



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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July 5, 2023

Mr. Dan Dyer
CSX Transportation, Inc.
31 East Georgia Street
Indianapolis, Indiana 46204
Dan_Dyer@csx.com

VIA ELECTRONIC MAIL

RE: **Long Term Stewardship Report**
CSX Transportation, Inc.
EPA ID VAD003121977

Dear Mr. Dyer:

The Virginia Department of Environmental Quality, Office of Remediation Programs (VDEQ) has prepared the attached report following the Long Term Stewardship inspection performed on April 27, 2023 at the CSX Transportation, Inc. site located in Richmond, Virginia. The inspection found no outstanding items with compliance of engineering and institutional controls.

You may contact me to discuss any questions. I can be reached at 804-584-3143 or by email at stephanie.houston@deq.virginia.gov.

Respectfully,

Stephanie Houston
Corrective Action Project Manager



ECC: Tara Mason, Ashby Scott – VDEQ-CO
Shawn Weimer, Jeremy Hicks – VDEQ-PRO
Jacqueline Morrison, John Hopkins, Caitlin Elverson – USEPA Region III
Whitney Law, Greg Roush – Geosyntec Consultants

Attachments



Long-Term Stewardship Assessment Report
CSX Transportation, Inc.
(Beazer East Site)
EPA ID VAD003121977

Prepared by: Stephanie Houston

Date: July 5, 2023

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 observed. 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 two-fold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

The RCRA Corrective Action Program has identified key elements of effective Long Term Stewardship for Corrective Action cleanups. The LTS Report took into consideration the following elements while preparing this report:

- Element 1 – Legal Authorities
- Element 2 – Information Regarding Engineering and Institutional Controls
- Element 3 – Long-Term Facility Oversight, Monitoring, and Maintenance
- Element 4 – Recordkeeping and Tracking
- Element 5 – Meaningful Engagement and Consultation
- Element 6 – Funding
- Element 7 – Enforcement
- Element 8 – Enforceable Mechanisms
- Element 9 – Dedicated Resources

Site Background:

The address of the CSX Transportation, Inc., site (“Site”) is 2401 Charles City Road, Richmond, VA, and the Site is located in eastern Henrico County, Virginia, approximately 2.5 miles east of the Richmond city limits. The Site consists of approximately 52 acres of industrial property and

lies within a general industrial zone situated between Charles City Road to the north and the double track rail line operated by CSX Transportation, Inc. to the South.

The Site was owned by Chesapeake and Ohio Railroad until it was purchased by Koppers Company, Inc. ("Koppers") in 1948. Koppers produced creosote-treated railroad ties at the Site from 1949 to 1983 when operations ceased. When the regulations implementing RCRA went into effect, the wood treatment plant began operating as an interim status facility because a surface impoundment at the Site qualified as a hazardous waste management unit. The wood treatment plant was subsequently decommissioned and the equipment was removed from the Site. Thereafter, through a series of corporate transactions, ownership of the Site passed to Beazer East, Inc. ("Beazer"). CSX Transportation, Inc. ("CSXT") subsequently acquired the Site from Beazer on March 21, 1997.

Beazer East, Inc. (Beazer) entered into an Administrative Order on Consent (the Consent Order) with EPA on April 24, 1991, pursuant to Section 3008(h) of RCRA to address corrective action requirements under RCRA applicable to the Site. The Consent Order required Beazer to implement certain interim measures, to complete a RCRA Facility Investigation (RFI), and to complete a Corrective Measures Study (CMS) in connection with the Site. The obligations of the Consent Order were transferred from Beazer to CSXT effective April 22, 1998 after CSXT acquired the site.

