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

SUBJECT: Long-Term Stewardship Assessment
Babcock & Wilcox
EPA ID: PAD987335379
6th & Mount Street
Koppel, PA 16136

DATE: September 15, 2022

TO: Alizabeth Olhasso, Branch Chief
Long Term Stewardship File for Babcock & Wilcox
RCRA Corrective Action Branch 2

FROM: Kristin Koroncai, Remedial Project Manager

Remedy Assessment Summary: On July 7, 2022, the United States Environmental Protection Agency's (USEPA) Land, Chemicals, and Redevelopment Division (LCRD) representative, Kristin Koroncai, conducted a long-term stewardship assessment site visit of the Babcock and Wilcox EAF Landfill (Facility) in Koppel, PA. Based on the site visit, file review, and recent Pennsylvania Department of Environmental Protection's (PADEP) Compliance Evaluation Inspection and Groundwater Monitoring Evaluation, information gathered concludes the Facility is meeting the objectives of the 2006 PADEP Post-Closure Permit or USEPA's final remedy selected in the 2010 Statement of Basis.

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.

Facility Background: The Facility is a closed landfill located in Koppel, Beaver County, PA. The Facility is 5.3 acres and is surrounded by the IPSCO Koppel Tubulars Corporation steel plant, formerly operated by the Babcock and Wilcox Company. The landfill contains approximately 50,000 cubic yards of electric-arc furnace (EAF) dust generated by Babcock and Wilcox when that company operated the mill. When the plant was sold in 1999, Babcock and Wilcox retained this 5.3-acre parcel and closed the landfill with PADEP approval and oversight. On June 24, 2013, PADEP issued a post-closure permit (Permit #PAD987335379) that requires Babcock and Wilcox to maintain the landfill and to monitor groundwater twice a year. The permit also contains contingent measures to remediate any future release to groundwater. The permit requires monitoring and maintenance be conducted in accordance with the post-closure plan. The post-closure plan (Operations & Maintenance Program Plan) was most recently

amended on January 5, 2021. A note is included on the deed of the property briefly describing the history of hazardous wastes at the Facility; it also restricts disturbance to the cover, liner, or any other component of the containment system or function of the monitoring systems on the property.

Current Site Status: The Facility was observed to be in satisfactory condition. The perimeter fencing was in acceptable condition, continuous around the landfill, and well-marked. The vegetated cover of the cap was visually inspected; vegetation was maintained and no signs of maintenance issues that would affect the integrity of the cap were observed. During the desktop review portion of this LTS assessment, it was identified that the Statement of Basis in the record files referred to an EPA draft permit. While there is reference to a Final Decision document, no such document or equivalent was found in the records. In a subsequent archive record search, an EPA Permit No. 987335379 was found. This permit was issued on August 18, 2010; the permit acknowledged a determination that protection of human health and the environment has been achieved at the Facility and will continue to be achieved as long as the operation and maintenance activities are performed and the institutional controls are maintained and complied with, as required by the PADEP Post-Closure Permit 987335379. It is assumed that this permit was intended to be equivalent to a Final Decision document. It is unknown whether this EPA permit is still active.

The most recent groundwater monitoring was conducted on October 5, 2021. There are 7 wells that are included in the monitoring; however, 2 wells (MB-1 and W-1) had no data reported during this event. The reported results for Cadmium in all wells where data was reported were below the EPA MCL of .005mg/L. The reported results for Lead in all wells where data was reported were below the EPA Action Level of .015mg/L. The reported results for Zinc in all wells where data was reported were below the EPA Tapwater Screening Level of 0.6mg/L. Specific Conductance ranged from 1150-1290umhos/cm in upgradient wells and from 449-1090 in downgradient wells. Per the PADEP Post-Closure Permit, Specific Conductance was reported to not have statistically significantly increased, and concentrations were attributed to upgradient conditions.

Long-term Stewardship Site Visit: On July 9, 2022, EPA conducted a long-term stewardship site visit with Babcock & Wilcox to discuss and assess the status of the implemented remedies at the Facility.

