



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

US EPA RECORDS CENTER REGION 5



478896

REPLY TO THE ATTENTION OF:

MEMORANDUM

SUBJECT: Ceiling Increase and Change in the Scope of Response Request
ACTION MEMORANDUM - Request for Time-Critical Removal Action at the
Hoosier Wood Preservers Site, Indianapolis, Marion County, Indiana (Site ID #
C57K)

FROM: Shelly Lam, On-Scene Coordinator
Emergency Response Branch 1/Response Section 1

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

TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

This memorandum requests and documents your approval to expend up to \$1,750,081 to conduct a time-critical removal action at the Hoosier Wood Preservers Site (the site) in Indianapolis, Marion County, Indiana. This memorandum requests a ceiling increase and change in the scope of the response. On July 7, 2015, the United States Environmental Protection Agency (EPA) approved an action memorandum for \$245,455 to conduct emergency response actions to mitigate an imminent and substantial threat of release posed by hazardous substances, pollutants, or contaminants in drums, barrels, tanks, or other bulk storage containers.

The response actions proposed in this memorandum are necessary to mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances at the site. Arsenic has been found in soil, floor material, and ash at the site. Arsenic is a hazardous substance as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601(14).

The time-critical removal action proposed herein is to prepare site plans, including a Work Plan, Quality Assurance Project Plan, site-specific Health and Safety Plan, and Emergency Contingency Plan; remove and treat contaminated soil and material; investigate geophysical anomalies identified by EPA during a site assessment; collect confirmation samples; replace excavated material with clean fill; conduct sampling and analysis to determine disposal options; transport and dispose off-site any hazardous substances, pollutants and contaminants at a

CERCLA-approved disposal facility in accordance with EPA's Off-Site Rule at 40 C.F.R. § 300.440.

EPA will conduct these response actions in accordance with Section 104(a)(1) of CERCLA, 42 U.S.C. § 9604(a)(1), and 40 C.F.R. § 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to abate or eliminate the immediate threats posed to public health and/or the environment.

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 60 working days to complete.

There are no nationally significant or precedent setting issues associated with the site.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID: INN000505835
RCRA ID: IND075982975
Category: Time-Critical Removal Action

A. Site Description

1. Removal Site Evaluation

The following sections provide background information on the site. EPA initiated an emergency response action on May 26, 2015. EPA's actions included staging, overpacking, and securing drums and other containers. Emergency response actions are complete with the exception of waste disposal at a CERCLA-approved disposal facility.

The following sections summarize removal site evaluation information, which was gathered during emergency response actions and obtained from the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

a. Hoosier Wood Preservers, Inc.

Hoosier Wood Preservers, Inc. operated the site located at 3605 Farnsworth Street in Indianapolis, Indiana from 1969 to 2013. The company performed wood treatment by using pressure to inject preservative compounds into its wood products. The preservative compounds used by the company included chromated copper arsenate (CCA), copper azole, and borate. After the wood products were treated, a drip pad was used to place treated products while they dried. Historically, operators of the site also used creosote and pentachlorophenol to treat wood.

Hoosier Wood Preservers, Inc. administratively dissolved in 2012, and abandoned the site in 2013. 2008 TLA LLC purchased the site in February 2010 and is the current owner of the site.

The site is currently abandoned, although many of the structures that were used to support the wood preserving business are still present. The building containing the drip pad described above caught fire on May 25, 2015.

b. IDEM

In 2010, IDEM issued notices of violation to Hoosier Wood Preservers, Inc. for its failure to submit annual waste manifest reports (Administrative Record [AR] Original #12 and 13). On February 10, 2015, IDEM issued a Notice and Order of the Commissioner to Hoosier Wood Preservers, Inc. for failure to, among other things, properly close the drip pad as described in 40 C.F.R. § 265.111 (AR Original #15). On May 14, 2015, IDEM notified Hoosier Wood Preservers, Inc. that the Notice and Order of the Commissioner became enforceable on March 4, 2015 (AR Original #16).

On May 26, 2015, IDEM filed a report with the National Response Center (NRC # 1117591), and requested assistance from EPA (AR Original #18). IDEM requested that EPA assess environmental hazards on-site and secure hazardous materials abandoned on-site. Fire investigators noted drums and containers inside buildings at the site.

c. EPA

EPA On-Scene Coordinator (OSC) Shelly Lam, began emergency response actions on May 26, 2015. Those actions are documented in the July 7, 2015 Action Memorandum (AR Original #29) and in Pollution Reports (AR Original # 17, 19, 21-25).

Site conditions and limited samples collected during the emergency response indicated the need for additional assessment of soil and other materials on the ground surface. This section summarizes results from the Site Assessment conducted in June 2015. The Site Assessment Report documenting these findings is included in the administrative record (AR Update 1 #2).

EPA conducted a geophysical survey on June 15 – 16, 2015, and identified buried anomalies approximately 4 to 10 feet below ground surface (bgs), near the former treatment building. During emergency response actions, the former operator provided information that buried materials were present at the location of the former Treatment Building.

