



September 30, 2025

Mr. Craig Gendron
Stantec
5 Dartmouth Drive, Suite 200
Auburn, NH 03032-3984

via email: craig.gendron@stantec.com

RE: **Long-Term Stewardship Report**
Cooper Industries, LLC.
EPA ID VAD023717853

Dear Mr. Gendron:

The Virginia Department of Environmental Quality, Office of Remediation Programs (DEQ) has prepared the attached report following the Long-Term Stewardship inspection performed on September 24, 2025 at the former Cooper Industries, LLC site located in Earlysville, Virginia. The inspection found no outstanding items with compliance of engineering and institutional controls, with the exception of documentation of the change in operation of the facility potable water system.

You may contact me to discuss any questions. I can be reached at 804-720-4926 or by email at thomas.c.richardson@deq.virginia.gov.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Thomas C. Richardson', is written over a horizontal line.

Tom Richardson, Corrective Action Project Manager
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Thomas.c.richardson@deq.virginia.gov
Office of Remediation Programs
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ecc: Tara Mason – DEQ-CO
Kristin Koroncai – USEPA Region III

Long-Term Stewardship Assessment Report
Cooper Industries, LLC.
(Former Cooper Industries Facility – Earlysville, VA)
EPA ID VAD023717853

Prepared by: Tom Richardson

Date: September 30, 2025

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 Hazardous Waste Cleanup Facilities. In October 2024, EPA changed the name of its “Resource Conservation and Recovery Act Corrective Action Program” to the “Hazardous Waste Cleanup Program”. This rebranding is intended to increase broad understanding of the purpose of the program. The LTS assessment is conducted in two parts, consisting of a records review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

The Hazardous Waste Cleanup Program has identified key elements of effective Long-Term Stewardship for hazardous waste 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 former Cooper Industries, LLC (Cooper) facility is located at 395 Reas Ford Road in Earlysville, Virginia (the Site) and is currently owned by 4F, LLC. The Site is situated on approximately 80 acres of land, the majority located south of Reas Ford Road. An approximately 315,000 square foot manufacturing building sits on the northern end of the property. The facility conducted electrical component manufacturing operations, which began in 1962 when Panorama Corporation built the facility. Cooper acquired the Site in 1981. The electrical component manufacturing was discontinued in 1997. In 1999 Cooper sold the Site to 4F, LLC. Cooper retained responsibility for certain environmental liabilities at the Site including responsibility for Post-Closure Care and Site-Wide Corrective Action.

In 1984, volatile organic compounds (VOCs) were detected in one of the Site's production wells. Subsurface investigations began at the Site in 1988, and the source of contamination was determined to be a wastewater treatment system (WWTS) located south of the manufacturing building. The WWTS consisted of a final pond, ten sludge trenches, two sludge pits, two drain pits, and two concrete tanks. The WWTS received effluent from the manufacturing building between approximately 1970 and 1985. The primary contaminants of concern (COCs) identified at the Site include tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), cis-1,2-dichloroethene (cis-1,2-DCE), and chloroform.

The concrete tanks were cleaned & removed from the Site in late 1988 and PCE-impacted soil from the east drain pit was excavated and disposed of off-site. In 1990, the east drain pit and the final pond were closed in accordance with plans approved by EPA and DEQ. A vapor extraction system was installed in the location of the former drain pit to remove residual VOCs in soil. In September 1991, EPA concluded that the impacts to soil, surface water, and air were minimal and did not require further remedial action as documented in the RCRA Record of Decision (ROD) dated September 30, 1991.

