NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
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March 07, 2024

Warner Golden
Arxada
1200 Bluegrass Lakes Parkway
Alpharetta, Georgia, 30004

Re: Zinc Spill Assessment
Olin Corporation – Chemicals Group (Arch Chemicals, Inc) – 828018A
100 McKee Road, Rochester, Monroe County, New York, 14611

Warner Golden,

The New York State Department of Environmental Conservation – Division of Environmental Remediation (NYSDEC-DER) and New York State Department of Health – Bureau of Environmental Exposure Investigation (NYSDOH-BEEI), collectively referred to as the Departments, have completed their review of the revised 'Zinc Spill Assessment' Supplemental Remedial Investigation Work Plan (SRIWP) (electronically received on March 18, 2024) as prepared by Arxada.

In accordance with Title 6 of the New York Codes, Rules, and Regulations (NYCRR) part 375-1.6, the Departments have determined that with the inclusion of the following modifications, the workplan will address the requirements of the State Superfund Program.

The Department's **approve as modified below**:

1. Monitoring well B-17 must be included in the sampling program.
2. The workplan does not indicate what sampling method is planned for groundwater sampling. Groundwater sampling must be conducted in accordance with EPA low flow methodologies.
3. The workplan does not indicate what deliverables will be completed following the conclusion of work. A report discussing all onsite and offsite lab results, final boring depths, field observations, backfill information, PID readings, any recommendations etc.) must be compiled and submitted to the Departments for the review.

When the Departments issue a response of **approved as modified** for a given workplan, Title 6 of NYCRR part 375-1.6, requires you to choose one of the following responses and notify the Departments in writing within **15 days of the date of this letter**:

- Elect in writing your acceptance of the Department's approval "as modified" (no resubmission of the workplan is required) or,
- Invoke a Dispute Resolution in accordance with part 375-1.5(b)(2)

If accepting of the Departments' revisions, then this letter along with your written acceptance letter become the cover pages to the final workplan. No revision/resubmission of the workplan would be required. Within 10 days from notifying the Departments of acceptance, a physical copy of the final document should be placed in the document repository along with your acceptance letter and this letter as cover.

Prior to the initialization of field work, the Departments require a brief calendar field schedule to be submitted outlining field activities and reporting timelines associated with this work plan.

The Departments are happy to discuss all aspects of this letter to resolve any outstanding differences in a mutually agreeable manner, which addresses the requirements of the State Superfund Program. Please contact me at Joshuah.Klier@dec.ny.gov or at (585) 226-5357 to discuss any questions or concerns regarding these comments. Thank you for your continued efforts on this project.

Sincerely,

Joshuah J. Klier

Joshuah J. Klier, G.I.T.
Assistant Geologist | Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Region 8 – Hazardous Waste Remediation

ec: Luke Ferruzza, Arxada
Matt Dillon, Arxada
David Harris Jr., Arxada
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Mark Stelmack, MACTEC Engineering and Geology, P.C.
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February 27, 24

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Division of Environmental Remediation – Region 8
New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, NY, 14414

NYSDEC Spill Number – 2308545
Arch Chemicals, Inc.
100 McKee Road, Rochester, Monroe County, New York, 14611

Dear Mr. Klier,

This correspondence is in response to the questions from the NYSDEC-DER on our recent non-reportable spill to the ground of process water with dilute amounts of zinc. The spill consisted of 1,500 gallons of process water containing 15.4 lbs. of zinc, below the reportable quantity (RQ) of 100 lbs. The release was from an overhead pipe leak that was partially contained in a secondary containment dike. The release occurred on January 24, 2024 at approximately 20:00 EST and was spilled to a paved area and to a stone covered area along the rail bed near the secondary containment. We estimate that approximately 150 gallons were recovered from asphalt and did not reach gravel. The process water had a measured concentration of 1,229 ppm. Therefore this spill is not likely to have impacted soil above the groundwater protection standard of 2,480 ppm (the industrial area that was impacted is covered with gravel and has no ecological receptors).

The following are our responses to the NYSDEC questions related to the spill:

Questions:

1. Is Zinc contamination expected to impact the future operation of HW-1 or the current operation of vertical extraction wells?

   Response: Given the volume and concentration of the release Arxada does not anticipate any impact to the current or planned operation of the groundwater extraction and treatment system.

2. Was any Zinc waste captured or did it all infiltrate into the ground? Are impacts to the environment anticipated? Are Zinc concentrations currently measured in the ZAP building treatment outfall? The NYSDEC's Protection of Ecological Resources Soil Cleanup Objective for Zinc is 109 ppm.

