

SECOND EXPLANATION OF SIGNIFICANT DIFFERENCES

USS LEAD SUPERFUND SITE

ZONE 1

EAST CHICAGO, INDIANA

EPA SITE ID: IND047030226

PREPARED BY:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5



September 2, 2022

U.S. Environmental Protection Agency

Region 5

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Executive Summary

The U.S. Environmental Protection Agency issued a Record of Decision Amendment (“ROD Amendment”) on March 24, 2020, after public notice and a thorough review of all received public comments. The ROD Amendment provided for a cleanup to residential standards of an approximately 50-acre area known as modified Zone 1, or a contingent remedy that allows for a cleanup to commercial/industrial standards if two conditions are met.

The two conditions that must be met to implement the contingent remedy, Alternative 4A, are (1) a zoning change for modified Zone 1 from residential to commercial/industrial; and (2) the transfer of titles to the properties that comprise modified Zone 1 from the City and the East Chicago Housing Authority (ECHA) to an entity who intends to develop the property for commercial/industrial use. The ROD Amendment provided EPA would issue an Explanation of Significant Differences (ESD) if the two conditions are met to confirm the change in remedy from Modified Alternative 4B (residential) to Alternative 4A (commercial/industrial).

On May 26, 2020, the City of East Chicago Common Council met the first condition when it changed the zoning designation for modified Zone 1 from residential to light industrial.

On August 25, 2022, Industrial Development Advantage of East Chicago, LLC (IDA) met the second condition by taking title to virtually all of modified Zone 1.¹ IDA has entered into a Prospective Purchaser Agreement (PPA) with EPA, the State of Indiana, and the U.S. Department of Justice pursuant to which it has agreed to implement the contingent remedy, Alternative 4A (commercial/industrial), for modified Zone 1. EPA, DOJ, the State, and certain potentially responsible parties have entered into an Administrative Settlement Agreement and Order on Consent (“ASAOC”), which, among other things, provides financial assurance for the cleanup IDA is performing. The ASAOC becomes effective only after the PPA becomes effective. The PPA becomes effective upon the issuance of this ESD.

Because the two conditions precedent for changing the remedy under the ROD Amendment have been met and execution of the ESD will make effective the agreements set forth in the PPA and ASAOC enabling the cleanup of modified Zone 1 to proceed, I am today signing this ESD.

¹ The City retains title to a small portion of modified Zone 1, which has been sampled and shown not to require cleanup.

