# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
## Enforcement and Compliance Assurance Division
## Water Compliance Branch

## Clean Water Act (CWA) Inspection Report

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| **Program:** Industrial Stormwater | **Inspection Type:** Compliance Evaluation Inspection (CEI) |
| **Permittee Name:** Culpeper Wood Preservers | **NPDES/ICIS No.:** MAR05J04L |
| **Inspection Entry Date:** November 2, 2022<br>**Inspection Entry Time:** 8:15 AM | **Inspection Exit Date:** November 2, 2022<br>**Inspection Exit Time:** 11:30 AM |
| **Facility Inspected:** Culpeper Wood Preservers<br>840 Sterling Road, Lancaster, MA 01561 | **Lat, Long:** 42.43867°, -71.71269°<br>**NAICS / SIC Code:** 2491 – Wood Preserving |
| **EPA Region 1 Representative(s):** Abraham Elmir – EPA Region 1 Life Scientist/Lead Inspector, (617) 918-1583, elmir.abraham@epa.gov | |
| **State Representative(s):** None | |
| **On-site Facility Representative(s):** Mike Nuzzolilo, General Manager, (978) 368-7667, mnuzzolilo@culpeperwood.com | |
| **Responsible Official:** Mike Nuzzolilo, General Manager | |

| Name and Signature of Lead Inspector | Agency/Office/Phone Number | Date |
|---|---|---|
| Kelly Davis<br>Kelly Davis | Eastern Research Group (ERG)<br>(703) 633-1646<br>kelly.davis@erg.com | 12/20/2022 |

## INTRODUCTION:

On November 2, 2022, staff from U.S. Environmental Protection Agency (EPA) Region 1 and an EPA contractor from ERG (EPA Inspection Team) conducted an industrial stormwater Compliance Evaluation Inspection (CEI) at Culpeper Wood Preservers located at 840 Sterling Road, Lancaster, Massachusetts (hereinafter, the Facility). On May 28, 2021, the Facility submitted a Notice of Intent (NOI) to obtain coverage under the 2021 MSGP, MAR050000, which became effective on September 29, 2021, and expires on February 28, 2026. The Facility falls under Sector A – Timber Products, Subsector A2. As part of Subsector A2 permit requirements, the Facility is subject to benchmark monitoring of total recoverable arsenic and copper.

Ms. Kelly Davis (ERG, Lead Inspector) presented her Clean Water Act (CWA) inspector credential to the Facility representative, Mr. Mike Nuzzolilo, and conducted an opening conference. During the opening conference, the Lead Inspector explained the purpose of the CEI was to assess the Facility's compliance status with respect to EPA's 2021 Industrial Stormwater Multi-Sector General Permit (MSGP).

The weather at the time of the inspection was sunny and approximately 50°F. According to precipitation data from the National Oceanic and Atmospheric Administration (NOAA), the closest precipitation monitoring station in the town of Berlin received approximately 0.06 inches of rainfall the day before the inspection.

## FINDINGS AND OBSERVATIONS:

### Facility Description

The Facility, owned by Culpeper Wood Preservers, is a wood treating plant that includes the treatment and preservation of raw lumber and the storage of both untreated and treated lumber. The Facility treats approximately 41 million board-feet of raw lumber yearly using products such as Micronized Copper (MCA), "Ecolife", and Alkaline Copper Quaternary.

The Facility comprises 18 acres located off Sterling Road in Lancaster, Massachusetts. The Facility is bordered by another commercial lot to the west, Sterling Street to the north, and forested land to the east and south. The Facility contains a treated wood staging area in the north (refer to Appendix A, Photographs 1 and 2); a treatment plant and drip pad in the mid-west area (refer to Appendix A, Photographs 3, 4, and 7 through 11); an office building, garage, and a kiln in the mid-east area (refer to Appendix A, Photographs 5, 6, and 12); and a raw wood staging area in the mid-west and south areas (refer to Appendix A, Photographs 7, 10, 12 and 15). The Facility's outdoor industrial activities included the following:

- Northern portion – outdoor staging area for treated lumber
- Southern and mid-west portion – outdoor staging area for raw lumber

### Facility Drainage Systems and Discharges

The Facility representative stated that the Facility has four outfalls (Outfall 001 through 004) and one catch basin onsite.

