



RCRA Corrective Action Statement of Basis & Public Comment Period

June 2021

Facility Name: United States Steel Lorain Tubular Operations

U.S. EPA I.D.: OHR 000 037 788

Location:

2199 East 28th Street
Lorain, Ohio 44055

Activity:

RCRA corrective action statement of basis for the remedies selected.

Comment Period:

The deadline for submitting comments is August 6, 2021.

Submit Comments to:

Submit written comments by email to Publiccomment@epa.ohio.gov and indicate the comments concern the US Steel Lorain, Statement of Basis.

What does the facility do?

The first known commercial use of the facility was steel making in 1894. The facility was built on undeveloped land. Over time, the facility has been variously known as U.S. Steel Lorain Pipe Mills, United States Steel/Kobe Steel Co., U.S. Steel Division of USX Corporation Lorain Works, and is currently known as United States Steel Corporation Lorain Tubular Operations. The facility at one time was a fully integrated steel plant that conducted coke manufacturing, iron production, steel production, hot metal forming, pickling, lime production, and galvanizing. The coke operation ceased in October 1983 and the galvanizing operation ceased in early 1984. The property where the coke plant was located was parceled off and sold to RTI International in 1999. RTI filed for Chapter 11 Bankruptcy in 2001, and the parcel is currently owned by the City of Lorain. Also in 1999, the steel making portion of the site was parceled off and sold to Republic Engineered Steel. The Corrective Action described here pertains only to the remaining Lorain Tubular Operations site.

Currently, U. S. Steel Lorain Tubular Operations manufactures high-quality seamless pipe for customers in the construction and oil and gas exploration and production industries. The facility has an annual production capability of 780,000 net tons, and major product lines include oil country tubing, casing, drill pipe, standard and line pipe, and coupling stock.

The facility primarily consists of two pipe mills, No. 3 and No. 4. The No. 3 pipe mill

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manufactures seamless pipe with outside diameters from 10.75 inches to 26 inches, while the No. 4 mill produces seamless pipe with outside diameters from 1.9 inches to 4.5 inches. The production facilities associated with these mills include:

- Rotary piercing mill
- Rotary expanding mill
- Stretch reducing mill
- Quench and temper line
- Austenitizing furnace
- Sizing mill

What is the Statement of Basis?

The Statement of Basis is the document which describes the process Ohio Environmental Protection Agency (Ohio EPA) uses under the Resource Conservation and Recovery Act (RCRA) to select measures for containing or cleaning up a hazardous waste management facility. This statement of basis will be public noticed and will allow the community to review and provide comments to Ohio EPA if warranted. If any public comments are received, they will be addressed by Ohio EPA. A Decision Document will then be issued by the Director.

What is the history of corrective action at the facility?

This facility has RCRA Corrective Action obligations and has been working with Ohio EPA to fulfill these obligations. On November 29, 2007, a RCRA Corrective Action Assessment Summary was submitted to Ohio EPA. The RCRA Corrective Action Assessment Summary identified and evaluated the potential for release of chemicals with respect to active and historic WMUs and AOCs. Seventy-five (75) potential WMUs and AOCs, including 8 active areas, 24 satellite waste accumulation areas, 5 USTs, 10 ASTs, 4 waste piles/containers, roll-off boxes, transformers, 4 historical WMUs and AOCs, 11

soil and surface spills, and 7 miscellaneous areas were identified on property currently owned by U. S. Steel Lorain Tubular Operations. Twelve (12) WMUs/AOCs were on property transferred to Republic Engineered Steel in 1999 and therefore were no longer on U. S. Steel Lorain Tubular Operations property.

During the Phase I RFI sample collection activities, several drums that were partially buried were discovered near the southwest portion of the Pipe Mill Lagoon (PML). An interim removal action conducted between September and October 2010 recovered 135 drum remnants or drum fragments from the banks of the Pipe Mill Lagoon. Most of the drums were in a crushed and deteriorated condition, although a few were described as intact. The drums were transferred to 85-gallon overpacks, which were temporarily stored on site at the designated hazardous waste accumulation area prior to characterization and off-site disposal.

Each individual drum that contained material (14 recovered drums were empty) was sampled and analyzed for potential hazardous properties.

The results of analysis identified several hazardous constituents detected in some of the drummed materials that were recovered including lead, PCBs, reactive sulfide, trichloroethene (TCE), and benzene.

Forty-one (41) drums were profiled as hazardous and sent to Heritage-WTI (OH980613541) in East Liverpool, Ohio for proper treatment and disposal.