A groundwater recovery & treatment system was constructed and started operating in September 1988 using two existing production wells (WS-1 and WS-5) plus three recovery wells (2D, 20D, and 26D) installed during the subsurface investigations. The configuration of the system has been modified several times since its initial startup. Advanced Remediation Technologies, LLC (ART) technology has been implemented at the Site since 2008. The ART technology combines in-situ air stripping, air sparging, soil vapor extraction (SVE), enhanced bioremediation/oxidation, and subsurface groundwater circulation. Six ART wells (ART-1 through -6) were installed at the Site. The current groundwater treatment system consists of a 60,000-gallon equalization tank, an air stripper, a series of sediment and sand filters, and finally four 1,000-pound granular activated carbon (GAC) filters to remove VOCs prior to discharge at Outfall 001 (permitted under Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0027065 which expires on June 30, 2027).

Current Site Status:

The main manufacturing building is now used for light assembly. Additional smaller buildings located to the south and east are used for a retail warehouse, a medical clinic, a storage garage, and a wastewater treatment plant. The two aquifers impacted by the Site are monitored by 17 wells in the shallow aquifer and 26 wells in the deep aquifer. The ART wells were discontinued in April 2017 with EPA's approval. To further address source area contamination, in-situ chemical oxidation (ISCO) was implemented by soil mixing in the vadose zone and Geoprobe injection in the upper aquifer under an Interim Remedial Action (IRA) in the summer of 2021. The recovery well network remains shutdown to allow for the continued evaluation of post-shutdown water quality trends. In accordance with the approved IRA Workplan, the remaining recovery well network was shut down on July 7, 2021. Minimal groundwater recovery and treatment has been implemented since that time to accommodate sampling under the VPDES permit and to keep the system operational. On November 6, 2023, DEQ approved the continued

shut down of the groundwater recovery and treatment system while groundwater trends are evaluated.

EPA approved the facility's Institutional Control Implementation and Assurance Plan (ICIAP) Workplan on July 9, 2014. The Institutional Controls (ICs) are restrictions recorded on the property deed in 1999 when the property was transferred from Cooper to 4F, LLC. Stantec, Cooper's environmental consultant for the Site, reviewed the property records at the Albemarle County Court House in 2024 and found the deed that includes the ICs has not been altered since its filing in 1999.

Element 1: Legal Authorities

The remedy is being implemented under an Administrative Order on Consent (Docket No. RCRA-III-058-CA) pursuant to Section 3008(h) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. section 6928(h) entered into by EPA and Cooper on April 17, 1992 (Consent Order). ICs are implemented through the ICIAP described above.

Element 2: Information Regarding Engineering and Institutional Controls

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

Associated Tax Parcel	Restriction
31-10 31-10A 31-10H 31-19 31-19A 31-21A 31-21B 31-21C 31-21D 31-21D1	1. Wells. No new water wells shall be created, maintained or used on the Property for any purpose except for serving the existing industrial buildings. Prior to digging or using any such new well to serve the existing buildings prior written consent must be obtained from Declarant and all relevant governmental agencies, including, but not limited to, the United States Environmental Protection Agency ("EPA"). No existing well, except those currently providing potable water to the existing buildings on the Property, shall be used as a source of water for any residential dwellings. 2. Health care, childcare, or school uses. Use of the Property for any health care, child care, or school uses is prohibited; provided, however, that an outpatient clinic may be operated from an improvement currently existing on the Property. No use of the property for an outpatient clinic shall be made until written approval is obtained from Declarant, which approval shall not be unreasonably withheld. 3. Residential use. No residential dwelling unit shall be constructed on the Property except that single-family residences may be constructed only on that portion of the Property identified on Exhibit A attached hereto if such portion of the Property is zoned for such use and only if (1) Declarant receives written confirmation from the EPA and all other relevant governmental agencies that Declarant has satisfactorily completed its obligations under the Final Administrative Order on Consent dated April 17, 1992 in the U.S. EPA Docket No. RCRA-III-058-CA and (2) there are no

