applicable or Relevant and Appropriate Requirements

All identified, applicable or relevant and appropriate requirements (ARARs) of Federal and state law will be complied with to the extent practicable considering the exigencies of the situation. The OSC sent a letter dated November 24, 2009, requesting ARARs to Mr. Gregg Brettmann, MDEQ, Kalamazoo Office, for any applicable state ARARs.

Off-Site Rule

All hazardous substances, pollutants or contaminants removed off-site pursuant to this removal action for treatment, storage and disposal shall be treated, stored, or disposed at a facility in compliance, as determined by U.S. EPA, with the U.S. EPA Off-Site Rule, 40 CFR § 300.440.

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

Delayed or no action will result in increased potential of the toxic and hazardous substances to release, thereby threatening the environment and the health and welfare of nearby residents and other persons who are in proximity to the Site.

VII. OUTSTANDING POLICY ISSUES

None

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$595,080.

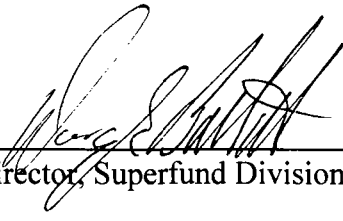
$$(\$295,106 + \$73,000) + (61.66\% \times \$368,106) = \$595,080$$

IX. RECOMMENDATION

This decision document represents the selected removal action for the Midwest Metallurgical Laboratory Site in Marshall, Calhoun County, Michigan. This document has been developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site, see Attachment II. Conditions at the Site meet the NCP § 300.415(b)(2) criteria for a time-critical removal action and I recommend your approval.

The total removal project ceiling, if approved, will be \$295,106. Of this, an estimated \$246,266 may be used for the cleanup contractor costs. You may indicate your decision by signing below.

APPROVE: _____

for  Director, Superfund Division

DATE: _____

4/6/10

DISAPPROVE: _____

Director, Superfund Division

DATE: _____

Enforcement Addendum

Attachments:

- I. Independent Government Cost Estimate
- II. Administrative Record Index
- III. Region V EJ Analysis
- IV. Detailed Cleanup Contractor Cost Estimate

cc: D. Chung, U.S. EPA, 5203-G
M. Chezick, U.S. DOI, w/o Enf. Addendum
Rebecca Humphries, Director, MDNRE, w/o Enf. Addendum
Michael Cox, Michigan Attorney General, w/o Enf. Addendum
P.O. Box 30212
Lansing, MI 48909
Gregg Brettman, MDNRE, w/o Enf. Addendum
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ENFORCEMENT CONFIDENTIAL ADDENDUM

**MIDWEST METALLURGICAL LABORATORY SITE
MARSHALL, CALHOUN COUNTY, MICHIGAN**

FEBRUARY 2010

(REDACTED 1 PAGE)

**ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY**

ATTACHMENT 1

INDEPENDENT GOVERNMENT CLEANUP CONTRACTOR ESTIMATE

**MIDWEST METALLURGICAL LABORATORY SITE
MARSHALL, CALHOUN COUNTY, MICHIGAN**

February 2010

The estimated cleanup contractor (ERRS) costs necessary to complete the removal action at the Midwest Metallurgical Laboratory Site are as follows:

Personnel	\$ 103,060
Equipment	\$ 18,238
Other Costs	\$ 22,050
Transportation and Disposal	<u>\$ 37,325</u>
Total ERRS Contractor Costs	\$ 180,673