Seven (7) drums were PCB-contaminated and sent to Veolia ES (TXD000838896) in Port Arthur, Texas for proper treatment and disposal.

Ninety (90) drums were non-hazardous (approximately 60 cubic yards) and sent to Waste Management – Evergreen RDF in Northwood, Ohio for proper treatment and disposal.

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Subsequent to the removal and off-site disposal of the removed drums, an investigation was conducted at the PML to evaluate the potential that more drums were buried in the banks of the PML and to collect soil samples to evaluate potential impacts to soils from releases of the drum contents. In February 2017, 10 soil borings were advanced in the top, sides and bottom of the PML banks to probe for drums; no drums were encountered. Eight subsurface soil samples were collected and analyzed for hazardous properties. In August 2017 eight surface soil samples were collected at the PML Drum Removal area to evaluate surface soil impacts. The eight surface soil samples (zero to two feet) were analyzed for hazardous properties.

Benzo(a)pyrene, naphthalene, PCB 1254, arsenic, iron and thallium exceeded the Industrial Soil RSLs and are COCs for the PML Drum Removal area.

Excavated materials generated during construction, demolition, and utility activities were originally managed in waste piles on bare ground, known as the Soil Management Area. The current soil management area (installed in 2011) is located at the southern end of WMU 28 in an area historically used for the management of excavated spoils. This area exhibited elevated levels of constituents in soils, notably in near-surface soils. U. S. Steel elected to install a lined soil management area designed to serve as an isolation barrier (*i.e.*, to eliminate direct contact by site workers) as well as to serve as a temporary containment/staging area for excavated materials pending analytical laboratory analysis. The isolation barrier includes a 12" clay liner, 24" 4x8 aggregate and 6" of 1x2 aggregate to create an impermeable area to stage excavated soils prior to sampling and shipment off site or re-use on site if determined to be clean. The area around the soil management area is bermed (with soil) to prevent runoff. The bermed material is covered with 12" of clay, 6" of topsoil and is vegetated.

Most of the WMUs/AOCs were recommended for "No Further Action" based on the RCRA Corrective Action Assessment Summary and a facility inspection conducted by Ohio EPA on November 6, 2006. Further investigation was recommended for thirteen (13) historic and current WMUs and AOCs.

Following Ohio EPA's review and approval of the November 29, 2007 RCRA Corrective Action Assessment Summary, U. S. Steel Lorain Tubular Operations submitted a Phase I RFI Work Plan to Ohio EPA in February 2012. The Phase I RFI listed the WMUs and AOCs to be investigated, what media (sediment and soil) would be sampled, what constituents would be analyzed for, and the procedures to be used during the investigation. The Phase I RFI work plan also included sediment and soil sampling protocols and methodologies, decontamination procedures, and the procedures for management of investigation derived wastes. Based on the results of Phase I RFI investigation, several phases of supplemental investigations were implemented to evaluate data gaps identified by the Phase I RFI. These supplemental investigations included a site-wide ground water investigation (Phase IIA RFI) which involved the installation and sampling of 12 ground water monitoring wells around the perimeter of the facility, and additional soil sampling to further evaluate surface and subsurface soil and delineate identified impacts at several areas (Phase IIB RFI and Supplemental Phase IIB RFI). Subsequent to completion of the Phase I RFI, two additional AOCs were identified and were included in the Phase II RFI.

Background remediation standards (BRs) for metals and polynuclear aromatic hydrocarbons were evaluated for this site. The collection of background samples and the development of the BRs are detailed in the RFI Report. Background sample locations were selected from different areas within the facility that were considered representative and believed to be relatively undisturbed. This process was done in

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conjunction with oversight from Ohio EPA. Ohio EPA concurs with the findings of the RFI.

A hazardous waste landfill is located on the facility, known as the D2 Landfill. It is currently regulated under an approved Post-Closure Plan. Ohio EPA is proposing to incorporate this landfill into the Corrective Action remedy and change the regulatory authority from the Post-Closure Plan to the Corrective Action implementing orders.

What would the Statement of Basis allow the facility to do?

Ohio EPA has evaluated alternatives in consideration of the threshold and balancing criteria. Balancing criteria are secondary considerations used to aid in remedy evaluation once the threshold criteria have been established. They are long term reliability and effectiveness, reduction in toxicity, mobility or volume of wastes, short term effectiveness, implementability, and cost.