Associated Tax Parcel	Restriction
	pending indemnification claims between Declarant and any subsequent owner of the Property or other third party. Further, no residential use of the Property may be made and no residence may be constructed or built without the prior written approval of the EPA and all other relevant governmental agencies and Declarant. Declarant's consent will not be unreasonably withheld. 4. Use of existing potable water system. No use shall be made of the existing potable water system unless the party using such system continues to operate, maintain and monitor the carbon filter treatment system to insure that the industrial buildings are continually provided with water of drinking water quality. 5. Access to Property. Declarant, its experts, consultants, employees and agents shall at all times have unlimited access to the Property and all buildings and improvements located thereon to sample, test, install, operate, repair, replace, monitor, treat and maintain all wells, groundwater, associated piping, groundwater pumping and treatment equipment or other facilities or equipment and do any and all other acts Declarant deems desirable in order to fulfill its environmental obligations. When Declarant completes its obligations to the EPA and all other relevant governmental agencies, Declarant shall have unlimited access to the Property to abandon, close or remove all property, equipment, piping, systems and materials used in connection with the remediation of the Property. 6. Other Development. Except as specifically authorized herein, no persons shall construct any new buildings, expand any existing building, or conduct any other soil excavation activities on the Property without prior written notice to Declarant and prior written consent from Declarant. Declarant's consent shall not be unreasonably withheld. 7. Enforcement. Enforcement of the provisions of this Declaration may be by proceedings at law and/or in equity and injunctive relief may be obtained. Any such action, suit or proceedings may be brought and maintained by Declarant. 8. Severability. Invalidation of any one or more provisions of this Declaration by any court of competent jurisdiction or otherwise shall in no way affect any other provisions which shall remain in full force and effect. 9. Amendment. This Declaration may be amended, modified or rescinded in whole or in part at any time by a written document signed by the Declarant in its sole discretion and recorded in the Clerk's Office of the Circuit Court of Albemarle County, Virginia.

Element 3 – Long-Term Facility Oversight, Monitoring and Maintenance and
Element 4 – Recordkeeping and Tracking

The Consent Order requires that the Facility properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Facility to achieve compliance with the conditions of this Consent Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including quality assurance procedures. The Consent Order also required a Corrective Measures Implementation Program Plan (CMIP) which was submitted in July of 1999 and amended in December 1999 with approval by EPA.

In accordance with the approved CMIP, the Facility conducts semiannual groundwater monitoring, submits annual groundwater monitoring reports, a biannual Operations and Maintenance (O&M) Assessment Report, bimonthly progress reports, and the ICIAP (the ICIAP Workplan was approved by EPA on July 9, 2014). The annual reports shall contain, at a minimum, groundwater monitoring results for each monitoring event including applicable summary tables and figures, remedial measures monitoring results, and evaluation of remedial effectiveness. The Facility shall continue to submit annual groundwater monitoring reports until clean-up requirements have been met. The last annual groundwater monitoring report was submitted on November 20, 2024.

In accordance with the approved IRA Workplan, the remaining recovery well network was shut down on July 7, 2021. Minimal groundwater recovery and treatment has been implemented since that time to accommodate sampling under the VPDES permit and to keep the system operational. On November 6, 2023, DEQ approved the continued shut down of the groundwater recovery and treatment system while groundwater trends are evaluated.

Under the ICIAP, the ICs are monitored by an annual site inspection to determine if any land use changes have been implemented. Biennially, the legal property ownership is reviewed to determine if the ICs remain unchanged and attached to the deed. The last biennial deed review was done in 2024 and the next will be in 2026. The results of these reviews are reported in the annual groundwater monitoring reports.

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

Facility has been redeveloped as a light industrial/business park with several businesses leasing space from the owner, 4F, LLC. Businesses include Albion, Inc., Axon, Crutchfield, Foster Well

& Pump, Gale Force 9, James River Grounds Management, Monster Fight Club, North Star Homes, and Skanska. The Site is currently zoned Light Industrial by Albemarle County.

Element 6 – Funding

Financial Assurance: Financial Assurance is required for this Facility and has been demonstrated to EPA in accordance with the Consent Order.

