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September 6, 2018

Oconomowoc Electroplating Co., Inc.
W2573 OAK ST
Ashippun, WI 53003

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT: Approval of Remedial Actions with Continuing Obligations
Oconomowoc Electroplating Superfund Site, W2573 Oak St., Ashippun, WI 53003
DNR BRRTS Activity #: 02-14-000905
FID #: 114004220
EPA WID006100275

Dear Property Owner:

The Department of Natural Resources (DNR) considers the remedial actions implemented at the Oconomowoc Electroplating Company, Inc. (OECI) Superfund site to be approved with continuing obligations. Current and future property owners must comply with the continuing obligations as explained in this letter until the conditions at the site no longer exist. The continuing obligations that apply are stated as conditions in this approval letter and are consistent with Wis. Stats. § 292.12 and Wis. Adm. Code ch. NR 722. They are meant to limit exposure to any remaining environmental contamination at the Property. Please read over this letter closely to ensure that you comply with all the conditions and continuing obligations. Provide this letter and all attachments to anyone who purchases, rents or leases this property from you.

This remedial action approval decision is based on the plans, data and correspondence submitted as part of the remedial action. Some of the pertinent information from report submittals are included as attachments in this letter. The DNR had reviewed the submittals for compliance with state laws and standards. The most-recent report submittal ("Annual Groundwater Monitoring Report") received on Sept. 7, 2017, is available from the Wisconsin Remediation and Redevelopment Database (WRRD) at: http://dnr.wi.gov/topic/Brownfields/WRRD.html. Background information on the contamination at the site is provided towards the end of this letter.

This remedial action approval with continuing obligations is intended to meet the intent of the Institutional Control Implementation and Assurance Plan required by the U.S. Environmental Protection Agency (EPA) at Superfund sites. The continuing obligations are based on the property being used for industrial purposes. Currently, the property is a vacant grassy lot with a few trees. The continuing obligations outlined in this letter apply to 3.09 acres comprising Parcel "3041-010" shown at: http://dodgecowi.wgxtreme.com/?zoom=13&lat=634927&lon=931412.

The Title to the OECI Site property is still in the name of the Oconomowoc Electroplating Company, Inc. The U.S. EPA has had a federal tax lien on the property since 1988 (Attachment 2). The owner has disappeared, and the property has been in tax delinquency since 1994. In conjunction with the U.S EPA's ROD-Amendment (2011) for the OECI site, institutional controls (ICs) are needed. The ICs will consist of restricting groundwater use and land use and implementing those restrictions. The U.S. EPA and the WDNR will use WDNR's Wisconsin Remediation and Redevelopment Database (WRRD) and authority to impose continuing obligations in this approval letter so as to ensure the protectiveness of the remedial actions at the OECI property. The DNR has the authority under Wis. Stats. § 292.12 (2) to impose limitations and conditions on a property to ensure that the conditions at the site remain protective of public health, safety and welfare, and the environment.

Continuing Obligations

The continuing obligations for this site are summarized below. Further details of the requirements are found in the section titled Remedial Action Approval Conditions.

- Continued environmental monitoring is required. Groundwater contamination is currently present above Wis. Adm. Code ch. NR 140 enforcement standards.
- Prior DNR approval is required before a new well can be constructed.
- If any of the remaining monitoring wells not used in the current monitoring are found, they must be properly filled and sealed and their fill and seal forms must be submitted to the DNR.
- The current soil cover overlying the contaminated soil must be maintained. There must be no breaching of the current soil cover. Any proposed changes to this barrier must have prior written approval from the DNR. Any residual soil contamination resulting from excavation or soil removal must be properly managed.
- The property is currently zoned industrial and land use is restricted to industrial. Before the land use may be changed from industrial to non-industrial, additional environmental work must be completed.
- The remaining soil contamination could result in vapor intrusion if future construction activities occur. As such, vapor control technologies will be required for occupied buildings, unless the property owner assesses the potential for vapor intrusion and the DNR agrees that vapor control technologies are not needed.

Prohibited Activities

Certain activities are prohibited at this property to maintain the soil cover intended to prevent contact with the contaminated soil and groundwater below. You are required to notify the DNR before disturbing or modifying the site's soil cover, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where the soil cover is required unless prior written approval has been obtained from the DNR:

- removal of the existing barrier or cover;
- replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

Remedial Action Approval Conditions

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property. Any change in the current site condition must be reported in writing to the DNR and any proposed change to the current site condition must be approved in writing by the DNR.

Residual Groundwater Contamination (Wis. Adm. Code ch. NR 140)
Groundwater contamination greater than enforcement standards is present on this contaminated property, as shown on the attached maps, Figures 6 thru 9. If you intend to construct a new well, you'll need prior DNR approval.

