



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103-2852

SUBJECT: Long-term Stewardship Desktop Assessment
Cleveland-Cliffs Steel Corporation (formerly AK Steel)
EPA ID: PAD004325254
One Armco Drive
Butler, PA 16003

DATE: September 23, 2022

TO: Alizabeth Olhasso, Branch Chief
RCRA CA Branch 2

FROM: Khai Dao, RPM
RCRA CA Branch 2

Introduction:

Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance with the final decision.

Remedy Assessment Summary:

In 2017, the United States Environmental Protection Agency's (EPA) issued a Final Decision and Response to Comments (FDRTC) of Corrective Action Complete with Controls that requires ongoing groundwater water monitoring, inspection and maintenance of the cap for the former Sludge Beds, and restricts land use to non-residential. The Facility completed the requirements of RCRA corrective action under the Pennsylvania Department of Environmental Protection (PADEP) that included the clean closure of several solid waste management units (SWMUs), the investigation of surface and subsurface soils, and the implementation of groundwater monitoring.

In 2018, the Facility executed an environmental covenant that requires ongoing maintenance and monitoring for Sludge Beds #4, #5, and #6, post-closure groundwater monitoring, and restricts the property for non-residential. The Sludge Beds are closed surface impoundments that historically managed lime-stablized waste pickle liquor and processed water.

Historic groundwater results that expanded the last 26 years indicate that the former SWMUs and Sludge Beds have not adversely impacted groundwater. There are no residential wells within a two-mile radius of the Facility. There are no onsite drinking or process water supply wells on the Facility property. The Facility is connected to public water for potable use. The integrity of the Sludge Bed

caps is good condition. EPA has determined that the Facility is in compliance with EPA's remedy decision.

Facility Background:

In February 2021, AK Steel Corporation changed its corporate name to Cleveland-Cliffs Steel Corporation (Cleveland-Cliffs). Cleveland-Cliffs is located along the Connoquenseeing Creek, 3 miles south of Butler, Pennsylvania in Butler County. Cleveland-Cliffs is a specialty steel mill that produces silicon and stainless steels. The Site is approximately 975 acres and is comprised of two joint facilities, which consist of the Main Plant, located on Bantam Avenue and the Stainless Processing Plant, located on Standard Avenue.

Cleveland-Cliffs operates several solid waste management units (SWMUs) that are key components to its operations. Over time as the manufacturing operations changed, some of the SWMUs were closed under PADEP. PADEP Act 2 Medium-Specific Concentrations (MSCs) standards were applied to the closures of the SWMUs and specific areas of concerns (AOCs). These standards are compatible with EPA Regional Screening Levels (RSLs) and provide equivalent environmental protection. Impacted soils and waste materials that were associated with the closure of the former SWMUs were excavated and disposed. Post-excavation confirmatory soil samples met the applicable PADEP Act 2 Medium-Specific Concentrations (MSCs) for soil and soil to groundwater for non-residential and non-use aquifers. The excavated areas were backfilled and covered with a vegetative cover. The closure of the former Sludge Beds required ongoing inspection and maintenance of the cap and groundwater monitoring.

Current Site Status:

Cleveland-Cliffs continues to operate as a specialty metal manufacturer. The steelmaking operations at the Facility include melting, refining, casting, hot-rolling, cold-rolling and finishing. Scrap and alloys are combined in electric arc furnaces to produce the various grades of specialty steels.

The remedies implemented at the Facility include engineering and institutional controls. Cleveland-Cliffs continues to conduct post-closure groundwater monitoring and cap inspection in accordance with the post-closure plans for the former Sludge Beds. Historic groundwater data indicate that the operation and closure of the former Sludge Beds have not adversely impact groundwater. The integrity of the caps for the sludge beds is intact. An environmental covenant restricts the property for non-residential uses only.

In 2022, PADEP completed a Groundwater Monitoring Evaluation (GME) that evaluated the 2021 quarterly groundwater sampling and the 2022 first quarter sampling results. In addition to the GME inspection, the PADEP Waste Management Office, Solid Waste Specialist, completed a routine inspection of the Sludge Beds on May 17, 2021 and September 28, 2021.

The GME inspection did not cite any violations and did not reveal any recommended changes for the existing groundwater monitoring plan. PADEP recommends that the routine quarterly groundwater monitoring events continue. The caps for the Sludges Beds are in good condition. No violation were noted during the inspection of the Sludge Beds.

Financial Assurance:

The Facility has a surety bond in the amount of \$249,396 for the post-closure activities.

Reporting Requirements/Compliance:

Quarterly groundwater monitoring reports and periodic inspection update of the Sludge Bed caps are submitted to PADEP.