Explanation of Significant Differences

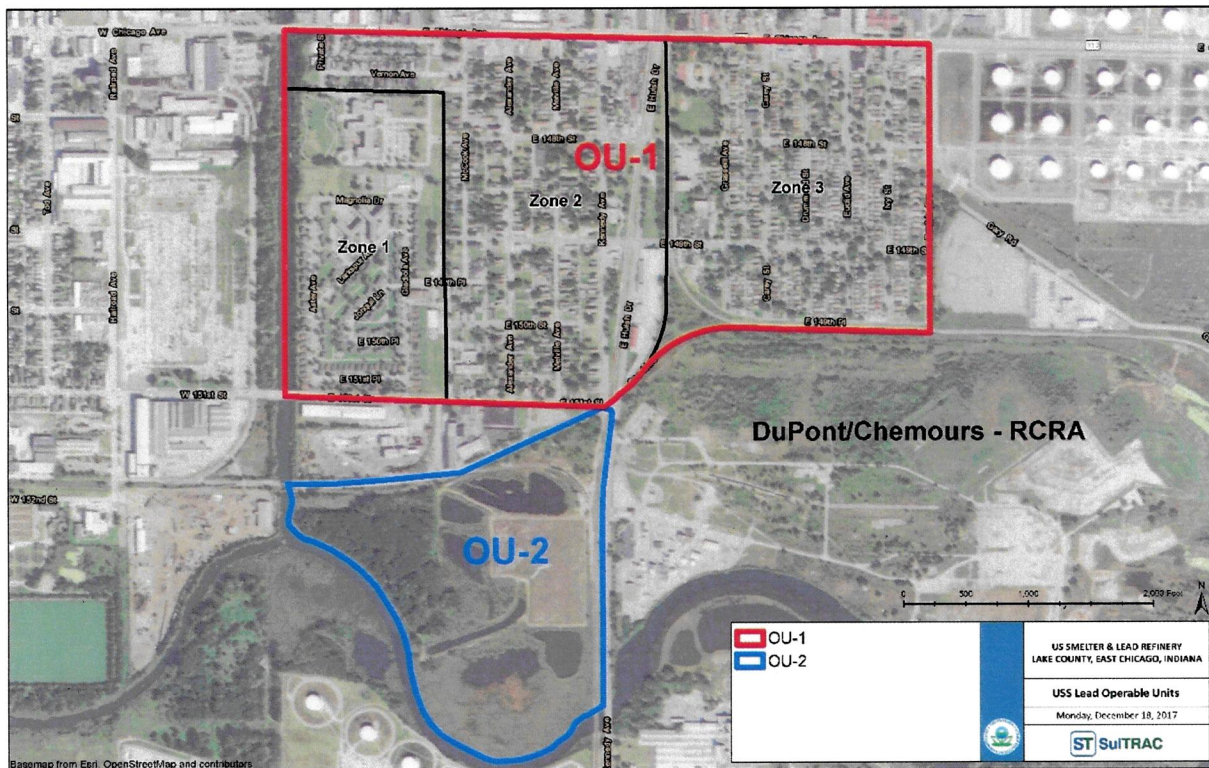
USS Lead Superfund Site – Zone 1

I. Introduction

A. Site Name and Location

The U.S. Smelter and Lead Refinery, Inc. Superfund Site (the “Site”) is located in East Chicago, Indiana. EPA has divided the Site into two Operable Units. Operable Unit 1 (OU1) consists of contaminated soils located in a predominantly residential neighborhood north of the former U.S. Smelter and Lead Refinery (“USS Lead”) facility. The neighborhood is bounded on the north by East Chicago Avenue, on the east by Parrish Avenue, on the south by East 151st Street/149th Place, and on the west by the Indiana Harbor Canal. EPA has divided OU1 into Zones 1, 2, and 3. See Figure 1. Operable Unit 2 (OU2) includes the surface and subsurface of the 79-acre former USS Lead facility as well as groundwater beneath both OU1 and OU2. EPA is currently overseeing a Remedial Investigation/Feasibility Study for OU2.

Figure 1: Site Map



In 2016, EPA, along with the settling defendants under a 2014 consent decree, began field work to implement the remedy outlined in the 2012 Record of Decision (“2012 ROD”). Under the terms of the 2014 consent decree and a series of administrative orders, work required under the 2012 ROD has been performed in Zones 2 and 3. EPA has overseen the remediation of 803 homes, several public parks, a portion of a utility corridor, and the Carrie Gosch School yard. Concurrently with the cleanup work, EPA conducted a focused feasibility study to determine how to address contamination remaining in Zone 1 following the demolition of the West Calumet

Housing Complex (WCHC). On March 24, 2020, EPA issued the ROD Amendment, which sets forth an amended remedy and a contingent remedy for a modified Zone 1. See Figure 2. What remains of Zone 1 includes the former WCHC and Goodman Park, and the remaining portion of a utility corridor located along the eastern boundary of OU1. For purposes of this document, these three areas will be collectively referred to as “modified Zone 1.” EPA refers to this area as “modified Zone 1” because the ROD Amendment modifies the definition of the term “Zone 1” contained in the 2014 consent decree. The definition of “Zone 1” in the 2014 consent decree consisted of the properties identified above and the Carrie Gosch School. The Carrie Gosch School is governed by the 2012 ROD and not within the area defined as “modified Zone 1” in the ROD Amendment. The cleanup of Carrie Gosch School has been completed by certain potentially responsible parties with EPA oversight.