Continued Groundwater Monitoring Required (Wis. Adm. Code §§ NR 726.05 (9), NR 726.15 (2) (c))
Continued environmental monitoring is required. Attachment 14 shows the monitoring wells and private wells for monitoring. The sampling results must be submitted to the DNR within 10 business days of receipt of the results. An annual inspection of the wells is required to verify the integrity of the monitoring wells. Keep the inspection log up to date and on site. It needs to be submitted to the DNR only upon request. The DNR Form 4400-305 for the inspection log can be found at https://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf. You may be held liable for any problems associated with the monitoring wells if they create a conduit for contaminants to enter groundwater.

Fill and Seal Lost Monitoring Wells (Wis. Adm. Code §§ NR 141.25, NR 725.05). If any of the remaining monitoring wells not used in the current monitoring are found, they must be properly filled and sealed, and their fill and seal forms must be submitted to the DNR.

Residual Soil Contamination (Wis. Adm. Code ch. NR 718, chs. 500 to 536, or Wis. Stats. ch. 289)
If soil is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination (elevated metals or VOCs) is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with Wis. Adm. Code ch. NR 718 with prior DNR approval.

In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Cover or Barrier (Wis. Stats. § 292.12 (2) (a), Wis. Adm. Code §§ NR 726.15, NR 727.07)
The soil cover that exists throughout the property shall be maintained in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

The cover approved for this closure was designed to be protective for an industrial use setting. Before using the property for non-industrial purposes, you must notify the DNR at least 45 days before taking an action, to determine if additional response actions are warranted. A cover or barrier for industrial land uses may not be protective enough if the use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings.

A request may be made to modify or replace a cover or barrier. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation.

Industrial Soil Standards (Wis. Adm. Code §§ NR 726.15, NR 727.07)
The soil contaminants of concern include VOCs. At a depth of 10 ft, soil-TCE (trichloroethylene) may still be as high as 36 mg/kg. The estimated extent of soil-TCE contamination (typically deeper than 4 ft) in 2012 prior to the deep in-situ soil mixing (ISSM) is shown on Attachment 6 - OECI Soil-TCE Data.

This property may not be used or developed for a residential, commercial, agricultural or other non-industrial use, unless prior written approval has been obtained from the DNR. The property owner shall notify the DNR at least 45 days before changing the use. An investigation and remedial action to meet applicable soil cleanup standards may be required at that time.

Vapor Mitigation or Evaluation (Wis. Stats. § 292.12 (2), , Wis. Adm. Code §§ NR 726.15, NR 727.07)
Vapor intrusion is the movement of vapors coming from volatile chemicals in the soil or groundwater, into buildings where people may breathe air contaminated by the vapors. Vapor mitigation systems are used to interrupt the pathway, thereby reducing or preventing vapors from moving into the building.

Future Concern: VOCs (TCE and VC) remain in soil and groundwater at the property, as shown on Attachment 6 (soil) and Attachments 7 thru 12 (groundwater), at levels that may be of concern for vapor intrusion in the future, depending on construction and occupancy of a building. Before a building is constructed, the property owner must notify the DNR at least 45 days before the change. Vapor control technologies are required for construction of occupied buildings unless the property owner assesses the vapor pathway and DNR agrees that vapor control technologies are not needed.

This continuing obligation also applies to the right-of-way holders surrounding the OECI property.

Wisconsin Remediation and Redevelopment Database (WRRD)

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at: http://dnr.wi.gov/topic/Brownfields/WRRD.html, to provide public notice of residual contamination and continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), under the Contaminated & Cleaned Up Sites layer, at the same web address. Information about the site, including this remedial action approval letter, will be included in the database.

DNR approval prior to well construction or reconstruction is required in accordance with Wis. Adm. Code § NR 812.09 (4) (w). This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at https://dnr.wi.gov/files/PDF/forms/3300/3300-254.pdf.

All site information is also on file at the South Central Region Fitchburg DNR office, at 3911 Fish Hatchery Road, Fitchburg, WI 53711. This letter and other site information can be found as a Portable Document Format (PDF) in BRRTS on the Web.

Background Information on the Contamination at the OECI Property

The OECI property is located in the town of Ashippun, Dodge County, Wisconsin, as shown on Attachment 1 - Site Location. The property is shown as the 3.09-acre Parcel "3041-010" at: http://dodgecowi.wgxtreme.com/?zoom=13&lat=634927&lon=931412. The property from 1957 to 1990 was the site of OECI's industrial operation, performing metal degreasing/cleaning that used chlorinated solvents, and metal plating that used cyanide and heavy metals, including chromium, cadmium, copper, nickel, tin, and zinc in its process. During that time, the company discharged untreated wastewater into the nearby wetlands and Davy Creek. Two unlined lagoons on the western portion of the property had contained electroplating sludge. These lagoons had leaked and sometimes overflowed. Solvents primarily used inside the facility had also seeped into the ground. Volatile organic compounds (VOCs) made their way into the groundwater beneath and further downgradient of the site.