- Stormwater from the northeast area of the Facility flows to Outfall 001, located at the mid-east perimeter (refer to Appendix A, Photograph 5).
- Stormwater from the northwest area of the Facility is conveyed southwest along the west perimeter via channelized flow in a trench. The trench connects with Outfall 003 located at the mid-south area of the Facility (refer to Appendix A, Photographs 14 through 16 and 22). The Facility representative did not know where Outfall 003 discharged (i.e., to a water of the U.S., to a Municipal Separate Storm Sewer System [MS4], or elsewhere). The Facility's SWPPP (March 30, 2022) on page 3-7 states that "any excess runoff flows into nearby outfalls, numbered 1-4, then into Goodridge Brook, and eventually to the Nashua River." The Facility representative stated the benchmark monitoring samples are taken upgradient of Outfall 003 (refer to Appendix A, Photograph 14).
- The SWPPP identifies another outfall, Outfall 004, that the Facility representative stated does not receive stormwater flow (refer to Appendix A, Photograph 17). Instead of discharging through Outfall 004, stormwater infiltrates into the ground along the mid-west perimeter.
- Stormwater from the south area of the Facility flows either to a catch basin located in the south area of the Facility or to Outfall 002 located at the south perimeter (refer to Appendix A, Photographs 18 through 21). The Facility representative did not know to where the catch basin discharges. The Facility representative stated Goodridge Brook is located south of Outfall 002, following south along a swale created by the raised railroad tracks.

The town of Lancaster maintains a Phase II NPDES MS4 permit.

### Sampling and Records

At the time of the inspection, the EPA Inspection Team reviewed the following records provided onsite:

a. Stormwater Pollution Prevention Plan (SWPPP) dated March 30, 2019 (not signed) (refer to Appendix B, Exhibit 1)
b. Monthly Facility Inspection Reports – One monthly from January 27, 2021 through October 24, 2022
c. Quarterly Visual Assessment Forms – first quarter 2021 through fourth quarter 2022
d. Coordination with Irwin Engineers about steps to address an AIM triggering event (September 16, 2021) (refer to Appendix B, Exhibit 2)
e. Coordination with GZA GeoEnvironmental about redesigning the site drainage (August 18, 2022) (refer to Appendix B, Exhibit 3)
f. A site map (refer to Appendix B, Exhibit 4)

On November 7, 2022, the EPA Inspection Team requested, and on November 22, 2022 received, the following records from the Facility representative:

a. SWPPP dated March 30, 2022 (signed) (refer to Appendix B, Exhibit 5)
b. Annual compliance evaluation reports (May 5, 2020; May 18, 2021; April 12, 2022)

**Observations**

The Facility representative stated the Facility receives raw lumber via railcar at the southwest perimeter. The EPA Inspection Team observed staged raw lumber in the south area and mid-west area of the Facility. Raw lumber is dried in the kiln and/or chemically treated in the treatment plant inside which treatment chemicals are stored (refer to Appendix A, Photographs 7, 10, 12, and 15). Chemically treated wood dries on a covered and contained drip pad adjacent to the treatment plant for approximately 24 to 48 hours before it is moved to the north concrete staging area for outside storage (refer to Appendix A, Photograph 1 through 4, 7, and 10). Lumber is visually assessed for dryness before it is placed in the outdoor staging area. The treated lumber sits for approximately 24 to 48 hours before it is shipped to Lowes Home Improvement facilities. The Facility representatives stated treated wood is not hosed down.

The Facility owns approximately 17 forklifts, a front-end loader, and a bobcat. This equipment is stored outdoors when not in use. The equipment is fueled from a 500-gallon diesel aboveground storage tank (AST). The EPA Inspection Team observed the AST inside the treatment plant, along the south wall (refer to Appendix A, Photographs 8 and 9). The EPA Inspection Team observed a spill kit inside the treatment plant (refer to Appendix A, Photograph 11). The EPA Inspection Team observed that the area outside the fueling area where vehicles pull up to the AST for fueling is graded down towards the fueling area.