EPA issued a Final Decision and Response to Comments ("FDRTC") selecting the final remedy for the Property pursuant to the RCRA corrective action program on December 21, 2009. Final remedies identified included demolition of buildings, installation and maintenance of a slurry wall, excavation and consolidation of targeted soils and sediment with contaminants of concern ("COC") above remedial goals ("RGs"), free product recovery, in situ remediation, implementation of institutional and engineering controls, and long-term monitoring and operation and maintenance. Site-wide corrective measures described in the FDRTC document were incorporated into an existing hazardous waste management permit initially issued by VDEQ for post-closure care of the closed hazardous waste surface impoundment and that came into effect on May 5, 2000. The permit with the incorporated site-wide corrective actions was renewed August 17, 2010. The permit has since been renewed on June 28, 2021 and is effective until June 28, 2031.

Current Site Status:

Based on the findings set forth in the RFI, EPA determined that past operations at the Facility have resulted in soil, sediment and groundwater contamination from mainly wood treatment chemicals, including polynuclear aromatic hydrocarbons (PAHs) and acid extractable phenolic compounds (phenols), along with other contaminants including dense, free product, metals, and 2,4,5-TD (commonly known as Silvex). The proposed remedy for the Facility emphasizes source removal and source control through excavation, consolidation and capping of soils and sediments with concentrations of contaminants above remedial goals in a containment area (i.e. slurry wall). The primary source area of groundwater contamination is controlled via a slurry wall and free product removal, and targeted in-situ treatment and monitored natural attenuation have been used to address areas outside of the proposed containment or slurry wall and restore groundwater

to drinking water standards. It was reported that no free product has been detected in any of the recovery wells after the 2020 sampling events. However, the Facility has since notified VDEQ of user error during free product gauging and in May 2023, bailed 6.5 gallons of accumulated free product from RW-1. The Facility will conduct another gauging event over the summer and bail additional free product during the Fall event if needed. Institutional controls have also been implemented through an UECA Covenant to prevent current and potential future exposure to contamination.

Current operation and maintenance (O&M) of the corrective action activities are detailed in the Post-Construction Implementation (PCI) Plan and Quality Assurance Project Plan (QAPP). The corrective action consists of long-term monitoring and O&M including the following:

- i. Groundwater quality and hydraulic monitoring to evaluate the effectiveness of the corrective measures;
- ii. Free product recovery;
- iii. Site inspections and maintenance; and
- iv. Monitoring and maintaining institutional controls

Site-wide corrective measures were incorporated into the hazardous waste management permit with concurrence from EPA and as authorized pursuant to 40 C.F.R. §§ 264.90(f) and 264.110(c), incorporated by reference in Virginia's hazardous waste management regulations at 9 Va. Admin. Code § 20-60-264.

CSXT as the owner of the property entered into an Environmental Covenant with VDEQ on August 1, 2018 pursuant to the Virginia Uniform Environmental Covenants Act (UECA), §10.1-1238 et seq. of the Code of Virginia, which has been recorded with the deed for the property.

Element 1: Legal Authorities

The remedy is being implemented under a Hazardous Waste Management Permit for Corrective Action (Permit) issued by VDEQ on August 17, 2010. The permit was renewed on June 28, 2021 and will remain effective until June 28, 2031. Institutional controls were implemented through an Environmental Covenant compliant with the Uniform Environmental Covenant Act (UECA), recorded on August 01, 2018. The Permit and UECA serve as the authority for enforcing the final remedy at the site. DEQ is listed as the Agency in the Permit and Covenant.

Element 2: Information Regarding Engineering and Institutional Controls

The following controls are required as part of the CA remedy.

Associated Area	Restriction
Facility-wide	1. The Property shall only be used for non-residential purposes and shall not be used for residential purposes (including improvements, structures or dwellings used for living accommodations such as single family homes, multiple family dwellings, detached housing, condominiums, apartment buildings, dormitories, senior citizen housing and other residential-style facilities; schools; day care centers; child care centers; hospitals; and in-patient health care facilities).