On June 18 – 19, 2015, EPA collected samples of soil, sediment, material on the ground surface, and ash from the former Drip Pad Building. During the emergency response, EPA collected a sample of particulate matter from the floor of the Wood Stacker Building.

EPA screened 25 locations with a x-ray fluorescence detector (XRF) and flame ionization detector (FID). EPA submitted samples from eight locations for metals analysis based on screening results. Additionally, EPA submitted two samples for analysis of volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC). However, VOC and SVOC results were below screening levels and, therefore, are not summarized below or in the attached table.

Analytical results for total metals and Toxicity Characteristic Leaching Procedure (TCLP), as established by the Resource Conservation and Recovery Act (RCRA) at 40 C.F.R. § 261.24, are summarized below and in Table 1 attached to this Action Memorandum. Laboratory analytical reports are included in the Administrative Record (AR Original #27, 28 and AR Update 1 #1). Results were compared to January 2015 Removal Management Levels (RML) for industrial soil and regulatory criteria for toxicity established in 40 C.F.R. § 261.24. Figure 3 shows sample locations.

- Sample HWP-Disposal-3 was collected during the emergency response from particulate matter on the floor of the Wood Stacker Building. In that sample, arsenic was detected at 26.9 milligrams per liter (mg/L), above the toxicity characteristic regulatory level of 5 mg/L.
- Sample HWP-SP01 was collected from material on the ground surface. In this sample, arsenic was detected at 162,000 mg/kg and at 68.3 mg/L. Arsenic was above the RML of 300 mg/kg and the toxicity characteristic regulatory level of 5 mg/L.
- Sample HWP-SP01A was collected from material on the ground surface. In this sample, arsenic was detected at 272,000 mg/kg, which is above the RML of 300 mg/kg.
- Sample HWP-SP2 was collected from ash from the former Drip Pad Building. In this sample, arsenic was detected at 4,510 mg/kg, which is above the RML of 300 mg/kg.
- Sample HWP B-1 (0-2') was collected from surface soil from the area of the former treatment building. In this sample, arsenic was detected at 2,460 mg/kg, which is above the RML of 300 mg/kg.

Two samples met the characteristic for toxicity for arsenic utilizing RCRA's TCLP test method. Three samples contained arsenic in excess of the RML for industrial soil. As stated above, arsenic is a hazardous substance as defined by Section 101(14) of CERCLA.

2. Physical location

The Hoosier Wood Preservers Superfund Site is located at 3605 Farnsworth Street in Indianapolis, Marion County, Indiana, 46241 (Figure 1). Site coordinates are 39.72241 degrees north latitude and 86.22123 degrees west longitude. The site is located approximately 3.5 miles southwest of downtown Indianapolis. The surrounding area is primarily industrial, although commercial properties are located to the south. Residential properties are within 200 feet to the east and northeast.

An Environmental Justice (EJ) analysis for the site is contained in Attachment 1. Screening of the surrounding area used Region 5's EJ Screen Tool. Region 5 has reviewed environmental and demographic data for the area surrounding the site at 3605 Farnsworth Street, and determined there is a high potential for EJ concerns at this location.

3. Site characteristics

The site is 7.75 acres in size and has ten buildings, including process buildings, storage buildings, a garage, and office. (Figure 2). The emergency response action was the first EPA removal action there.

The site is currently abandoned and unsecured. It is not fenced on all sides and there is evidence of trespassing, such as graffiti. In addition to the fire on May 25, 2015, there is evidence of spot fires in several buildings.

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

A release or threat of release of hazardous substances, pollutants, or contaminants is present at the site. EPA documented the presence of hazardous substances as defined by section 101(14) of CERCLA including arsenic above toxicity characteristic regulatory levels. Possible release mechanisms for arsenic in soil include fugitive dust generation; tracking of contaminated soil; and dermal contact with contaminated soil. Exposure routes include direct contact, ingestion or inhalation of arsenic particles in soil. Potential human receptors include trespassers, emergency response workers, future site workers, and nearby residents. There was evidence of trespassing at the site. Residential properties are located within 200 feet of the site.

5. NPL status

The site is not on the NPL.

6. Maps, pictures and other graphic representations

The following figures are attached to this memorandum.

- Figure 1 - Site Location Map
- Figure 2 - Site Layout Map
- Figure 3 - Sample Location Map

B. Other Actions to Date

a. Previous actions

As described above, IDEM issued several notices to the previous operator of the site, Hoosier Wood Preservers, Inc., for its failure to comply with certain environmental regulations at the site. IDEM also notified Hoosier Wood Preservers, Inc. of the opportunity to settle these violations and return to compliance. It is EPA's understanding that Hoosier Wood Preservers, Inc. has not responded to IDEM's notifications.

The current property owner commissioned a Phase II Subsurface Investigation in 2013 (AR Original #14). During the investigation, a limited number of soil and groundwater samples were collected. The report documented that arsenic, total chromium, hexavalent chromium, and

copper were present in the groundwater at the site above IDEM's Remediation Closure Guide (RCG) residential screening levels (RSLs). Arsenic was also detected above the RSL in site soil.