Ohio EPA's preferred remedy for the U. S. Steel Lorain Tubular Operations facility includes U. S. Steel (the current property owner) and Ohio EPA entering into a Consent Order to implement corrective actions and require an Environmental Covenant restricting future use of the facility combined with on-going monitoring and maintenance of the D2 Landfill and isolated soil removal actions. Ohio EPA proposes that the facility will have use restrictions through enactment of an Environmental Covenant, an enforceable mechanism under Ohio law that can be used to restrict land use. The restriction will run with the land and be binding upon all future property owners should the facility be transferred or sold.

The Environmental Covenant will include a legal description of the subject facility, as well as language to prohibit affected portions of the facility from being used for residential or specific agricultural activities. In addition, ground water use for the entire site will be restricted to non-potable use and will not be permitted to be

withdrawn except for the purposes of monitoring and remediation. Ohio EPA will monitor the facility's adherence to the Environmental Covenant to ensure continued protection of human health and the environment.

In addition to the Environmental Covenant, the facility will be required to develop and implement a Risk Mitigation Plan. This plan will detail administrative processes and field procedures to be followed when invasive activities, such as excavation, are undertaken within the impacted areas. The plan will cover such things as identifying risk associated with the work to be completed, worker health and safety, and soils and material management. The plan will be reviewed and ultimately approved by Ohio EPA or approved with modifications. The plan will be developed and implemented pursuant to a Consent Order, to be negotiated between Ohio EPA and the facility.

A plan will have to be developed to address currently operating units, that, upon termination of use, will need to be assessed, investigated, and remediated (if necessary) with Ohio EPA oversight. The plan will be developed and implemented pursuant to Consent Orders, to be negotiated between Ohio EPA and the facility.

Provisions for assessing WMUs that currently are in use will be implemented at the time of cessation of operation of these units or before U. S. Steel ceases facility operations.

Provisions are already in place to provide on-going security to prevent trespassing.

Financial Assurance for the implementation of controls to be protective of human health and the environment will be required.

The majority of on-site impacts remain in deeper soils (below two feet deep) and therefore do not pose a risk for direct contact exposure. These deeper impacts will be addressed through an Environmental Covenant and the Risk Mitigation Plan. However, seven small areas with PAH and/or metals concentrations above Industrial

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RSLs were identified within the upper two feet of soils during the Phase IIB RFI. Due to the shallow nature of these contaminants, they pose a potential risk for direct contact exposure. The upper two feet of soil at these locations will be excavated and disposed at an appropriate, approved off-site location. Clean fill will be imported to backfill the excavations.

What is the regulatory basis to support this Statement of Basis?

The regulatory basis is part of the Corrective Action obligations under OAC-3745-54-101. Accordingly, Ohio EPA is issuing a draft action indicating the Director's intention with respect to the issuance of a Final Decision Document to United States Steel Lorain for the implementation of the remedies summarized.

Who can I contact for more information?

For additional information, please contact John Palmer at john.palmer@epa.ohio.gov or (330) 963-1232.

What is the history of the hazardous waste program?

RCRA, an amendment to the Solid Waste Disposal Act, was passed in 1976. The main reason for the amendment was to address the growing volume of municipal and industrial solid waste generated across the United States. A few goals established by RCRA include: to protect human health and the environment from potential hazards of waste disposal, to reduce the amount of waste generated, and to ensure that waste produced are managed in an environmentally sound manner.

When RCRA was written, U.S. Congress' intent was for the states to assume primary responsibility for implementing the hazardous waste regulations with oversight from the U.S. EPA. U.S. EPA must approve each state as an authorized state. To become an authorized state, each must demonstrate that the state program is at least equivalent to and consistent

with federal laws, provides adequate enforcement authority and provides availability of information similar to the federal program. Since 1989, the State of Ohio has been an authorized state by U.S. EPA for the majority of their hazardous waste program.

How can I become more involved?

The comment period runs through August 6, 2021. Copies of the statement of basis and other pertinent documents are available for review by the public at the following locations:

The statement of basis is available for review by the public online on Ohio EPA's website under the "What's New" tab at:

<https://www.epa.ohio.gov/derr/>

After the close of the public comment period, Ohio EPA will review all comments received and decide whether to issue the RCRA Corrective Action Decision Document based on the Statement of Basis. If there is significant interest in a public meeting, an announcement will be made on Ohio EPA's website (<https://www.epa.ohio.gov/derr/>) giving direction on how to attend a virtual public meeting. The final Decision Document will include a notification to those who submitted written comments during the official comment period. Ohio EPA will also prepare and send to all responders a document answering significant comments. Within 30 days of a final decision, any person who submitted written comments may petition Ohio EPA's Environmental Review Appeals Commission Board to review the decision.