   Response: A portion of 1500-gallon zinc wastewater release, estimated at 150 gallons, was captured before it could reach the ground above the area of horizontal well. This area is covered with gravel around the train tracks and does not have any ecological receptors. Due to the dilute nature of the spill we do not expect any impact to the environment. Zinc concentrations are

currently measured at the ZAP building outfall and monitored to maintain compliance with our county sewer permit.

3. HWR understands Arch is currently planning the design and specifications for the Groundwater Extraction and Treatment System (GWETS). While designs are still in the early stages, is it anticipated that Zinc impacted groundwater will be able to be treated by the GWETS system?

   Response: Arxada does not anticipate impacts to groundwater from the zinc release and therefore no provision for additional treatment of zinc is anticipated with the GWETS.

4. Was the pH of water known at the time of the pipe burst?

   Response: The pH of the water released was 7.0

Sincerely,

Matt Dillon
Director of Operations

Work Plan:

Project:

Zinc Spill Assessment

Planned Sampling Date:

Initiate within Fifteen (15) days after Work Plan approval by NYSDEC.

Planned Completion Date:

Sampling and return to original state expected to take one (1) day.

Project Details:

Arch Chemicals Inc (also known as Arxada) will be assessing soil contaminant concentrations for zinc after a site spill that was released to ground in the area of a railroad bed. A release of process water containing zinc flowed over pavement to an area measuring approximately thirty (30) square feet. Two (2) shallow borings are planned for the purpose of collecting soil samples for zinc analysis. The need for groundwater sampling is contingent on the results of zinc soil analysis.

Soil samples will be collected manually from zero (0) to one (1) foot initially. Zinc analysis will be performed on-site at the Arxada laboratory. A minimum of two samples will be collected as split samples for offsite analysis with Paradigm labs. If zinc concentrations exceed the soil cleanup objective for the protection of groundwater (2480 mg/kg - 6 CRR-NY 375-6.5 / Table 375-6.8(b)), additional samples will be collected for zinc analysis at 1-foot increments from 1 to 2 feet and 2 to 3 feet below ground surface to a maximum depth of 3 feet to further assess zinc concentrations with depth at each boring location.

The soil cuttings from each boring will be temporarily stored adjacent to the boring area and placed on poly liner until confirmed laboratory results are available and the NYSDEC has acknowledged that these materials may be used to backfill the holes. No material containing zinc in excess of the soil cleanup objective for restricted use of 10,000 mg/kg will be reused as cover material for the upper one (1) foot of the backfilled holes.

If zinc concentrations exceed the soil cleanup objective for the protection of groundwater, groundwater samples will be collected for zinc analysis from nearby wells MW-127 and PZ-109 during the next scheduled groundwater monitoring event (May 2024). These samples will be submitted to Paradigm Laboratories for analysis.

Underground Utilities:

A records search will be performed.

Environmental Conditions:

Boring locations are within the known boundary of potential soil contamination. There is potential for contaminated soil in the unsaturated soils at shallow depth. Groundwater contamination may be expected if zinc concentrations in soil are detected above the SCO for groundwater protection.

HAZWOPER Certification:

Contractor to perform the work will be Matrix Environmental Technologies Inc. (Matrix) and they are current with their certification.

Disposal Facilities:

Disposal of excavated materials is not anticipated for this scope. If required, Waste Technologies Services (WTS) will be hired to manage the sampling and disposal of the stockpiled material. Paradigm Labs will be hired to analyze the samples. Based on the sample results, a proper disposal site will be selected.

Analysis:

Environmental Sampling Analysis:

- Zinc

Back Fill Source:

Boreholes to be backfilled with soil spoils from corresponding boreholes, where applicable. After spoils are exhausted, bentonite will be used to bring the borehole to grade, and the finished top surface layer to match the pre-drilled surface (concrete, asphalt, or stone). There will be no importing of soil to the site for this scope.

Air Monitoring:

Air monitoring will consist of monitoring for VOCs using a PID or FID immediately downwind of the excavation activity. Grab samples will also be taken periodically during the excavation and monitored for VOCs. Action levels for VOCs are specified in the HASP. Individuals not directly involved with the drilling activity will be absent from the work area (> 20 ft). Since manual sampling by hand-auger or post-hole digger is planned, particulate monitoring is not planned.

Truck Wash:

Due to the relatively small size of the area of soil disturbance, a truck wash system will not be in place for exiting the facility.

Approve Truck Routes for Off-Site Disposal:

If required, spoils that have been analyzed will be sent to a proper disposal site chosen by our waste contractor, WTS. The most direct routes to these disposal sites will be used, avoiding all possible residential roads. All work will be performed in compliance with this EWP, 29 CFR 1910.120 and 29 CFR 1926 Subpart P.

Sampling Site:

Borings locations:

Bold red ‘X’ indicates the anticipated locations of borings, red tape indicates area of spill.