Routine vehicle maintenance, including replacement of fluids and battery replacement, occurs inside the garage. Non-routine maintenance is performed in the garage onsite by outside contractors. Batteries and used oil are stored inside the garage and the Facility representative stated the garage does not have internal floor drains. The Facility representative stated used oil is picked up and removed by a contractor, Safety-Kleen Systems, and oil filters are crushed and recycled. The EPA Inspection Team observed a 250-gallon diesel AST located against the garage's east wall and a 500-gallon diesel AST south of the kiln (refer to Appendix A, Photographs 6 and 13). The AST's were covered and within secondary containment.

## CLOSING:

At the conclusion of the inspection, the EPA Inspection Team held a closing conference with the Facility representatives and discussed the following preliminary findings and observations of the inspection. The closing conference began at 11:15 AM (EST) and concluded at approximately 11:30 AM (EST).

## POTENTIAL NONCOMPLIANCE ITEMS:

1. Permit Part 6.2.7 states, "You must sign and date your SWPPP in accordance with Appendix A, Subsection 11."

   At the time of the inspection, the Lead Inspector identified that the onsite 2019 SWPPP had not been signed (refer to Appendix B, Exhibit 1). The Facility emailed the 2022 SWPPP to the Lead Inspector on November 11, 2022 that was certified by Mr. Mike Nuzzolilo on April 8, 2022 (refer to Appendix B, Exhibit 5).

2. Permit Part 6.5 states, "You are required to keep the following inspection, monitoring, and certification records with your SWPPP that together keep your records complete and up-to-date, and demonstrate your full compliance with the conditions of this permit:
   6.5.1 A copy of the NOI submitted to EPA along with any correspondence exchanged between you and EPA specific to coverage under this permit;
   6.5.2 A copy of the authorization email you receive from the EPA assigning your NPDES ID;
   6.5.3 A copy of this permit (either a hard copy or an electronic copy easily available to SWPPP personnel)"

   The EPA Inspection Team observed that the onsite SWPPP did not include a copy of the NOI, the authorization email, or a copy of the permit. The 2022 SWPPP also did not include these documents.

3. Permit Part 6.2.2.3 states the permittee must, "Provide a map showing:
   a. Boundaries of the property and the size of the property in acres…
   c. Directions of stormwater flow (use arrows), including flows with a significant potential to cause soil erosion…
   g. Locations of potential pollutant sources identified under Part 6.2.3.2…
   i. Locations of all stormwater monitoring points;
   j. Locations of stormwater inlets and discharge points, with a unique identification code for each discharge point (e.g., 001, 002), indicating if you are treating one or more discharge points as "substantially identical" under Parts 3.2.4.5, 6.2.5.3, and 4.1.1, and an approximate outline of the areas draining to each discharge point;
   k. If applicable, municipal separate storm sewer systems (MS4s) and where your stormwater discharges to them…
   m. Locations of the following activities where such activities are exposed to precipitation:
      i. fueling stations;
      ii. vehicle and equipment maintenance and/or cleaning areas;
      iii. loading/unloading areas;
      iv. locations used for the treatment, storage, or disposal of wastes;
      v. liquid storage tanks;
      vi. processing and storage areas;

vii. immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
viii. transfer areas for substances in bulk;
ix. machinery"

The Lead Inspector observed that the onsite map from the 2019 SWPPP did not include the size of the property in acres, directions of stormwater flow, or locations of potential pollutant sources such as locations of AST tanks (refer to Appendix B, Exhibit 4). The map also did not include locations of stormwater monitoring points and the outdoor portion of the fueling station at the treatment plant. The Facility representative stated that the location depicted on the map of Outfall 001 was inaccurate, and that it actually was located at the mid-east perimeter (refer to Appendix A, Photograph 5). The Facility representative also stated that the location depicted on the map of Outfall 002 was inaccurate and that it actually was located at the southern-most point of the Facility (refer to Appendix A, Photographs 20 and 21).