The OECI site has been in the U.S. EPA National Priorities List as a Superfund site since 1984. The EPA's Record of Decision (ROD) in 1990 called for the excavation and removal of the lagoon sludge, contaminated soil and contaminated portion of the nearby wetland, and the pump and treat (P/T) of the groundwater contaminant plume. The former OECI facility building was demolished and was removed in 1992, together with associated excavated contaminated soil. The lagoon sludge, additional contaminated soil, and sediments from the wetland and Davy Creek were further removed in 1994. The ROD-required P/T groundwater treatment system was installed in 1995. It is housed in an 80' by 70' remediation building constructed on the east side of the site. The P/T system started in 1996; however, with its relatively high operating cost, a long projected operating time and observed ineffectiveness (*e.g.*, plume underneath the nearby residences immediately west of the site wasn't being captured by the extraction system), the P/T system was shut down in July 2005. The P/T system's 5 groundwater extraction wells were filled and sealed (*i.e.*, properly abandoned) in 2009.

The EPA issued a ROD-Amendment in 2011 which changed the groundwater remediation from P/T to monitored natural attenuation (MNA) with in-situ source treatment of buried soil that is still contaminated. A gridded Geoprobe investigation with a membrane interface probe (MIP) in 2012 delineated several subareas with still-high soil-trichloroethylene (TCE). The largest of the high-TCE subareas was located below the former OECI facility building (razed in 1992). The remedial action that followed the MIP investigation was *in situ* soil mixing (ISSM) in July 2013 at depths that ranged from 5 to 18 ft at those subareas. Briefly, the ISSM utilized a Lang tool to mix the soil at depth with Daramend, a proprietary product with zero-valent iron in a soluble substrate designed to promote reductive TCE dechlorination. The initial post–ISSM groundwater samples occurred in November 2013.

Post ISSM, starting in October 2014, the DNR has assumed the financial responsibility for the oversight of the MNA long-term remedial action at the site. In March 2017, the 80' by 70' groundwater remediation building and its concrete foundation, together with existing site pavement (including driveway and parking), were demolished and removed from the site. The water supply well for the remediation building (cased to 105', and open to 201 ft depth) was filled and sealed (*i.e.*, properly abandoned) as part of demolition project. The area with the former remediation building was backfilled and regraded. Currently, the property is a vacant grassy lot with a few trees (Attachment 4).

Additional site information (status, 5-year reviews, etc.) is available at the EPA webpage for OECI site at: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0504986. Site information is also available at the DNR. Attachment 19 has 2 DNR webpages where complete site reports and groundwater monitoring data can be obtained.

In Closing

Please be aware that the DNR may impose additional conditions, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare or to the environment.

If you have any questions regarding the continuing obligations for this site, or anything outlined in this letter, please contact Resty Pelayo at (608)-267-3539, or at Aristeo.Pelayo@wisconsin.gov.

Sincerely,

Steve L. Martin
South Central Region Team Supervisor
Remediation & Redevelopment Program

Attachments: (Maps; if not map, info source in square brackets[])

- 1, OECI Site Location
- 2, Federal Tax Lien [Dodge County Info]
- 3, Dodge County Zoning
- 4, OECI Property in 2012 and 2017
- 5, Site Layout
- 6, OECI Soil-TCE (Trichloroethene) Contamination
- 7, Shallow Groundwater Flow and Groundwater TCE Isoconcentrations
- 8, Shallow Groundwater Flow and Groundwater VC Isoconcentrations
- 9, Mid-Depth Groundwater Flow and Groundwater TCE Isoconcentrations
- 10, Mid-Depth Groundwater Flow and Groundwater VC Isoconcentrations
- 11, Bedrock Groundwater Flow and Bedrock TCE
- 12, Bedrock Groundwater Flow and Bedrock VC
- 13, TCE trends from MWs, and VOC Trends from PWs [Info from DNR]
- 14, OECI Wells for DNR Monitoring
- 15, OECI and Surrounding Area Soils
- 16, Regional Bedrock Geology and Hydrology
- 17, Site Cross-Section [2004 RMT Report]
- 18, Site Cross-Section [2004 RMT Report]
- 19, Two WebPages with OECI Reports and Data [DNR Internet Pages]
- 20, Wells for Filling and Sealing (Proper Abandonment) If Found [List from DNR]
- 21, Five Year Review Report [U.S. EPA Reg. 5]

cc: Bill Ryan, U.S. EPA Region 5
Resty Pelayo, DNR Madison, RR/5
Dodge County Administrator