Mapping:

The Facility property boundary and the locations of the Sludge Beds has been geospatially mapped. A downloadable geospatial PDF map is available at the Facility's EPA Factsheet

(<https://www.epa.gov/hwcorrectiveactioncleanups/hazardous-waste-cleanup-ak-steel-corporation-armco-butler-pennsylvania>) under the "Reports, Documents and Photographs" section.

Conclusions and Recommendations:

EPA has determined that the Facility is in compliance with EPA's remedy decision. EPA concludes that the implemented engineering and institutional controls are effective in meeting the objectives of protection of human health and the environment. Cleveland-Cliffs will continue to conduct groundwater monitoring and inspect and maintain the integrity of the Sludge Bed caps in accordance with the post-closure plans and regulatory requirements.

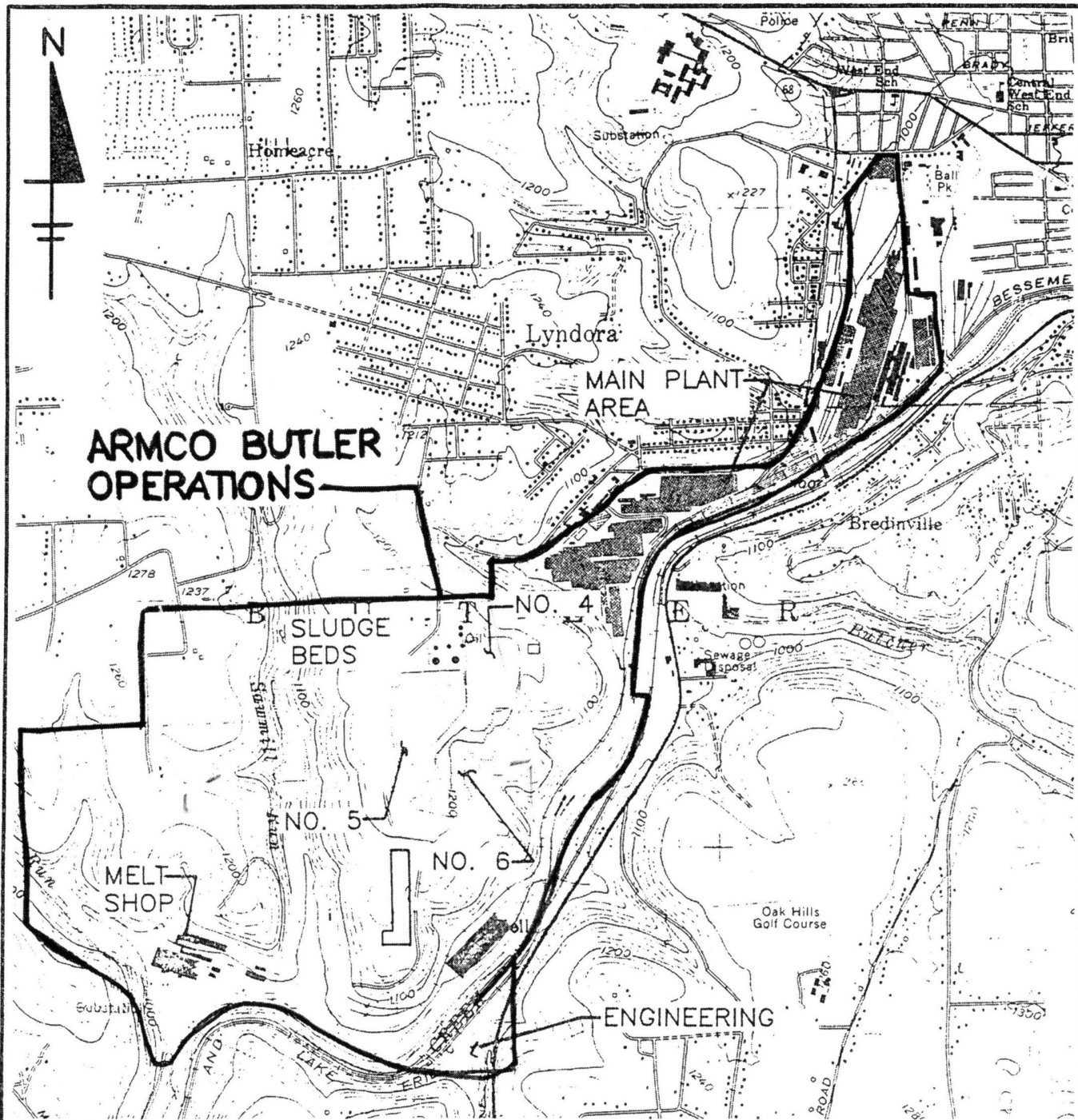
Files Reviewed:

Cleveland-Cliffs Steel Corporation Comprehensive Groundwater Monitoring Evaluation (GME), Prepared by PADEP July 28, 2022.