The site map provided after the inspection with the 2022 SWPPP is the same as the 2019 SWPPP map with the exceptions that the 2022 SWPPP map does identify the size of the property in acres and the locations of AST tanks (refer to Appendix B, Exhibit 5).

4. Permit Part 3.2.1 states, "Once each quarter for your entire permit coverage, you must collect a stormwater sample from each discharge point … and conduct a visual assessment of each of these samples."

   The Facility's NOI certified on May 28, 2021 stated that the Facility has four outfalls (Outfalls 001, 002, 003, and 004). The Facility did not consistently conduct visual outfall assessments from second quarter of 2021 through the fourth quarter 2022 as shown in Table 1.

*Table 1: Quarters When Visual Assessments Were Performed at Outfalls 001-004 from Quarter 2, 2021 Through Quarter 4, 2022*

| | **Outfall 001** | **Outfall 002** | **Outfall 003** | **Outfall 004** |
|---|---|---|---|---|
| **Quarter 2, 2021** | Missing | Missing | Performed | Missing |
| **Quarter 3, 2021** | Missing | Performed | Missing | Missing |
| **Quarter 4, 2021** | Missing | Missing* | Performed | Missing |
| **Quarter 1, 2022** | Performed | Missing* | Missing* | Missing |
| **Quarter 2, 2022** | Performed | Missing* | Missing* | Missing |
| **Quarter 3, 2022** | Performed | Missing* | Missing* | Missing |
| **Quarter 4, 2022** | Performed | Missing | Missing | Missing |

*= Visual assessments were not performed although sampling results were sent to Net-DMR.

   The Facility representative stated that visual assessments were not performed during missing quarters because they did not receive flow during that quarter, however the Facility collected and submitted benchmark monitoring samples to Net-DMR (see Potential Noncompliance Item #5) without completing visual assessments seven (7) times (starred in Table 1).

5. Permit Part 5.2.2 states, "If an annual average exceeds an applicable benchmark threshold based on the following events, the AIM [Addition Implementation Measures] requirements have been triggered for that benchmark parameter. You must follow the corresponding AIM-level responses and deadlines described in

Parts 5.2.3, 5.2.4, and 5.2.5 unless you qualify for an exception under Part 5.2.6. An annual average exceedance for a parameter can occur if:

- 5.2.2.1 The four-quarterly annual average for a parameter exceeds the benchmark threshold, or
- 5.2.2.2 Fewer than four quarterly samples are collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter. This result indicates an exceedance is mathematically certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold)."

Permit Part 5.2.3.1 states, "If any modifications to or additional control measures are necessary in response to AIM Level 1, you must implement those modifications or control measures within 14 days of receipt of laboratory results, unless doing so within 14 days is infeasible. If doing so within 14 days is infeasible, you must document per Part 5.3 why it is infeasible and implement such modifications within 45 days."

The Facility reported the following benchmark exceedances of copper from July 1, 2021 to June 30, 2022 as shown in Table 2. The Facility's arsenic levels did not exceed the benchmark concentration.

*Table 2: Total Recoverable Copper Benchmark Exceedances (µg/L) from Quarter 3, 2021 through Quarter 3, 2022*

| Quarter | Limit | Four Times Parameter | Outfall 001 | Outfall 002 | Outfall 003 | Outfall 004 |
|---|---|---|---|---|---|---|
| Quarter 3, 2021 | 5.19 | 20.8 | N/A* | Not Received | Not Received | N/A* |
| Quarter 4, 2021 | 5.19 | 20.8 | Not Received | 85.7 | 91 | Not Received |
| Quarter 1, 2022 | 5.19 | 20.8 | 5380 | 2300 | 2330 | N/A* |
| Quarter 2, 2022 | 5.19 | 20.8 | 1430 | 1370 | 1420 | N/A* |
| Quarter 3, 2022 | 5.19 | 20.8 | 3790 | 659 | 892 | N/A* |

N/A* = Outfall did not have measurable flow during the quarter.