Previous actions also included EPA's emergency response actions, EPA's assessment of the need for additional time-critical response actions, and Wayne Township Fire Department's investigation into the cause of the fire at the site which occurred on May 25, 2015.

b. Current actions

EPA is planning to dispose of hazardous waste and materials staged during the emergency response in August 2015.

C. State and Local Authorities' Roles

IDEM filed a report with the NRC, and verbally requested assistance from EPA. Local and state authorities did not have resources to immediately mitigate the releases and threats of release at the site.

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 the NCP at 40 C.F.R. § 300.415(b)(2). These factors include, but are not limited to, the following:

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

Arsenic was present in soil, material on the ground, and ash at a maximum concentration of 272,000 mg/kg, above the RML of 300 mg/kg. Arsenic is a hazardous substance as defined by section 101(14) of CERCLA. Laboratory analytical results confirmed the presence of arsenic at concentrations exceeding relevant regulatory and screening levels.

Hazardous substances represent an actual or potential exposure threat to nearby human populations. Possible release mechanisms for arsenic in soil include fugitive dust generation; tracking of contaminated soil, ash, and material on the ground; and dermal contact with contaminated material. Exposure routes include direct contact, ingestion, and inhalation of arsenic particles. Potential human receptors include trespassers, emergency response workers, future site workers, and nearby residents. There was evidence of trespassing at the site. Residential properties are located within 200 feet of the site.

The Agency for Toxic Substances and Disease Registry (ATSDR) has studied toxicological effects of arsenic. Breathing high levels of inorganic arsenic can cause a sore throat or irritated lungs. Ingesting very high levels of arsenic can result in death. Exposure to lower levels can

cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet. Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the appearance of small "corns" or "warts" on the palms, soles, and torso. Skin contact with inorganic arsenic may cause redness and swelling. Several studies have shown that ingestion of inorganic arsenic can increase the risk of skin cancer and cancer in the liver, bladder, and lungs. Inhalation of inorganic arsenic can cause increased risk of lung cancer. The Department of Health and Human Services (DHHS) and the EPA have determined that inorganic arsenic is a known human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic arsenic is carcinogenic to humans (AR Original #7).

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

EPA documented that high levels of hazardous substances are present in soil. Arsenic was detected at a maximum concentration of 272,000 mg/kg, above the RML of 300 mg/kg. Additionally, arsenic was present above the toxicity characteristic regulatory level. Arsenic-contaminated soil may migrate via fugitive dust generation or tracking of contaminated soil, ash, and other material on the ground.

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

Weather conditions, such as high winds, could cause airborne dispersion of arsenic, contributing to an increased risk of migration of hazardous substances or pollutants.

The availability of other appropriate federal or State response mechanisms to respond to the release;

IDEM requested assistance from EPA. IDEM does not have resources to immediately mitigate the releases or threats of release at the site.

IV. ENDANGERMENT DETERMINATION

Given the conditions at the site, 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, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

This action memorandum requests a ceiling increase and change in the scope of the response to conduct the following actions to mitigate threats posed by the presence of hazardous substances at the site.

- a. Prepare site plans including a Work Plan, Quality Assurance Project Plan, site-specific Health and Safety Plan, and an Emergency Contingency Plan;
- b. Excavate approximately 4,000 tons of soil to a depth of two feet bgs, contaminated material from the floor of the Wood Stacker Building, and ash from the former Drip Pad Building;
- c. Investigate geophysical anomalies to an approximate depth of 10 feet bgs;
- d. Collect and analyze confirmation samples from the bottom of each excavation;
- e. Place a visible barrier at the bottom of each excavation;
- f. Replace excavated soil with clean soil;
- g. Treat contaminated material with Free Flow 100®, or a similar reagent, prior to disposal;
- h. Consolidate and package hazardous substances, pollutants and contaminants for transportation and off-site disposal in accordance with the EPA Off-Site Rule, 40 C.F.R. § 300.440; and
- i. 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.

The response actions described in this memorandum directly address actual or potential releases of hazardous substances on site, which may pose an imminent and substantial endangerment to public health, or welfare, or the environment. Actions will be conducted not inconsistent with the NCP. Planning for provision of post-removal site control will be initiated consistent with the NCP at 40 C.F.R § 300.415(l).

The threats posed by uncontrolled substances considered hazardous meet the criteria listed in the NCP at 40 C.F.R. § 300.415(b)(2), and the response actions proposed herein are consistent with any long-term remedial actions which may be required. 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 activities outlined above are summarized below. These activities will require an estimated 60 on-site working days to complete.

EPA anticipates that treating that contaminated material on-site prior to disposal will be more cost effective than direct disposal. Treating waste on-site prior to disposal should render the waste non-hazardous, and alleviate the need to dispose of waste at an out-of-state RCRA Subtitle C facility. On-site treatment versus direct disposal should result in a cost savings of approximately \$300,000.

Detailed cleanup contractor costs are presented in Attachment III.

2. Contribution to remedial performance

The proposed action should not impede future actions based on available information.