Figure 2: Map of Modified Zone 1



B. Identification of Lead and Support Agencies

EPA is the lead agency for the Site and the Indiana Department of Environmental Management (IDEM) is the support agency.

C. Statement of Purpose

This ESD sets forth the basis for confirming that the two conditions for changing the remedy from Modified Alternative 4B (residential) to Alternative 4A (commercial/industrial) have been met, consistent with a process set forth in the ROD Amendment.

D. Statutory Basis for Issuance of the ESD

Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at Code of Federal Regulations (C.F.R.), Title 40, § 300.435(c)(2)(i) establish procedures for explaining, documenting, and informing the public of significant changes to a remedy that occur after EPA has signed a Record of Decision. EPA is required to issue an ESD when the remedial action to be taken differs significantly from the remedy selected in the Record of Decision but does not fundamentally alter the selected remedy with respect to scope, performance, or cost.

E. Summary of Circumstances Necessitating this ESD

The ROD Amendment required a remedy consistent with the then-current residential zoning of modified Zone 1: Modified Alternative 4B (Excavation to 24" plus Institutional Controls (ICs)). However, the ROD Amendment provides that, if two conditions are met, then EPA will change the selected remedy from Modified Alternative 4B to Alternative 4A (Excavation to 12" plus ICs). The first condition is that the City must change the zoning designation of modified Zone 1 from residential to a category authorizing commercial/industrial development. The second condition is that City and ECHA must convey title to an entity that intends to redevelop modified Zone 1 for commercial/industrial use.

These two conditions have been met. On May 26, 2020, the City of East Chicago Common Council approved a change to the zoning designation for modified Zone 1 from residential to light industrial. On August 25, 2022, IDA acquired title to the parcels that comprise modified Zone 1 from the ECHA.

The contingent remedy was included in the Proposed Plan, subsequently adopted in the ROD Amendment, and was therefore already subject to public comments. However, in the ROD Amendment, EPA committed to issue an ESD if the conditions for the contingent remedy were met and the Agency decided to adopt a commercial/industrial remedy in modified Zone 1.

F. Agency Determination

In consultation with IDEM, EPA has reviewed the proposed change in the selected remedy from Modified Alternative 4B to Alternative 4A. The review has considered the standards set forth in CERCLA and the NCP as well as relevant EPA policies and guidance. EPA has determined that the differences between implementing Modified Alternative 4B and implementing Alternative 4A are significant, but that the changes do not fundamentally alter the overall action for the Site. The ROD Amendment provided for the implementation of Alternative 4A if the pertinent conditions were met. Like Modified Alternative 4B, Alternative 4A calls for the excavation and off-site

disposal of contaminated soils, the placement of a soil barrier over contaminated soils that remain on-site, and the implementation of ICs to ensure the remedy's long-term protectiveness. Alternative 4A complies with the NCP and the statutory requirements of CERCLA. Alternative 4A is protective of human health and the environment because it reduces the volume of contaminated soil and prevents persons from ingesting, inhaling, or coming into direct contact with contaminated soils that remain in place. For these reasons, it is appropriate for EPA to issue an ESD to document the changed circumstances resulting in this change in remedy and not necessary for EPA to amend the ROD Amendment.

G. Administrative Record

In accordance with the NCP at 40 C.F.R. §§ 300.435(c) and 300.825(a)(2), this ESD and supporting documentation will become part of the Administrative Record for the Site.