Associated Area	Restriction
	2. Groundwater from beneath the Property shall not be used for any purpose; provided, however, that the collection of groundwater samples and the installation and use of groundwater monitoring, recovery, injection or extraction wells or similar devices used for or related to the performance of groundwater assessment or remediation shall not be prohibited. 3. Subsurface soils at the Property shall not be excavated except in conformance with an appropriate soil management plan.
Slurry Wall	No activities that would interfere with or adversely impact the slurry wall that has been installed at the Property may be undertaken.
Soil Cap	The cap over the slurry wall containment area shall be periodically inspected and maintained.

Element 3 – Long-Term Facility Oversight, Monitoring and Maintenance

The Permit requires several long-term monitoring and Operation and Maintenance (O&M) activities including the following:

- i. Groundwater quality and hydraulic monitoring to evaluate the effectiveness of the corrective measures;
- ii. Free product recovery;
- iii. Site inspections and maintenance; and
- iv. Monitoring and maintaining institutional controls

The Permit requires that the Facility properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Facility to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including quality assurance procedures.

In addition, the Permit requires the Facility to submit an annual progress report no later than March 1st of each calendar year covering the status and performance of completed corrective measure(s) until remedial clean-up requirements for groundwater have been met. The Permit also requires the Facility to submit a five-year Corrective Measures Status Evaluation report addressing the progress of the remedial measures at the Facility, including efforts to meet the cleanup targets and remedial goals for groundwater, and the effectiveness of the institutional controls and engineering controls for meeting human health and environmental protection objectives. The most recent annual report was submitted February 28, 2023 and approved by VDEQ on April 7, 2023. The most recent five-year review report was submitted on February 28, 2022 along with the 2021 annual report, and approved by VDEQ on August 22, 2022.

The UECA Covenant requires that, by the end of every fifth January following the Agency’s approval of the Covenant on August 1, 2018 and within thirty (30) days after receipt of a written request from the Agency, the then current owner of the Property shall submit to the Agency and

to CSXT as the Holder of the Covenant written documentation stating whether or not the activity and use limitations of the Covenant are being observed. This documentation is due this year, and CSXT is aware of this requirement.

The Facility is not located within the 1% Annual Chance Flood Hazard Area nor the 0.2% Annual Chance Flood Area as indicated on [FEMA's National Flood Hazard Layer \(NFHL\) Viewer](#). Remedies are therefore not susceptible to climate impacts based on these flood criteria.

Element 4 – Recordkeeping and Tracking

The Permit and UECA provide visual representation of the activity and use limitations.

Mapping: The EPA Facility website figure has been updated with a Geospatial PDF showing the use restriction boundaries. The map was field-verified and no issues were noted.

Element 5 – Meaningful Engagement and Consultation

The Facility is not an active facility in the community, and it has no off-site impacts. The Statement of Basis was publicly noticed on July 29, 2009. EPA responded to the most significant of these comments in the Final Decision and Response to Comments document dated December 21, 2009.

Element 6 – Funding

Financial Assurance: Financial Assurance is required for this Facility and has been demonstrated to the DEQ in accordance with the Permit. The most recent financial assurance letter was dated March 30, 2023.

Element 7 – Enforcement

The Permit allows DEQ the Authority to enforce the remedy. EPA, without limitation, reserves its right to take administrative enforcement action under RCRA or other federal law for violations. The UECA covenant provides additional enforceability for the Grantor.

Element 8 – Enforceable Mechanisms

A Consent Order was issued by the EPA on April 24, 1991 pursuant to Section 3008(h) of RCRA. A Hazardous Waste Management Permit for Corrective Action was issued by VDEQ on August 17, 2010 and renewed on June 28, 2021. An Environmental Covenant compliant with the Uniform Environmental Covenant Act (UECA) was recorded on August 1, 2018.

Element 9 – Dedicated Resources

The Performance Partnership Grant Workplan provides for Long-Term Stewardship activities. The Programmatic goal is to evaluate 20% of facilities with remedies older than 10 years.

