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August 18, 2020

Mr. Keith Linton
Retia USA LLC / Legacy Site Services LLC
1201 Louisiana Street, Suite 1800
Houston, TX 77002

Subject: Review of Case Status and Request for Additional Work
Arkema Coating Resins/Cook Composite/Former Freeman Chem
340 Railroad Street, Saukville, WI
BRRTS #: 02-46-000767, FID #: 246004330

Dear Mr. Linton:

The Wisconsin Department of Natural Resources (DNR) has been informed that Arkema Coating Resins is planning to demolish the on-site buildings at the site identified above ("the Site"). The DNR has recently completed a review of the status of this open environmental contamination case, and this letter identifies the additional work that is needed to meet federal and state regulatory requirements to address the reported contamination.

Corrective action at the Arkema Coating Resins/Cook Composite/Former Freeman Chem site is regulated by both federal and state authorities and managed by the DNR. Both the federal Resource Conservation and Recovery Act (RCRA) and Wisconsin Spills Law require responsible parties to take appropriate actions to protect human health and the environment at sites or facilities where there has been a discharge of a hazardous substance or there is evidence of environmental pollution.

The cleanup progress of sites regulated under RCRA is evaluated and tracked by comparing the Site activities with RCRA milestones. Sites including Arkema Coating Resins/Cook Composite/Former Freeman Chem are monitored on the RCRA 2020 baseline list and their cleanup progress is recorded. A review of the progress at the Site indicates that the progress towards many of these milestones is inadequate. Given that the Site is no longer in production and the structures on the Site are planned for demolition, an opportunity exists to conduct active remediations that may get the Site moving through the federal and state cleanup processes more efficiently and ultimately toward case closure.

Regulatory Background

This facility manufactured alkyd, polyester, and urethane synthetic resins beginning in 1949. In 1979, Saukville residents complained of odors in the water supply. Subsequently, in the 1980s, the US EPA identified hazardous substance contamination in groundwater and soil at the Site that were a result of plant operations.

In 1987, Freeman Chemical signed an administrative order on consent with the DNR and US EPA, Docket Number V-W-88-R-002, dated October 19, 1987 (the "Order"). Per the Order:

> "The US EPA or WDNR may determine that additional investigatory work, corrective measures, and/or engineering evaluation, in addition to any work detailed in the SOW (scope of work), is necessary to

thoroughly conduct corrective measures work at the facility. If the annual evaluation conducted under task 5B of the SOW determines that the corrective measures do not meet the stated objectives of such corrective measures, Respondent will submit a proposal for additional work."

Cook Composites and Polymers US (CCP) took ownership of the Site from Freeman Chemical and maintained responsibility for the Order. Total Petrochemicals (Total) owned CCP, and Total now maintains responsibility for the Site. Total's subsidiary, Retia USA LLC, manages Total's legacy environmental sites including the Site.

In 1995, CCP's consultant, RMT, completed a RCRA Facility Investigation (RFI). After evaluation of previous reports and conducting additional Site investigation activities, including hydraulic modeling and pump tests, the RFI report concluded that the following Areas of Concern (AOCs) are ongoing sources of groundwater contamination from soil contamination: AOC 1 (hazardous waste incinerator), AOC 2 (former dry well), AOC 3 (tank farm), AOC 5 (church ballfield). Subsequently, soil remedial actions occurred at the offsite AOC 5, but not in soil at the on-Site AOCs 1, 2, and 3.

In 1996, at the direction of the US EPA, CCP's consultant, Woodward Clyde, conducted a RCRA Corrective Measures study regarding the on-Site AOCs 1, 2, and 3. Woodward Clyde made the following conclusions:

- Substantial amounts of soil contamination are inaccessible due to overlying buildings, building foundations and the presence of subsurface utilities.
- Substantial amounts of soil contamination are below the water table thereby difficult to excavate.

Woodward Clyde's 1996 study concluded that the engineering controls (site capping by paving) and the continued operation of the existing groundwater extraction system (GWES), in operation since 1987, were the recommended remedial strategy as RCRA Corrective Measures.

Need to Complete the Site Investigation

While the facility remained in operation until 2015, soil investigations were conducted in the 1980s and 1990s mainly in the urethane lab and former hazardous waste incinerator area (AOC 1) and former dry well (AOC 2). Limited additional soil investigation was done in the church ballfield (AOC 5), the tank farm area (AOC 3), and the former air curtain solids incinerator and ash pile areas on the adjacent Logeman Brothers property (AOC 4). The DNR does not consider the extent of contamination to be fully delineated by these additional activities.

1. Degree and extent of contamination in all affected media.

   Wis. Admin. § NR 716.11(3)(a) requires the field investigation to determine the nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media. Additionally, Wis. Admin § NR 716.15(4)(c) and (d) require the site investigation report to include iso-concentration maps and cross sections to depict the hazardous substance concentrations in each environmental medium.

Additionally, you have recently directed your current consultant, Endpoint Solutions, Inc., to complete site investigation activities to evaluate the potential hazardous substance discharge of per- and polyfluoroalkyl substances (PFAS) at the Site. The DNR approved this scope of work on July 10, 2020.

Evaluation of the Interim Remedial Action

The Groundwater Extraction System (GWES) has been operating on the Site since 1987. Quarterly monitoring of the groundwater monitoring well network and municipal water supply wells occurred at the Site until 1993. The current approved sampling program began in 2005. A groundwater results and GWES performance evaluation report has been submitted to the DNR annually. While groundwater concentrations initially decreased by orders of magnitude, the concentrations have been generally stable since 1995. The DNR considers the GWES to be an interim remedial action to address the groundwater contamination. This remedial action must be evaluated according to the criteria in Wis. Admin. § NR722.07(4) with specific information requested for the following criteria:

1. Restoration time frame

   Wis. Stat.§ 292, 11(3) requires actions be taken to restore the environment to the extent practicable. Additionally, Wis. Admin. § NR722.07(4)(a)(4) requires an evaluation of the restoration time frame for each remedial action.