3. Engineering Evaluation/Cost Analysis (EE/CA)

Not Applicable

4. Applicable or relevant and appropriate requirements (ARAR)

On May 29, 2015, the OSC sent a letter to Rex Osborn at IDEM requesting the identification of any applicable State ARARs (AR Original #20). IDEM's June 8, 2015 ARARs notification letter is part of the administrative record (AR Original #26). The OSC determined that action-specific ARAR #4 and chemical-specific ARAR #8, as identified in IDEM's ARARs notification letter, will not likely apply to the time-critical removal action at the site.

The OSC also identified the following ARARs:

1. Hazardous substances, pollutants or contaminants removed off-site pursuant to this time-critical action for treatment, storage and disposal shall be treated, stored, or disposed at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 C.F.R. § 300.440.
2. The rules at 49 U.S.C. § 5101 *et seq.* regulate the transportation of hazardous waste and hazardous substances by aircraft, railcars, vessels, and motor vehicles to or from a site.

B. Removal Project Ceiling Estimate – Extramural Costs:

These costs reflect time-critical removal actions.

<u>Regional Removal Allowance Costs:</u>	
Total Cleanup Contractor Costs (Includes a 20% contingency)	\$1,483,883
<u>Other Extramural Costs Not Funded from the Regional Allowance</u>	
Total START, including multiplier costs	\$107,100
Subtotal, Extramural Costs	\$1,590,983
Extramural Costs Contingency (10% of Subtotal, Extramural Costs)	\$159,098
TOTAL REMOVAL ACTION PROJECT CEILING	\$1,750,081

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.

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

Given the conditions at the site, the nature of the hazardous substances documented at the site, and the potential exposure pathways to nearby populations described in Sections II and III above, actual or threatened release of hazardous substances from the site, if not addressed by implementing the emergency response actions described in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment. Delayed or no action concerning the remaining hazardous substances, pollutants and contaminants at the site 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 Confidential Enforcement Addendum.

The total EPA costs of this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$2,857,893¹.

$$(\$1,750,081 + \$64,800) + (57.47\% \times \$1,814,881) = \$2,857,893.$$

IX. RECOMMENDATION

This decision document represents the selected removal actions for the Hoosier Wood Preservers Site located in Indianapolis, Marion County, Indiana. 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 criteria for a time-critical removal action set forth in the NCP at 40 C.F.R. § 300.415(b)(2). The total project ceiling, if approved, will be \$1,750,081. Of this, as much as \$1,642,981 comes from the Regional removal allowance. I recommend your approval of the proposed removal action, ceiling increase, and change in the scope of response. You may indicate your decision by signing below.

APPROVE: *Richard C. Ke* DATE: 6-5-15
Director, Superfund Division

DISAPPROVE: _____ DATE: _____
Director, Superfund Division

Enforcement Addendum

Figure 1, Site Location Map
Figure 2, Site Layout Map
Figure 3, Sample Location Map
Table 1, Analytical Results

¹ Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States right to cost recovery.

Attachments:

- I. Environmental Justice Analysis
- II. Administrative Record Index
- III. Detailed Cleanup Contractor Cost Estimate
- IV. Independent Government Cost Estimate

cc: Brian Schlieger, U.S. EPA, 5104-A
Lindy Nelson, U.S. DOI, w/o Enf. Addendum (Lindy_Nelson@ios.doi.gov)
Rex Osborn, IDEM w/o Enf. Addendum (rosborn@idem.in.gov)

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**NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**