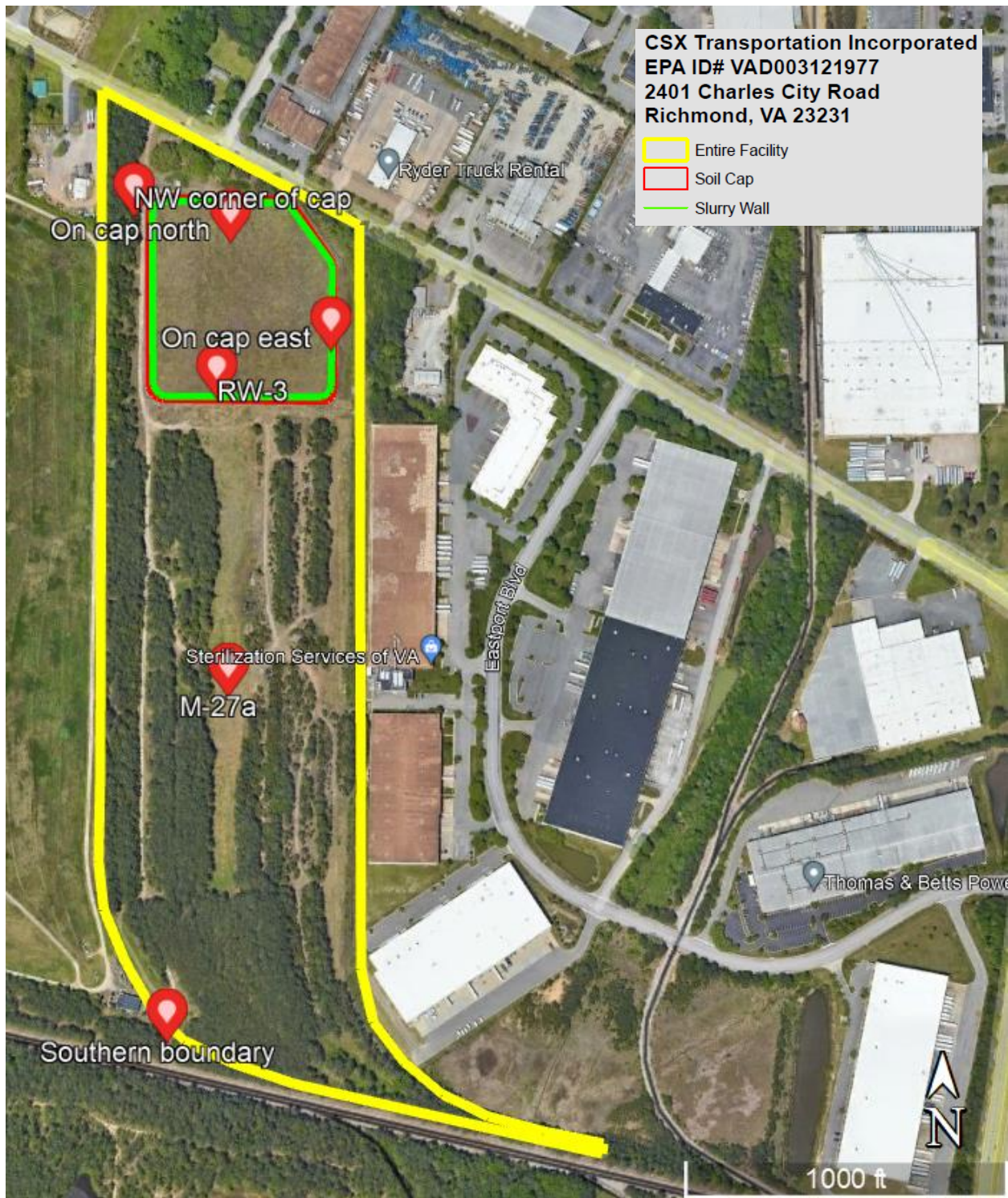
Long-term Stewardship Site Visit: On April 27, 2023

DEQ conducted a long-term stewardship site visit to discuss and assess the status of the implemented remedies at the site. A field report is included with this letter.