Element 7 – Enforcement

The Consent Order allows EPA 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 deed restrictions provide enforceability of the ICs for the Declarant on the Deed.

Element 8 – Enforceable Mechanisms

The current Site ICs include use restrictions, access and additional controls included in the 1999 Deed and accompanying Access Agreement and Declaration of Restrictions, Covenants, and Conditions. The Declaration states: “Enforcement of the provisions of this Declaration may be proceedings at law and/or in equity and injunctive relief may be obtained. Any such action, suit or proceedings may be brought and maintained by the Declarant.” Therefore, as the Declarant, Cooper may enforce the Declaration. Cooper will enforce the Declaration in the event that the conditions of the IC(s) have been violated by the Owner. Upon identifying a violation and enforcing the IC, Cooper will notify EPA in writing. With respect to the groundwater monitoring requirements of the Consent Order and CMIP, EPA’s enforcement powers are specified in the Consent Order and include stipulated penalties.

Element 9 – Dedicated Resources

Cooper Industries retains Stantec Consulting Services (Stantec) as the environmental consultant for the Site. Stantec retains Sullivan Electric, Inc. to maintain the well pumps and filters. Stantec coordinates daily system O&M and monitoring requirements, conducts the semiannual groundwater monitoring and reporting, collects quarterly carbon filter samples, and prepares and electronically submits the quarterly VPDES Discharge Monitoring Reports (DMRs).

Long-term Stewardship Site Visit: On September 24, 2025 DEQ conducted a long-term stewardship site visit to discuss and assess the status of the implemented remedies and ICs at the site. The attendees were:

- Craig Gendron, Stantec
- RP Meredith, Stantec
- Carroll Sullivan, Sullivan Electrical, Inc. (subcontractor to Stantec)
- Tara Mason, DEQ
- Tom Richardson, DEQ