All measured total recoverable copper events trigger AIM action levels because each sample exceeds four times the parameter limit of 5.19 µg/L such that an exceedance of the benchmark is mathematically certain for four quarters of sampling. The Facility representative stated that to address copper exceedances, the Facility has multiple plans, including coordinating with both Irwin Engineer and GZA GeoEnvironmental, Inc. on site redesign projects (refer to Appendix B, Exhibits 2 and 3).

- The Facility is planning to repave the site with asphalt. The Facility representative stated that the surface of the Facility is contaminated with arsenic and copper due to the Facility's previous use of treatment materials that contained those elements (before the current permit term). The Facility representative stated the asphalt would cap the chemicals and prevent their contaminating stormwater runoff. The Facility representative estimated that the project will be complete in the spring of 2023.
- The Facility contracted GZA GeoEnvironmental, Inc. to redesign Facility stormwater drainage towards treatment methods before reaching Outfalls 001, 002, and 003. This includes performing maintenance on the stormwater trench along the west perimeter of the Facility to direct channelized flow towards rip rap before reaching Outfall 003. The Facility representative stated the area that drains to Outfall 002 is also being redesigned, but that plans had not been finalized. The Facility representative stated that designs were not finalized but that construction would start approximately in 2023.

- The Facility contracted Irwin Engineers to perform an evaluation of the Facility's current outfall conditions and associated control measures. Irwin Engineers also plans to take samples from the outfalls and Goodridge Brook and review options to achieve AIM compliance.

The Facility's 2021 Annual Report stated the Facility was in AIM Level 2 (refer to Appendix B, Exhibit 6). The Annual Report also stated the Facility would install filter units near Outfall 003, regrade the area to prevent stormwater flow from bypassing the structural control, and begin construction by spring 2022. At the time of the inspection, the Facility had not begun any of the planned actions.

6. Permit Part 7.3.4 states, "…for any of your monitored discharge points that did not have a discharge within the reporting period, using Net-DMR, you must report that no discharges occurred for that discharge point no later than 30 days after the end of the reporting period."

   The Facility did not submit sample results for Outfall 002 and Outfall 003 during the third quarter of 2021 and Outfall 001 and Outfall 004 during the fourth quarter of 2021. The Facility failed to state if the outfalls did not receive measurable flow.

7. Permit Part 2.1.2.8.b states, "Personnel must be trained in at least the following if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):
   i. An overview of what is in the SWPPP;
   ii. Spill response procedures, good housekeeping, maintenance requirements, and material management practices;
   iii. The location of all the controls required by this permit, and how they are to be maintained;
   iv. The proper procedures to follow with respect to the permit's pollution prevention requirements; and
   v. When and how to conduct inspections, record applicable findings, and take corrective actions; and
   vi. The facility's emergency procedures, if applicable per Part 2.1.1.8."

   Page 2-6 of the Facility's SWPPP (both the onsite 2019 SWPPP and the 2022 SWPPP) states, "Employees at the Culpeper facility are trained in the following areas, at least once per year:
   - Preventative measures, including spill prevention and responses, facility inspections and preventative maintenance. (All personnel)
   - The facility's SWPPP. (Conner Burke, Mike Nuzzolilo and Mark Plouffe)
   - Features and operations of the facility that are designed to minimize discharges of Section 313 water priority chemicals, particularly spill prevention procedures. (All personnel)
   - Annual Hazardous Waste Training. (All personnel)"

   The Facility representative stated that regular stormwater training is not performed, although he leads quarterly trainings that cover general safety and pollution prevention. The attendance of the training is not tracked, and the topics do not cover stormwater-related material.

**AREAS OF CONCERN:**

- The Facility representative stated benchmark monitoring samples are taken upgradient of Outfall 003 (refer to Appendix A, Photograph 14). Rip rap, sediment, and leaves are located in between the sampling location and Outfall 003.

- The Facility representative stated stormwater from the south area of the Facility flows either to a catch basin located in the south area of the Facility or to Outfall 002 located at the south perimeter (refer to Appendix A, Photographs 18 through 21). The Facility representative did not know where the catch basin discharged.

**ATTACHMENTS:**

Appendix A – Photograph Log
Appendix B – Exhibit Log