   After a 32-year interim action from 1987-2020, the DNR is requesting an updated evaluation of the restoration time frame for the impacted groundwater.

2. Long-term effectiveness

   Wis. Adm in.§ NR722.07(4)(a)(l) requires an evaluation of the long-term effectiveness of the remedial action, taking into account the degree to which the toxicity, mobility, and volume of contamination is expected to be reduced and the degree to which the remedial action is protective.

   An evaluation is needed to identify the degree, the toxicity, mobility, and volume of contamination has been reduced, after 32 years. Include a discussion of the protective conditions that have been provided by the remedial action.

<u>Submittal of an Updated Corrective Measures Study / Remedial Design Report</u>

Since the Site buildings will soon be demolished making remedial actions to address the soil contamination feasible, the DNR is requesting submittal of an updated Corrective Measures Study / Remedial Design Report that includes an evaluation of additional remedial action to reduce the mass and concentration of contamination that is continuing to act as ongoing sources, as identified by RMT in 1995. The remedial action must continue to protect the nearby municipal water supply based on additional source control, rather than depending on the GWES to control the contaminated groundwater plume in perpetuity.

Responsible parties shall submit to the DNR a design report for all remedial and interim actions, per Wis. Adm in.§ NR724.09. The remedial design report must incorporate the results of a complete site investigation and an evaluation of the 32-year interim action provided by the GWES.

1. Long-term monitoring

   Wis. Admin. § NR 724.17(3m))(f) requires that the responsible party provide an analysis of the cause and significance of any concentrations that attain or exceed specific environmental standards and any increases in concentrations that previously attained or exceeded specific environmental standards, including the factors specified in s. NR 140.24(1)(c) 1. to 10. for groundwater.

The remedial design report must include an evaluation of the long-term monitoring results in consideration of a strategy for case closure within a reasonable period of time.

2. Additional remedial action

   Wis. Admin. § NR 724.17(4)(c) states that the department (DNR) may require additional remedial action, pursuant to ch 292, Stats., based on the evaluation of monitoring results.

   After consideration of the site investigation results and an analysis of the long-term monitoring results from the GWES, the remedial design report must include an evaluation of additional actions that are necessary to restore the environment.

3. Redevelopment potential

   Wis. Admin. § NR 722.07(4)(a)3.i. states that the 'implementability' of appropriate remedial actions must take into account the redevelopment potential of the site once the remedy has been implemented.

   The remedial design report must include a discussion of the site's redevelopment potential with respect to the adjacent land uses, local ordinances, zoning, and any proposed remedy.

Plans for Site Demolition

Demolition activities are overseen by two programs in the DNR. The Air Management Program implements the DNR's Asbestos Program, which reduces the public's possible asbestos exposure. These regulations require facility owners and/or operators involved in demolition and renovation activities to pre-inspect the affected facility, file proper notification, and handle and dispose asbestos properly. The Waste & Materials Management Program provides requirements to manage construction and demolition (C&D) debris. Waste storage areas must be properly closed, and solid waste disposed appropriately. These DNR programs should be contacted by the appropriate party to ensure that planned demolition activities meet regulatory requirements.

Strategy for Case Closure

In Wisconsin, environmental contamination cases may close with residual contamination that remains protective by applying continuing obligations. Continuing obligations (COs) are legal requirements assigned to the site to maintain protective conditions with respect to the residual contamination. A combination of COs may be requested for case closure. COs are assigned based on the property's current use. A non-operating former industrial facility or vacant property would be considered as having a non-industrial use, regardless of the current zoning. The remedial design report should include an evaluation of potential COs that may be appropriate as this case moves through the investigation and remediation process towards case closure.

Schedule

The DNR is available to meet with you to provide technical assistance regarding this letter and to further discuss the need for these additional actions if you would like clarification or direction. Please contact us within the next 15 days, by September 2, 2020 to arrange a meeting.

In consideration of administrative code requirements, the DNR is requesting implementation of the following schedule:

- Per Wis. Admin. § NR 716.09(1), the DNR is requesting the submittal of a site investigation work plan within 60 days, by October 19, 2020, to address the above comments related to the incomplete site investigation. The DNR recommends that the work plan be submitted with a fee for DNR review.

- Per Wis. Admin. § NR 716.11(2), field investigation activities must begin within 90 days of submittal of the work plan.

- Per Wis. Admin. § NR 716.15, the DNR is requesting submittal of a Site Investigation Addendum Report to document completion of the site investigation to delineate the degree and extent of contamination remaining at the Site. This report must be submitted within 60 days after completion of the field investigation and receipt of laboratory data. The DNR recommends that this report be submitted with a fee for DNR review.

- Per Wis. Admin. § NR724.09, the DNR is requesting the submittal of an Updated Corrective Measures Study / Remedial Design Report within 90 days of the completion of the Site Investigation Addendum Report. The DNR recommends that this report be submitted with a fee for DNR review.

In Closing

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, or would like to arrange a meeting, please contact me, the DNR Project Manager, John Feeney, at 920-893-8523, or at johnm.feeney@wisconsin.gov.

Sincerely,

John Feeney, PG
Southeast Region Department of Natural Resources
Remediation & Redevelopment Program

cc: Mr. Bob Cigale, Endpoint Solutions Corp. (electronic copy)