ATTACHMENT 2

U.S. ENVIRONMENTAL PROTECTION AGENCY REMOVAL ACTION

ADMINISTRATIVE RECORD FOR MIDWEST METALLURGICAL SITE MARSHALL, CALHOUN COUNTY, MICHIGAN

ORIGINAL
FEBRUARY 2010

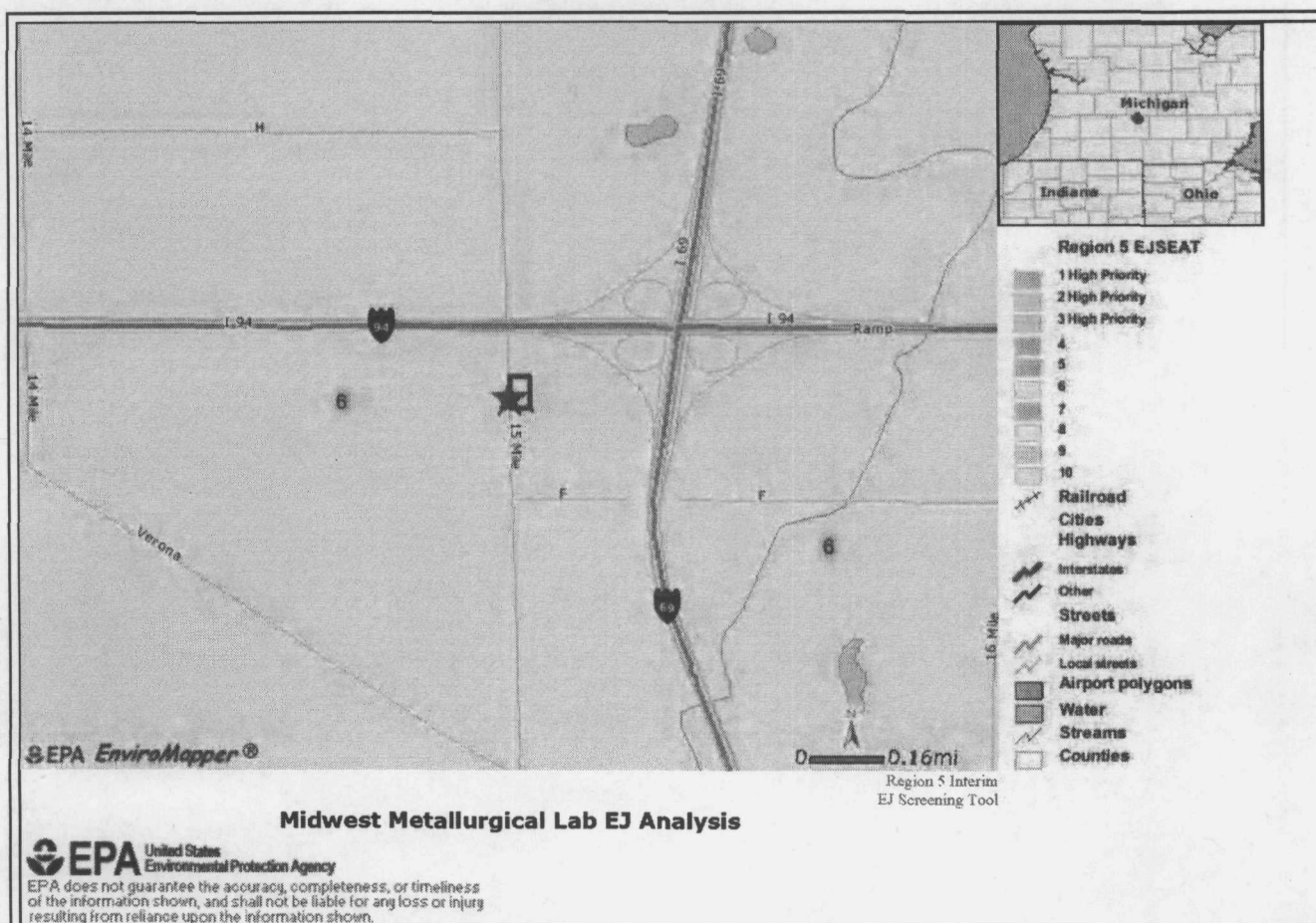
<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	08/00/07	ATSDR	File	ToxFAQs for Arsenic CAS #7440-38-2	2
2	09/23/09	Davis, L., Calhoun County	Kimble, J., U.S. EPA	E-mail Message re: Owner Information for the Midwest Metallurgical Laboratory Site	1
3	11/24/09	Lippert, J., U.S. EPA	Brettmann, G., MDEQ	Letter re: U.S. EPA's Request for MDEQ to Identify any State ARARs for the Midwest Metal- lurgical Laboratory Site	1
4	11/24/09	Brettmann, G., MDEQ	Lippert, J., U.S. EPA	E-mail Message re: MDEQ's Response to U.S. EPA's Request for any State ARARs for the Midwest Metallurgical Laboratory Site	1
5	11/30/09	Weston Solutions, Inc.	U.S. EPA	Site Assessment Report for the Midwest Metal- lurgical Laboratory Site	72
6	12/15/09	Weston Solutions, Inc.	U.S. EPA	Title Search Report for the Midwest Metallurgical Site	54
7	00/00/00	Lippert, J., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: PENDING	

Region 5 Superfund EJ Analysis

Midwest Metallurgical Lab Site, Marshall, MI

Attachment 3

Midwest Metallurgical Lab Site Map Showing EJ SEAT Values For Surrounding Area



ATTACHMENT 4

DETAILED CLEANUP CONTRACTOR COST ESTIMATE

**MIDWEST METALLURGICAL LABORATORY SITE
MARSHALL, CALHOUN COUNTY, MICHIGAN**

FEBRUARY 2010

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

(REDACTED 2 PAGES)