Though some restrictions may apply because of the current public health conditions caused by the prevalence of COVID-19, the Administrative Record file and other relevant reports and documents are available for public review Monday through Friday between the hours of 8:00 a.m. and 4:00 p.m. at the EPA Region 5 office at the following location:

EPA Region 5 Records Center
Ralph H. Metcalfe Federal Building
77 West Jackson Boulevard – 7th Floor
Chicago, IL 60604

Go to <https://www.epa.gov/aboutepa/covid-19-safe-federal-workplace> for information on the current public health restrictions or requirements for visitors to the Ralph H. Metcalfe Federal Building. Subject to possible restrictions imposed to protect public health, the Administrative Record is also available at the following locations:

East Chicago Public Library
2401 East Columbus Drive
East Chicago, IN 46312

Robert A. Pastrick Library
1008 West Chicago Avenue
East Chicago, IN 46312

Finally, the Administrative Record is available online at: <https://www.epa.gov/uss-lead-superfund-site>.

II. Site History, Contamination, and Selected Remedy

A. Site History

Modified Zone 1 lies immediately north of the USS Lead facility and consists of Goodman Park, the former WCHC, and a utility right of way. Between 1912 and 1946, much of modified Zone 1 was owned by the Anaconda Copper Mining Company (“Anaconda”). Anaconda operated several lead processing facilities within modified Zone 1. In 1946, Anaconda sold the facility to Eagle-Picher Company. Eagle-Picher Company appears to have continued operations at the Anaconda facility until at least 1952, though the extent of its operations is largely unknown. In the late 1960s, the Anaconda facility was demolished. In the early 1970s, the ECHA oversaw the construction of the WCHC within the footprint of the former Anaconda facility.

From 1906 until 1985, USS Lead Refinery, Inc. operated a facility at 5300 Kennedy Avenue, East Chicago, Indiana, south of modified Zone 1 and Zone 2. Slag from the USS Lead operations was routinely placed in piles on the ground and left exposed to the elements. Lead and arsenic contaminated particulate matter were released into the environment through stacks as fumes from operations, dust from the baghouses, and dust from lead waste piles (e.g., slag and baghouse dust).

During roughly this same period, E.I. du Pont de Nemours and Company (“DuPont”) operated a facility south and east of Zone 3 of OU1. Processes used by DuPont generated wastes that contained lead and arsenic. Other facilities in the area also generated wastes that contained lead and arsenic, which may have come to be located within the USS Lead Superfund Site. For a more complete discussion of the Site History and Contamination, please see Section II of the ROD Amendment.

In 2007, EPA’s Superfund program performed limited sampling in OU1. The sampling identified certain residences with concentrations of lead in soils greater than 1,200 parts per million (ppm). In 2008 and 2011, EPA removed contaminated soils from 29 residential properties in Zones 1, 2, and 3 at which concentrations of lead in soils exceeded 1,200 ppm. In April 2009, EPA placed the Site on the National Priorities List (NPL). Inclusion on the NPL meant the Site was eligible for federal funding for remedial response actions. Beginning in June 2009 and concluding in June 2012, EPA performed a remedial investigation of OU1. EPA signed the 2012 ROD on November 30, 2012.

Consistent with the 2012 ROD and using funds provided by two potentially responsible parties pursuant to a consent decree entered by the United States District Court, Northern District of Indiana, EPA began remedial design work for Zone 1 and Zone 3. From November 2014 to April 2016, EPA collected soil samples in Zone 1 and Zone 3 to determine the extent of contamination in the yards of each individual property.

In July 2016, after reviewing sampling results from Zone 1, the City sent a letter to WCHC residents recommending that they relocate from the WCHC. Shortly thereafter, ECHA applied to HUD for approval and funding to demolish the WCHC and relocate residents. ECHA completed demolition of WCHC in the fall of 2018. The demolition of the WCHC changed conditions on the ground and, in response to these changes, EPA began to reevaluate the remedy for modified Zone 1.

Following the decision by ECHA to demolish the WCHC, EPA sought to determine the future intended use of modified Zone 1. On August 18, 2016, EPA wrote the City and asked how the City and ECHA intended to use Zone 1. In a letter dated September 10, 2018, the City advised EPA that it anticipated “providing industrial and commercial opportunities in Zone 1 and quality housing in Zone 2-3.” To account for the possible change in future use of modified Zone 1, EPA issued on November 11, 2018, a Proposed Plan for modified Zone 1, which provided EPA with the flexibility to choose a remedy that reflected and supported the likely future land use, whether residential or commercial/industrial.