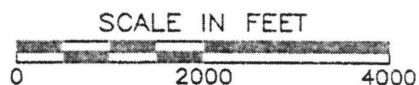
AK Steel Corp. Environmental Covenant, March 26, 2018.


AK Steel Corp. Final Decision and Response to Comments, Prepared by EPA July 2017.

AK Steel Corp. Statement of Basis, Prepared by EPA June 2017.

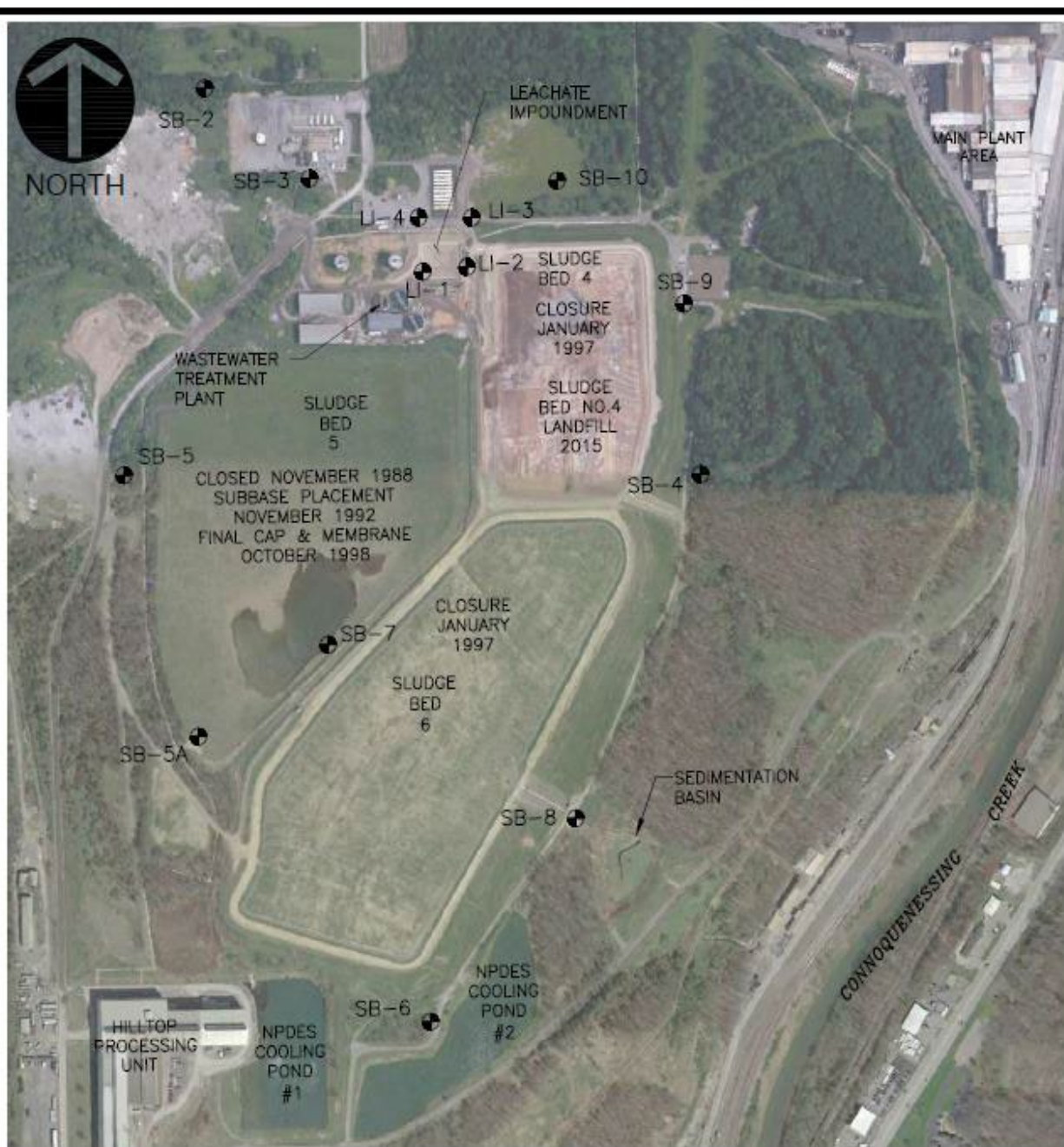


REFERENCE:
 U.S.G.S. 7.5' TOPOGRAPHIC MAP BUTLER
 QUADRANGLE PENNSYLVANIA, DATED: 1958,
 PHOTOREVISED: 1969, PHOTOINSPECTED: 1977,
 SCALE: 1"=2000'.