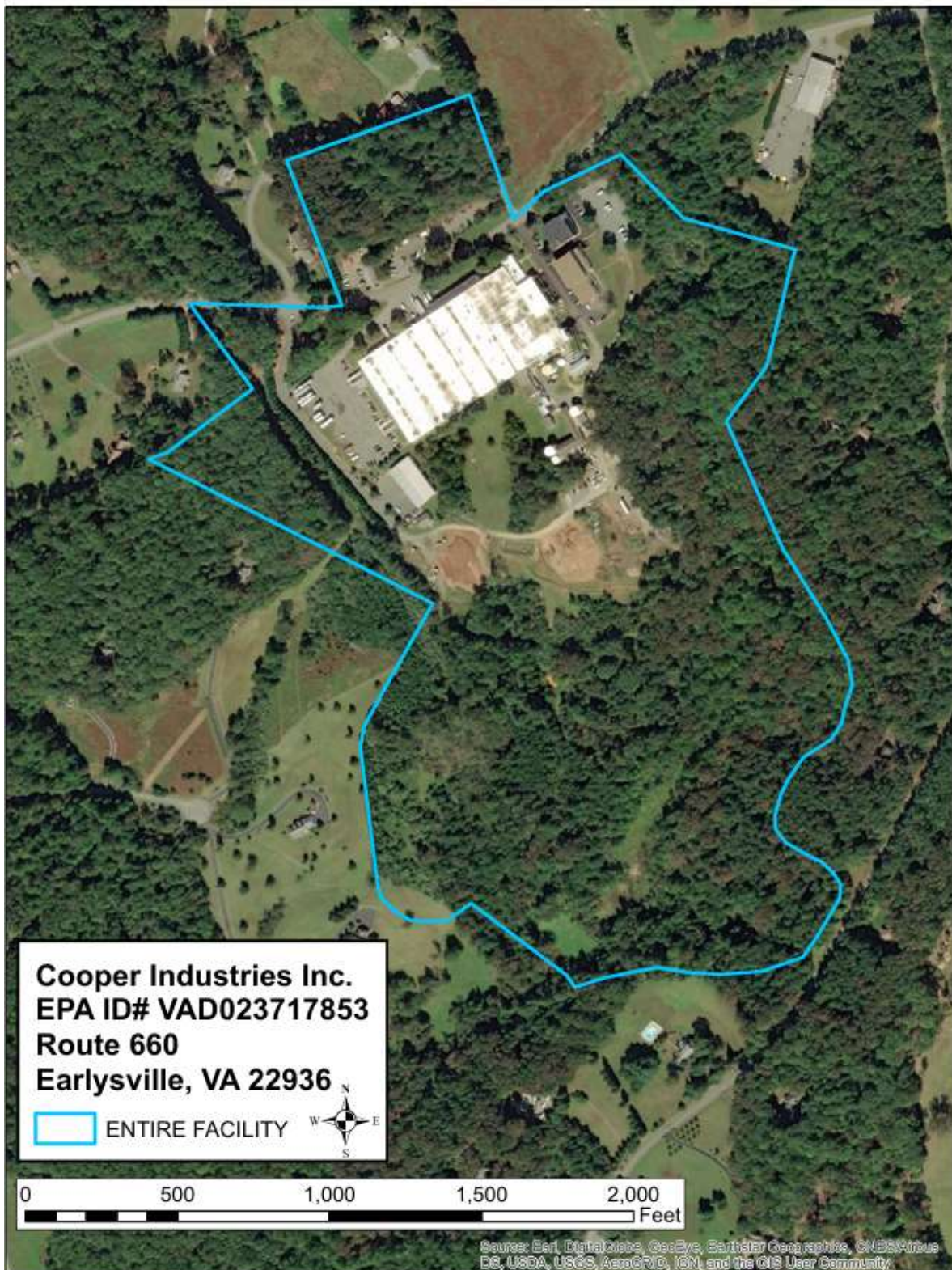
A field report is included below with this report. The following summary and additional notes are derived from the field report.

- Carbon filtration system is no longer used and semiannual sampling of potable wells is conducted to assure compliance with drinking water standards.
- Stantec will look into the possibility of entering into a UECA.
- Well W-4 is the primary potable water well for the facility, although well WS-3A is sometimes used as an alternate. The potable water system at the facility is sampled semiannually to assure compliance with drinking water standards.

Follow-up Activities: Follow up on practice of sampling potable wells in lieu of using carbon filtration system. Continue groundwater monitoring and O&M of the groundwater treatment system.

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

DEQ Long-Term Stewardship Facility Geospatial PDF
Former Cooper Facility – Earlysville, Virginia



Select Site Photos
Photos by: Tom Richardson
September 24, 2025

Eastern entrance to facility – looking south



Southeast corner of facility including water tower – looking south



Foster Well & Pump – looking northwest



Southern portion of facility – looking northeast



Southeastern portion of facility – looking east



Monitoring Well 31D – looking northwest



Inside groundwater treatment system building – looking west



LTS Checklist: former Cooper Industries - Earlysville

Site visit date: 9/24/2025

Time of visit: 0930

People Present (name/phone/e-mail):

- Craig Gendron, Stantec (603)206-7556, craig.gendron@stantec.com
- RP Meredith, Stantec
- Carroll Sullivan, Sullivan Electrical (subcontractor to Stantec)
- Tara Mason, DEQ
- Tom Richardson, DEQ

<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	Stantec will look into whether entering into a UECA for the site would be beneficial.
• 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>
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• Is groundwater onsite used for potable purposes?	X		Wells W-4 and WS-3A are used for facility water supply.
• 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 been decommissioned?		X	N/A
• Is there evidence of monitored natural attenuation occurring in groundwater?	X		

<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?			N/A

• Have any repairs been necessary? (i.e. regrading, filling, root removal)			N/A
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