ENFORCEMENT ADDENDUM

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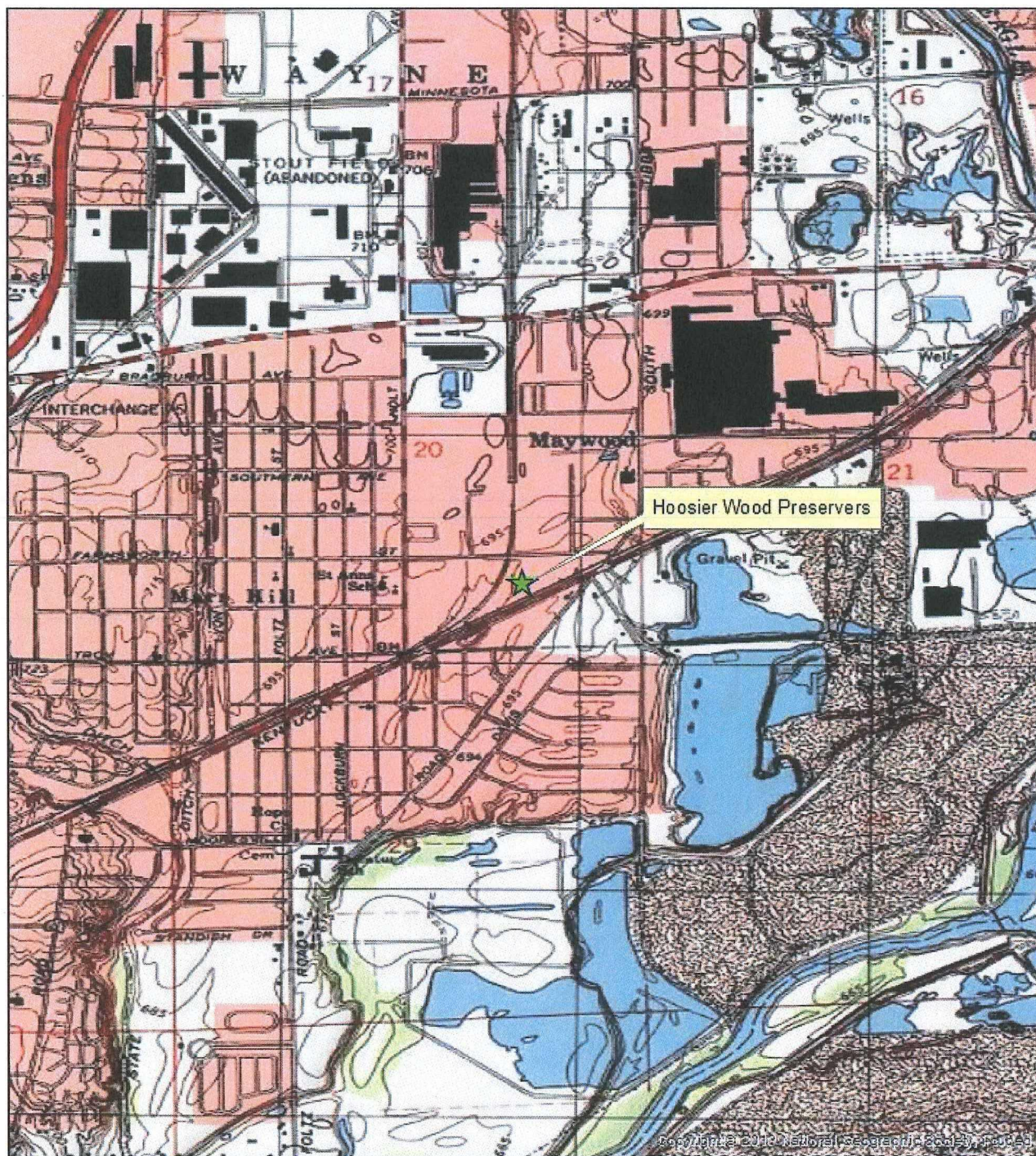
ENFORCEMENT CONFIDENTIAL

NOT SUBJECT TO DISCOVERY

FOIA EXEMPT

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION



EPA United States
Environmental Protection
Agency

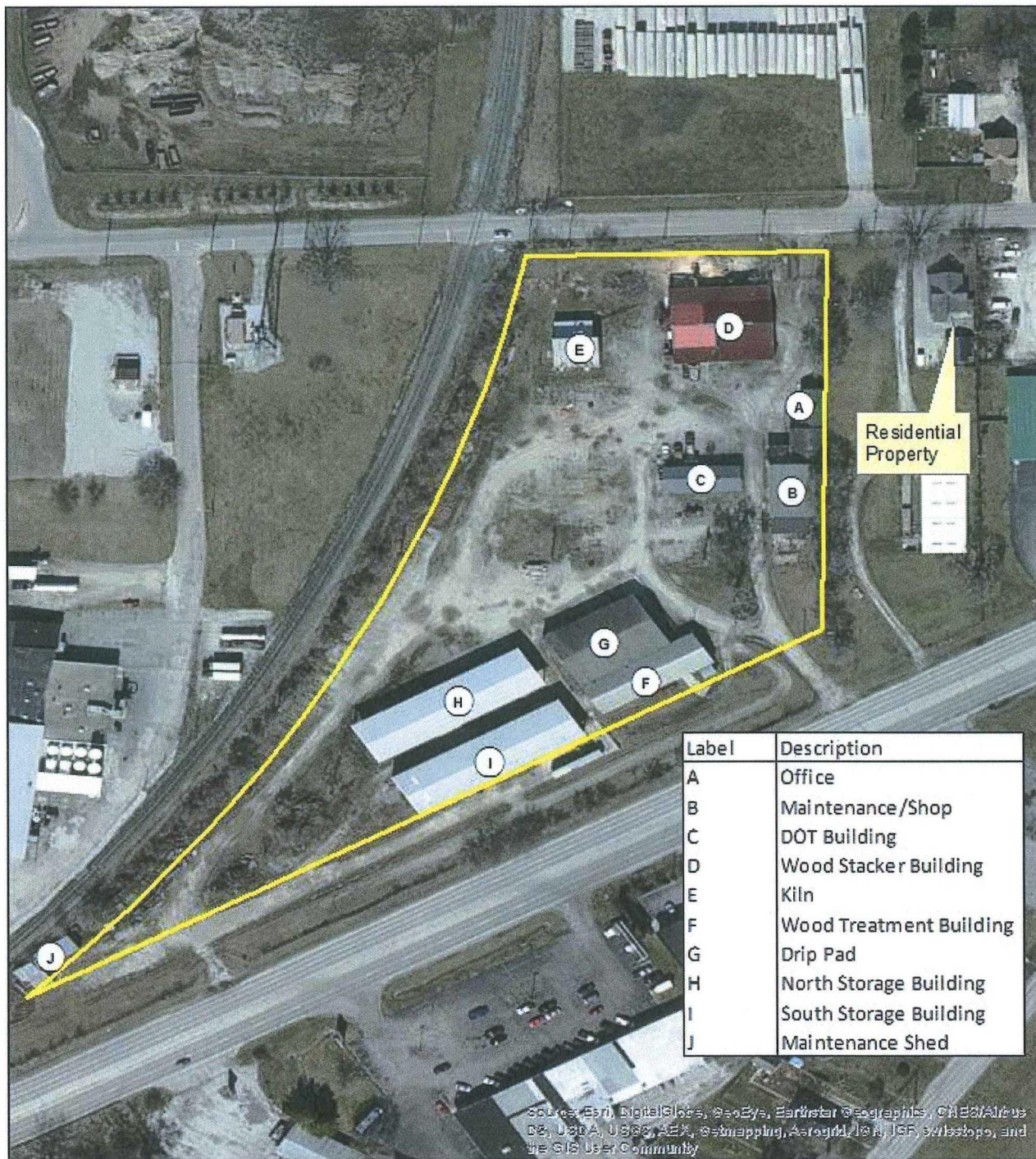
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★ Site Location