Concurrent with the issuance of the Proposed Plan, EPA opened the Proposed Plan for public comment. On November 29, 2018, EPA held a public meeting in East Chicago to discuss the Proposed Plan. At the public meeting, EPA told the public that while the remedy set forth in the Proposed Plan—Alternative 4B—requires cleanup of soils to residential standards, if the future use of modified Zone 1 changed, EPA would select a different remedy—Alternative 4A—that required cleanup of soils to commercial/industrial standards.

On January 14, 2019, the Lake County IN Economic Alliance (LCEA) submitted written comments on the Proposed Plan. The LCEA stated that it, “strongly supports a cleanup plan that provides flexibility to allow cleanup standards consistent with the commercial/industrial use.” Throughout 2019, the LCEA sent correspondence to EPA alerting EPA to the interest shown by private parties in developing modified Zone 1 for commercial/industrial purposes. These communications are included in the Administrative Record.

On November 15, 2019, the City entered into a Letter of Intent (LOI) with IDA. The LOI outlined a proposal to acquire most of Zone 1 from the City and ECHA. The LCEA provided a copy of the LOI to EPA shortly after November 15, 2019.

On December 16, 2019, the City wrote EPA and acknowledged that it had signed the LOI and that the LOI envisioned development of Zone 1 for a logistics and distribution campus and warehousing complex. The letter noted, “None of the property will be used for residential purposes.” On March 24, 2020, EPA signed the ROD Amendment with a contingent remedy: if the future use remained residential, the remedy would be Modified Alternative 4B, but if the future use shifted to commercial/industrial, EPA would issue an ESD to select Alternative 4A.

B. Contaminants of Concern

The contaminants of concern are lead and arsenic in soil. The soil cleanup criteria are different depending upon the end use. The residential soil cleanup criteria are as follows: 400 ppm for lead and 26 ppm for arsenic. The cleanup criteria for a commercial/industrial future use are as follows: 800 ppm for lead and 26 ppm for arsenic. The commercial/industrial soil cleanup criteria for lead is higher than the criteria for residential soil because a person is less likely to ingest, inhale, or come into prolonged direct contact with lead if the end use is commercial/industrial rather than residential.

C. Selected Remedy

In March 2020, when EPA issued the ROD Amendment, the zoning designation for modified Zone 1 was residential. Accordingly, the selected remedy was Modified Alternative 4B.² Based on the change in zoning from residential to light industrial on May 26, 2020 and the change in ownership from the ECHA to IDA on August 25, 2022, Alternative 4A, the contingent remedy set forth in the ROD Amendment, has become the selected remedy.

Alternative 4A consists of the following:

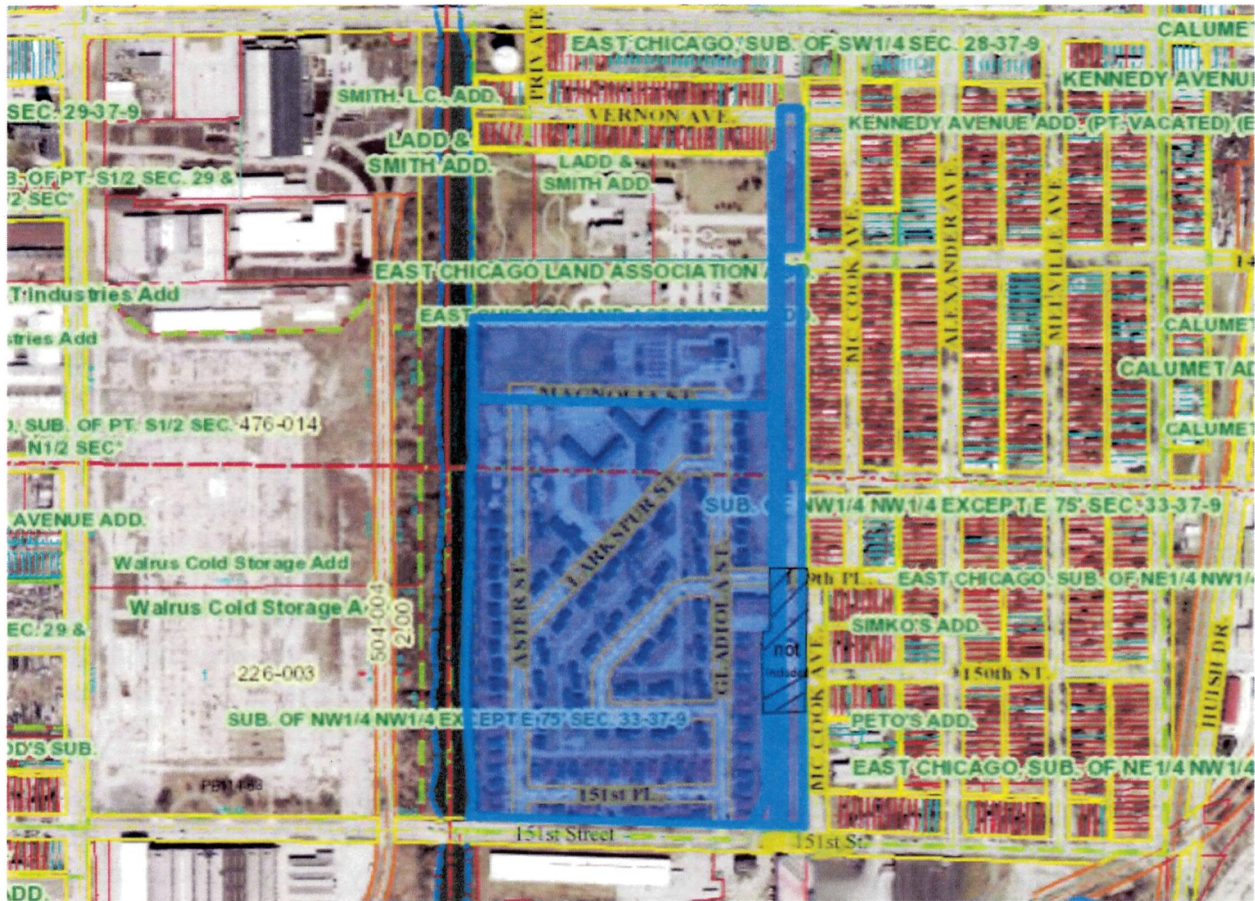
² For a detailed description of Modified Alternative 4B, please see the ROD Amendment.

Alternative 4A – 12” Industrial/Commercial Excavation and Disposal	
Estimated Volume of Material Excavated:	81,473 yd ³
Estimated Capital Cost:	\$12,485,122
Estimated Cost of Groundwater ICs	\$21,000
Estimated O&M Cost:	\$360,206
Estimated Contingency (10%):	\$1,272,007
Estimated Present Worth:	\$14,150,000
Estimated Construction Time:	5 months

Alternative 4A requires excavation of contaminated soils that exceed the industrial/commercial Remedial Action Levels (800 ppm for lead and 26 ppm for arsenic) down to a maximum depth of 12 inches below ground surface. A visual barrier will be installed to alert persons that they may encounter contaminated soils below the barrier. Excavated areas will be backfilled with clean material to grade and restored with sod or seed unless construction of an impermeable surface will commence over the area within 90 days of restoration to grade. Contaminated soils will be disposed of at an off-site Subtitle D or Subtitle C landfill, as appropriate. Off-site treatment may be used to chemically stabilize some of the soils to meet disposal requirements. Alternative 4A will require the owner of parcels within modified Zone 1 intended for commercial/industrial development to record an Environmental Restrictive Covenant (ERC) consistent with Indiana law limiting future land use to commercial/industrial purposes.