 Civil & Environmental Consultants, Inc. Pittsburgh, PA Cincinnati, OH (412) 921-3402 • (800) 365-2324 (513) 985-0226 • (800) 759-5614		SITE LOCATION AK STEEL CORPORATION BUTLER OPERATIONS BUTLER, PENNSYLVANIA			
DWN BY: M.T.M.	ACAD FILE	SCALE	DATE		
CHKD. BY:	94234F21	1"=2000'	9/26/96	94234.0003	FIGURE 1

G:\Projects\1989\89133\DWG\TASK 0001\89133-SITE LAYOUT.dwg[GOOGLE] LS:1/9/2017 - ddiabie) - LP: 3/28/2021 1:22 PM



REFERENCE

AERIAL PHOTO IS A HIGH RESOLUTION
ORTHOIMAGE FROM GOOGLE PRO DATED
APRIL 17, 2016.

LEGEND

● MONITORING WELL

SCALE IN FEET
0 500 1000

* HAND SIGNATURE ON FILE



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CLEVELAND-CLIFFS STEEL-BUTLER WORKS
BUTLER COUNTY
BUTLER, PENNSYLVANIA

SLUDGE BED AREA LAYOUT

DRAWN BY:	DWD	CHECKED BY:	MAK	APPROVED BY:	*DFS	FIGURE NO.:
DATE:	4/8/2013	DWG SCALE:	1"=500'	PROJECT NO:	89-133.0001	2

Facility Name	Cleveland-Cliffs Steel Corporation (formerly AK Steel)			
Address	One Armco Drive, Butler PA 16003			
EPA ID Number	PAD004325254			
Are there restrictions or controls that address:	Yes	No	Areas	Description of restrictions, controls, and mechanism
Groundwater		x		
Residential Use	x		Entire facility	Environ. Covenant that restricts property to non-residential use.
Excavation	x		Former Sludge Beds, and Chrome Reduction Pond	Excavation in these areas require notification and approval from the regulatory agencies.
Vapor Intrusion		x		
Capped Areas	x			Environ. Covenant that requires inspection and maintenance of Sludge Bed caps.
Other Engineering Controls	x			Groundwater monitoring in accordance with the post-closure plans and regulatory requirements.
Other Restrictions		x		

LTS Checklist Template

<u>IC Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Have the ICs specified in the remedy been fully implemented? Implementation mechanism in place?	x		
• Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?	x		
• Are the ICs eliminating or reducing exposure of all potential receptors to known contamination?	x		
• Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?	x		
• Have the risk of potential pathway exposures addressed under Corrective Action changed based on updated screening levels and new technologies?		x	
• Are modifications to the IC implementation mechanism needed? (i.e. UECA Covenant, Permit or Order)		x	
• Are there plans to develop or sell the property?		x	
• Have all reporting requirements been met?	x		

<u>Groundwater Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Is groundwater onsite used for potable purposes?		x	
• Is the Facility connected to a public water supply?	x		
• Have any new wells been installed at the facility?		x	
• Are the current groundwater flow rate and direction similar as mentioned in the previous studies?	x		
• Groundwater contaminants stable or decreasing in concentration?	x		
• Are groundwater monitoring wells still in place (# wells)?	x		

• Any evidence or reason to re-evaluate the number and location of monitoring points and/or monitoring frequency?		x	
• For wells where groundwater monitoring is no longer required, have the wells be decommissioned?	x		
• Is there evidence of monitored natural attenuation occurring in groundwater?		x	
• Has (active remediation system) been maintained as necessary?			N/A – Only monitoring to ensure levels are stable and below PADEP MSC stds.
• Is the (groundwater containment system) effectively containing COCs and protecting potential receptors (surface water body and/or groundwater resource) via hydraulic control?			N/A – No active remediation. Only monitoring.
• Have notification letters been sent to the local POTW, County Department of Health, and Planning and Zoning Department regarding groundwater use restrictions?		x	GW is not contaminated above PADEP MSC stds. Currently, no gw restrictions at the site. Facility is connected to municipal water.

<u>Surface and Subsurface Soil Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Is the facility being used for residential purposes?		x	
• Have there been recent construction or earth-moving activities or plans for such?		x	

<u>Engineered Cap or Cover Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Have geosynthetic/vegetative landfill caps (name) been properly maintained?	x		
• Have any repairs been necessary? (i.e. regrading, filling, root removal)		x	
• Is the leachate collection system operating and effectively preventing groundwater contamination?			N/A

<u>Vapor Intrusion Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Have there been construction of new structures within the vapor intrusion restriction zone(s)?			N/A
• Is the vapor intrusion mitigation system radius of influence effective for the structure in which its installed?			N/A

<u>Miscellaneous Review and Assessment Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Is the security fence intact?	x		
• Is the appropriate signage posted?	x		