FIGURE 1
SITE LOCATION MAP
HOOSIER WOOD PRESERVERS
3605 FARNSWORTH STREET
INDIANAPOLIS, INDIANA



0 0.25 0.5
Miles



Legend



Site

FIGURE 2
SITE LAYOUT MAP
HOOSIER WOOD PRESERVERS
3605 FARNSWORTH STREET
INDIANAPOLIS, INDIANA



0 100 200 300 400 Feet



Legend

- Above Screening Level
- Below Screening Level
- Site

FIGURE 3
SAMPLE LOCATION MAP
HOOSIER WOOD PRESERVERS
3605 FARNSWORTH STREET
INDIANAPOLIS, INDIANA



0 50 100 150 200
 Feet

TABLE 1
ANALYTICAL RESULTS
HOOSIER WOOD PRESERVERS

Sample ID		HWP-Disposal-3	HWP-SP01	HWP-SP1A	HWP-SP2	HWP B-1 (0-2)
Sampled Material		Wood Stacker	Green material	Green material	Ash from Drip	Surface soil
Regulatory/Screening Limit		Floor Material	on ground	on ground	Pad Building	
Total Metals (mg/kg)^{1,2}						
Arsenic	300	NS ³	162,000 ⁴	272,000	4,510	2,460
Barium	650,000	NS	226	347	39.3	56.2
Cadmium	3,000	NS	407	599	8.8	2.6
Chromium	5,300,000	NS	90,800	133,000	4,490	1,420
Lead	800	NS	615	599	17.1	62.9
Selenium	18,000	NS	19.6	55.4	0.8	<0.067
Silver	18,000	NS	8.3	16.9	<0.48	0.25
Mercury	120	NS	11	14.7	<0.0062	0.1
Hexavalent Chromium	630	NS	NS	12.7	<2.7	<1.1
TCLP⁵ Metals (mg/L)^{6,7}						
Arsenic	5	26.9	68.3	NS	NS	NS
Cadmium	1	0.14	0.19	NS	NS	NS
Chromium	5	0.43	0.72	NS	NS	NS

TABLE 1
ANALYTICAL RESULTS
HOOSIER WOOD PRESERVERS

Sample ID		HWP B-2 (0-4)	HWP B-7 (0-2)	DUP-1	HWP B-9 (0-2)	HWP-SUMP
Sampled Material		Surface soil	Surface soil	Surface Soil - Duplicate of HWP B-7 (0-2)	Surface soil	Sediment from drainage sump
Regulatory/Screening Limit						
Total Metals (mg/kg) ⁸						
Arsenic	300	227	46.3	155	28.1	288
Barium	650,000	53.3	69.1	74.8	62.6	68
Cadmium	3,000	0.52	0.31	0.54	0.076	2.2
Chromium	5,300,000	148	72.5	178	36	256
Lead	800	22.5	48.6	141	12.4	74.9
Selenium	18,000	<0.066	<0.068	<0.066	<0.068	<0.1
Silver	18,000	0.096	0.053	<0.019	0.066	<0.029
Mercury	120	0.12	0.14	0.025	0.046	0.1
Hexavalent Chromium	630	<1.1	<1.1	<1.1	<1.1	<1.7
TCLP Metals (mg/L)						
Arsenic	5	NS	NS	NS	NS	NS
Cadmium	1	NS	NS	NS	NS	NS
Chromium	5	NS	NS	NS	NS	NS

Notes:

1. mg/kg - milligrams per kilogram
2. Screening levels are the January 2015 Removal Management Levels for industrial soil.
3. NS - Not sampled
4. Bolded results exceed screening or regulatory levels.
5. TCLP - Toxicity Characteristic Leaching Procedure
6. mg/L - milligrams per liter
7. Regulatory limits are established in 40 CFR 261.24.