The attendees were:

Name	Organization	Email Address
Kristin Koroncai	US EPA Region 3	Koroncai.kristin@epa.gov
Mark Davis	Babcock & Wilcox	Madavis2@babcock.com

Implementation Mechanism(s): The Implementation Mechanism is the method for implementing ICs required as a condition of the Statement of Basis and Final Decision. The ICs are described in Attachment 1.

Financial Assurance: The Facility has a bond in the amount of $1,009,227.29 that includes costs for the groundwater monitoring, leachate management, facility maintenance, and

permitting costs. An Annual Post Closure Cost Estimate and associate bonding worksheet was submitted to PADEP in May 2022.

Reporting Requirements/Compliance: Annual groundwater monitoring reports are required to be submitted to PADEP; the most recent report was submitted on November 22, 2021, and indicates compliance with this reporting requirement.

Mapping: The landfill cap area has been geospatially mapped and is located on the Facility's EPA Factsheet.

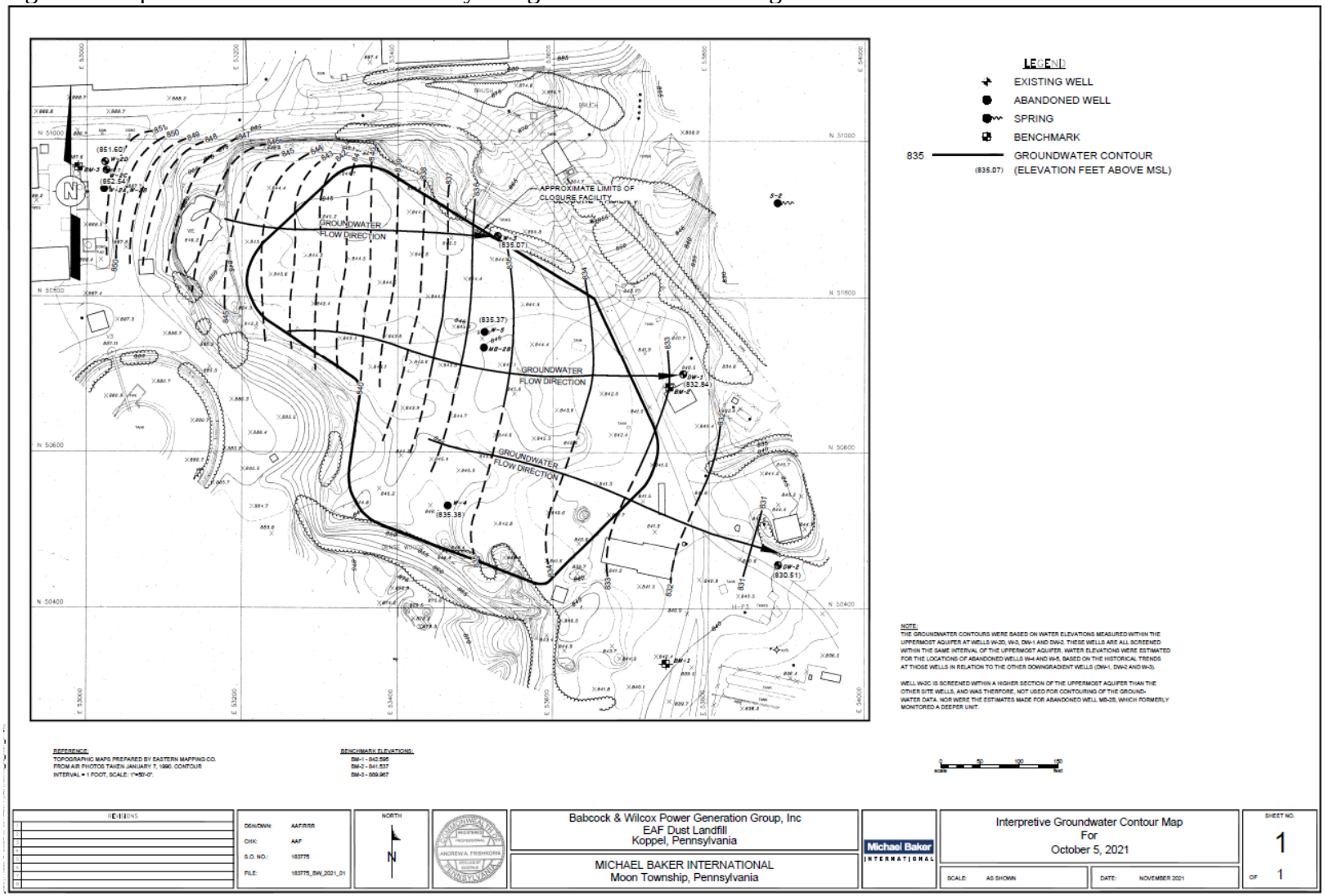
Conclusions and Recommendations: Further assessment should be conducted to determine whether the EPA permit issued on August 18, 2010, is still active and enforceable and/or any further action needed. Follow up with the Facility is also needed to determine what the cause is for the lack of results reported in monitoring wells W-1 and MB-1 during the 2021 sampling event. While the deed of the property indicates restrictions to disturbance of the cap and monitoring system, it does not appear there are any other land or groundwater use restrictions on the property; further assessment should be conducted to determine whether these are necessary to protect human health and the environment.