Follow-up Activities: The UECA five-year report is due this year. VDEQ will follow up with the Facility to ensure that this compliance requirement is completed.

Conclusion: The engineering and institutional controls selected are implemented and remain intact and undamaged. No EC/IC deficiencies have been identified.

DEQ Long Term Stewardship Facility Map
CSX Transportation, Inc. – Richmond, Virginia



Select Site Photos
Photos by: Stephanie Houston
April 27, 2023

Northwest Corner of Cap



Facing East. Storage shed includes PPE, various equipment, and some hazardous waste stored according to permit.

On Cap North



Facing North. PZ-2A and PZ-2S shown in photo.

CSX Transportation, Inc.
2023 Long Term Stewardship Inspection



Facing South. Grass was recently mowed.



Flag noting gopher hole. Flags indicated gopher holes, which have been repaired.

Recovery Well 3



Facing South. Cap is shown in the foreground and former drip track is shown in the background.

M-27A



Facing North. M-27A is shown in the foreground, and former drip track and cap are shown in the background.

Southern Boundary



Facing South. Perimeter fence is shown in the background.

CSX Transportation, Inc.
 2023 Long Term Stewardship Inspection

Field Checklist

Onsite Date/Time: 4/27/2023, 10:00 am

Offsite Date/Time: 4/27/2023, 11:15 am

Personnel Present

- Whitney Law, Geosyntec
- Dan Dyer, CSX
- Jeremy Hicks, VDEQ
- Tara Mason, VDEQ
- Stephanie Houston, VDEQ

IC Review and Assessment Questions:	Yes	No	Notes
• Have the ICs specified in the remedy been fully implemented? Implementation mechanism in place?	X		UECA Covenant dated 8/1/2018
• Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?	X		Site fence checked as part of inspection/maintenance events
• 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		No activities have changed onsite
• 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	None currently. There've been inquiries
• Have all reporting requirements been met?		X	UECA 5-year report pending

CSX Transportation, Inc.
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<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		Naphthalene showing indications of increasing at M-42A in past couple years; Facility is considering applying another ISCO treatment on southern end of cap
• Are groundwater monitoring wells still in place (# wells)?	X		Wells generally in good condition; R-3 – top doesn't close all the way, M-45 – rust on well cover; Facility has a maintenance plan for addressing well maintenance
• 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 been decommissioned?		X	
• Is there evidence of monitored natural attenuation occurring in groundwater?	X		
• Has free product recovery been maintained as necessary?	X		Reported no detects during 2022 sampling event. Facility notified VDEQ of user error and subsequent actions.
• Is the slurry wall effectively containing COCs and protecting potential receptors (surface water body and/or groundwater resource) via hydraulic control?	X		No ponding observed on or around the cap and slurry wall
• Have notification letters been sent to the local POTW, County Department of Health, and Planning and Zoning Department regarding groundwater use restrictions?	X		2/27/2019 – notification to prohibit well drilling to Henrico County Health Department

CSX Transportation, Inc.
 2023 Long Term Stewardship Inspection

<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 vegetative landfill caps (name) been properly maintained?	X		Grass height good, no woody plants on cap, gopher holes fixed
• Have any repairs been necessary? (i.e. regrading, filling, root removal)	X		Filled in gopher holes (although cover is deep enough that holes wouldn't affect buried materials)
• Have any activities impacted the slurry wall?		X	
• Eastern Drainage Ditch condition			N/A – sediment trap no longer there

<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		

CSX Transportation, Inc.
2023 Long Term Stewardship Inspection

Notes

- Storage shed – supplies, staging area for waste generated during sampling events.
- NAPL – during quarterly samplings, retrieved about 1/1.5 gallon of NAPL
- If need copies of annual report, stored at Bryan Park terminal
- 1st 5 year report as required by UECA due this year; basically reiterate what's in annual report, main differences are need seal of PE, need to send report to other people not just VDEQ
- Gophers burrowed in stormwater berm; fixed
- Mow semiannually
- Austin is the local field manager for site (Geosyntec)