ATTACHMENT I

U.S. ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL JUSTICE ANALYSIS
FOR
HOOSIER WOOD PRESERVERS SITE
INDIANAPOLIS, MARION COUNTY, INDIANA

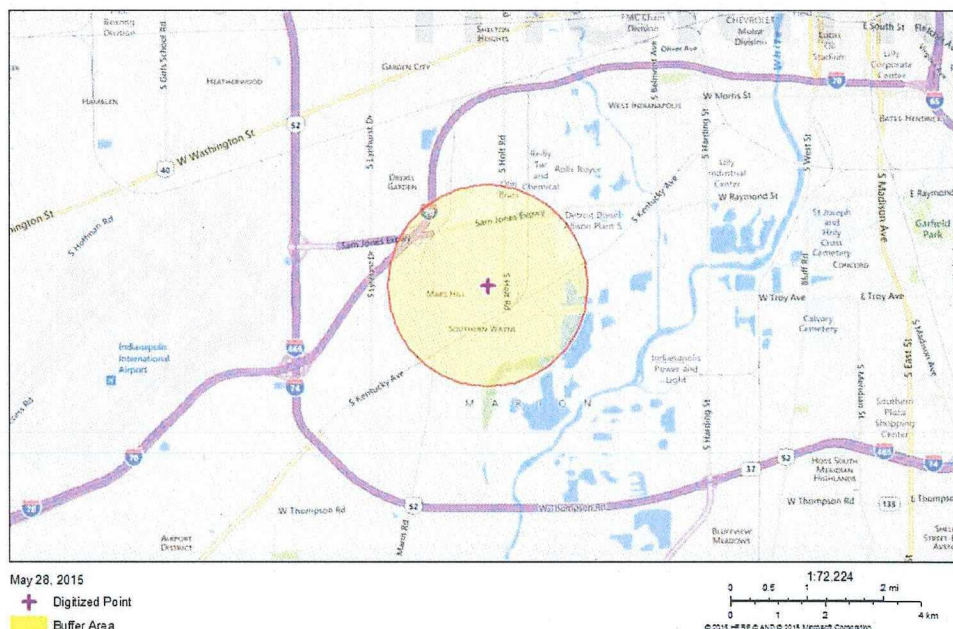
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1 mile Ring Centered at 39.724274,-86.228435
 INDIANA, EPA Region 5
 Approximate Population: 8976



Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	79	76	62
EJ Index for Ozone	78	76	61
EJ Index for NATA Diesel PM	81	77	65
EJ Index for NATA Air Toxics Cancer Risk	79	76	62
EJ Index for NATA Respiratory Hazard Index	80	77	62
EJ Index for NATA Neurological Hazard Index	80	78	65
EJ Index for Traffic Proximity and Volume	78	75	60
EJ Index for Lead Paint Indicator	81	78	70
EJ Index for NPL Proximity	84	87	78
EJ Index for RMP Proximity	78	76	62
EJ Index for TSDF Proximity	84	81	71
EJ Index for Water Discharger Proximity	81	79	68

This report shows environmental, demographic, and EJ indicator values. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



Selected Variables	Raw data	State Average	%ile in State	EPA Region Average	%ile in EPA Region	USA Average	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	12.3	11.3	94	10.8	91	9.78	95
Ozone (ppb)	47.5	46.5	59	44.4	80	46.1	56
NATA Diesel PM ($\mu\text{g}/\text{m}^3$) [*]	0.607	0.341	85	0.712	50-60th	0.824	50-60th
NATA Air Toxics Cancer Risk (risk per MM) [*]	46	36	87	42	60-70th	49	50-60th
NATA Respiratory Hazard Index [*]	1.8	1.1	88	1.5	70-80th	2.3	50-60th
NATA Neurological Hazard Index [*]	0.099	0.059	90	0.067	80-90th	0.063	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	8.6	24	44	69	25	110	19
Lead Paint Indicator (% pre-1980s housing)	0.58	0.37	77	0.4	71	0.3	79
NPL Proximity (site count/km distance)	0.34	0.11	94	0.086	96	0.096	95
RMP Proximity (facility count/km distance)	0.17	0.35	50	0.33	52	0.31	57
TSDF Proximity (facility count/km distance)	0.13	0.042	93	0.051	92	0.054	91
Water Discharger Proximity (count/km)	0.72	0.26	93	0.23	94	0.25	93
Demographic Indicators							
Demographic Index	34%	26%	76	28%	73	35%	58
Minority Population	13%	19%	58	24%	53	36%	32
Low Income Population	55%	34%	83	32%	84	34%	82
Linguistically Isolated Population	2%	2%	73	2%	69	5%	54
Population with Less Than High School Education	30%	13%	93	12%	93	14%	87
Population under Age 5	9%	7%	73	6%	76	7%	74
Population over Age 64	11%	13%	42	13%	41	13%	46

^{*}The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at <http://www.epa.gov/ttn/atw/natamain/index.html>.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