Files Reviewed:

1. Operations & Maintenance Plan, Babcock & Wilcox Company Koppel EAF Dust Landfill. January 5, 2021
2. Permit No. PAD98733579, PADEP Permit for Hazardous Waste Treatment, Storage, and/or Disposal Facility. June 24, 2013.
3. Permit No. 987335379. U.S. EPA Permit for Hazardous Waste Facility Corrective Action. August 18, 2010.
4. Annual Post Closure Cost Estimate. Babcock & Wilcox. May 2022.
5. Deed of Record, Beaver County. June 1, 1990.

Attachments:

Figure 1: Map of Babcock & Wilcox Facility and groundwater monitoring well locations.



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Attachment 1: Remedial Summary Table

Facility Name	Babcock & Wilcox			
Address	6th & Mount St, Koppel PA 16136			
EPA ID Number	PAD987335379			
Are there restrictions or controls that address:	Yes	No	Area(s)	Description of restrictions, controls and mechanism
Groundwater Use		X		
Residential Use		X		
Excavation		X		
Vapor Intrusion		X		
Capped Area(s)	X			monitoring and maintenance of cap and cover
Other Engineering Controls	X			maintenance of leachate collection and detection system, monitoring wells
Other Restrictions			entire site	Maintenance of perimeter fencing, prevent surface water runoff

LTS Checklist Template

IC Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Have the ICs specified in the remedy been fully implemented? Implementation mechanism in place?			N/A- no ICs were identified.
• Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?			N/A
• Are the ICs eliminating or reducing exposure of all potential receptors to known contamination?			N/A
• Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?			N/A
• 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		A UECA should be considered for activity and use limitations for soil and/or groundwater. A permit should also be considered if the current EPA permit is determined to no longer be valid.
• Are there plans to develop or sell the property?		x	
• Have all reporting requirements been met?	x		

Groundwater Review and Assessment Questions:	**Yes**	**No**	**Notes**
• 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		7 wells
• Any evidence or reason to re-evaluate the number and location of monitoring points and/or monitoring frequency?	x		2 upgradient monitoring wells did not produce results in 2021. Further investigation should be conducted to determine adequacy of monitoring network.
• For wells where groundwater monitoring is no longer required, have the wells be decommissioned?			N/A
• Is there evidence of monitored natural attenuation occuring in groundwater?			N/A- there is a leachate system in place.
• Has (active remediation system) been maintained as necessary?	x		
• Is the (groundwater containment system) effectively containing COCs and protecting potential receptors (surface water body and/or groundwater resource) via hydraulic control?	x		
• Have notification letters been sent to the local POTW, County Department of Health, and Planning and Zoning Department regarding groundwater use restrictions?			Unknown. Follow up needed.

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

Engineered Cap or Cover Review and Assessment Questions:	**Yes**	**No**	**Notes**
• 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?	x		

Vapor Intrusion Review and Assessment Questions:	**Yes**	**No**	**Notes**
• 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

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