A municipal maintenance shed sits on a small parcel within modified Zone 1 that is owned by the City. See Figure 3. IDA did not purchase this parcel and it is not subject to the cleanup requirements of the PPA. However, the parcel was included in the City’s May 2020 rezoning and is now zoned as light industrial. EPA has determined that the future use of this parcel is commercial/industrial, consistent with the rezoning, and applying Alternative 4A is consistent with the anticipated future use of this parcel. EPA has therefore decided to include this property within modified Zone 1 for purposes of this ESD. EPA analyzed soil sampling data from the parcel and determined that the top 12 inches of soils do not exceed cleanup criteria under Alternative 4A. Accordingly, the parcel does not need to be remediated under the cleanup requirements of Alternative 4A. EPA may require institutional controls to limit future land use to commercial/industrial purposes consistent with Alternative 4A.

Figure 3: Map of area purchased by IDA, which depicts (in black outline with black hashmarks) the parcel that will remain owned by the City and used as the site of a municipal maintenance shed.



III. Basis for ESD

The change in the zoning for modified Zone 1 from residential to light industrial coupled with the change in ownership of modified Zone 1 has triggered the contingency within the ROD Amendment. Consequently, the conditions have been met to change the selected remedy from Modified Alternative 4B to Alternative 4A.

This ESD is not amending the Remedial Action Objective (RAO) for the Site. The RAO has remained consistent throughout the process and was embodied in the 2012 ROD and the ROD Amendment. The RAO is as follows:

- Reduce to acceptable levels human health risk from exposure to contaminants of concern (COCs) in impacted surface and subsurface soils through ingestion, direct contact, or inhalation exposure pathways, assuming reasonable anticipated future land-use scenarios.

IV. State Comments

IDEM has reviewed this ESD and concurred with the change in the selected remedy. The concurrence letter has been made a part of the Administrative Record.

V. Statutory Determinations

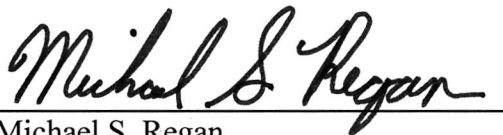
EPA has determined that the remedy change from Modified Alternative 4B to Alternative 4A as documented in this ESD, is in accordance with Section 121 of CERCLA and is protective of human health and the environment. The change complies with federal and state requirements that are applicable and/or relevant and appropriate, the remedy uses permanent solutions to the maximum extent practicable, and the remedy is cost-effective. Since hazardous substances will remain on-site at levels that do not allow for unrestricted use and unlimited exposure, five-year reviews of the remedy will be required.

VI. Public Participation Compliance

EPA will publish a brief description of the ESD in the local newspaper as required by the NCP at 40 C.F.R. § 300.435(c)(2)(i)(B). This ESD will also be placed in the Administrative Record and information repositories, which are located at the East Chicago Public Library and the Robert A. Pastrick Library, and in the EPA Region 5 office as required by the NCP at 40 C.F.R. § 300.435(c)(2)(i)(A). See Section I, paragraph G, of this ESD for further details about the information repositories. An electronic copy of this ESD will be available online at <https://www.epa.gov/uss-lead-superfund-site>.

VII. Declaration by EPA

EPA has determined that the change in zoning by the City from residential to light industrial coupled with the transfer of the property from ECHA to the developer, IDA, meet the conditions set forth in the ROD Amendment for changing the selected remedy from Modified Alternative 4B to Alternative 4A. This change is significant but does not fundamentally alter the overall remedial action for Zone 1 of OU1. This ESD, together with the PPA and ASAOC, will provide for the cleanup of modified Zone 1. For the reasons set forth above, I approve the issuance of this ESD for the U.S. Smelter and Lead Refinery Site.



Michael S. Regan
Administrator