ATTACHMENT II

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION**

**ADMINISTRATIVE RECORD
FOR THE
HOOSIER WOOD PRESERVERS SITE
INDIANAPOLIS, MARION COUNTY, INDIANA**

**ORIGINAL
JUNE, 2015**

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	918607	No date	EPA	File	Technical Factsheet on 2, 4-D	4
2	918608	9/1/95	ATSDR	Public	ToxFAQs Fact Sheet - 2 Butanone	2
3	918617	9/1/97	ATSDR	Public	ToxFAQs Fact Sheet - Tetrachloroethylene	2
4	918614	3/1/01	ATSDR	Public	ToxFAQs Fact Sheet - Metallic Mercury	3
5	918615	9/1/01	ATSDR	Public	ToxFAQs Fact Sheet - Pentachlorophenol	2
6	918616	9/1/03	ATSDR	Public	ToxFAQs Fact Sheet - Selenium	2
7	918609	8/1/07	ATSDR	Public	ToxFAQs Fact Sheet - Arsenic	2
8	918610	8/1/07	ATSDR	Public	ToxFAQs Fact Sheet - Benzene	2
9	918613	8/1/07	ATSDR	Public	ToxFAQs Fact Sheet - Lead	2
10	918611	9/1/08	ATSDR	Public	ToxFAQs Fact Sheet - Cadmium	2
11	918612	9/1/08	ATSDR	Public	ToxFAQs Fact Sheet - Chromium	2
12	918601	8/19/10	Lepter, B., IDEM	Hamather, J., Hoosier Wood Preservers, Inc.	Letter re: Notice of Violation and Proposed Agreed Order	10
13	918600	1/8/12	Kizer, B., IDEM	Hamather, M., Hoosier Wood Preservers, Inc.	Letter re: Notice of Final Settlement Offer	9

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
14	918599	9/12/13	Watkins, J., Environmental Services Associates, LLC	Mitchell, L., TLA	Phase II Subsurface Investigation	32
15	918605	2/10/15	Easterly, T., IDEM	Hamather, M., Hoosier Wood Preservers, Inc.	Notice and Order of the Commissioner of the Department of Environmental Management	5
16	918604	5/14/15	Johnson, N., U.S. EPA	Hamather, M., Hoosier Wood Preservers, Inc.	Letter re: Notice and Order of the Commissioner Effective Date	1
17	457277	5/26/15	Lam, S., U.S. EPA	Distribution List	Pollution Report (POLREP) # 1 - Initial	8
18	918606	5/26/15	NRC	Public	Incident Report # 1117591	3
19	457278	5/28/15	Lam, S., U.S. EPA	Distribution List	Pollution Report (POLREP) # 2 - Progress	12
20	918603	5/29/15	Lam, S., U.S. EPA	Osborn, R., IDEM	Letter re: Request for Applicable or Relevant and Appropriate Requirements (ARARs)	2
21	457279	5/30/15	Lam, S., U.S. EPA	Distribution List	Pollution Report (POLREP) # 3 - Progress	12
22	457280	6/1/15	Lam, S., U.S. EPA	Distribution List	Pollution Report (POLREP) # 4 - Progress	12
23	457281	6/2/15	Lam, S., U.S. EPA	Distribution List	Pollution Report (POLREP) # 5 - Progress	14
24	457282	6/3/15	Lam, S., U.S. EPA	Distribution List	Pollution Report (POLREP) # 6 - Progress	12
25	457283	6/5/15	Lam, S., U.S. EPA	Distribution List	Pollution Report (POLREP) # 7 - Progress	14
26	918602	6/8/15	Hause, A., IDEM	Lam, S., U.S. EPA	Letter re: Applicable or Relevant and Appropriate Requirements (ARARs)	3
27	919170	6/12/15	Hunt, K., Pace Analytical	Roski, A., Environmental Restoration	Analytical Lab Results for Project No. 50120424	29
28	919169	6/17/15	Hunt, K., Pace Analytical	Roski, A., Environmental Restoration	Analytical Lab Results for Project No. 50120100	109

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
29	-	-	Lam, S., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum re: Request for a Time-Critical Removal Action at the Hoosier Wood Preservers Site (<i>PENDING</i>)	-

ATTACHMENT II

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION**

**ADMINISTRATIVE RECORD
FOR THE
HOOSIER WOOD PRESERVERS SITE
INDIANAPOLIS, MARION COUNTY, INDIANA**

**UPDATE 1
JULY, 2015**

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	919214	7/10/15	CT Laboratories	U.S. EPA	Laboratory Analytical Report	172
2	-	-	START	U.S. EPA	Site Assessment Report (PENDING)	-
3	-	-	Lam, S., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum re: Request for Approval and Funding for a Time-Critical Removal Action at the Hoosier Wood Preservers Site (PENDING)	-

ATTACHMENT III

DETAILED CLEANUP CONTRACTOR ESTIMATE

HAS BEEN REDACTED – ONE PAGE

ATTACHMENT IV

INDEPENDENT GOVERNMENT COST ESTIMATE

HAS BEEN REDACTED – THREE PAGES

NOT RELEVANT TO SELECTION

OF REMOVAL ACTION