EXPLANATION OF SIGNIFICANT DIFFERENCE BATAVIA IRON AND METAL CO., INC. 301 BANK STREET, BATAVIA, NY

City of Batavia / Genesee County / Site No. 819018 / April 2024

Prepared by the New York State Department of Environmental Conservation Division of Environmental Remediation

NEW YORK

STATE OF OPPORTUNITY **Department of**

Environmental Conservation

1.0 INTRODUCTION

The purpose of this notice is to describe the progress of the remedial actions at the Batavia Iron and Metal Company, Inc Site and to document changes in the overall Site remedy. The Site is part of NYSDEC's Superfund program, and the Record of Decision (ROD) was issued in April 2013. The ROD included a description of the selected remedy for the four areas of concern (AOC) at the Site. Each of the AOCs are shown on Figure 1 and are described as follows:

- AOC #1 PCB and Pesticide impacted fill located adjacent to (southeast of) the on-site building.
- AOC #2 PCB and metals impacted soil and fill (surface and sub-surface) throughout the property.
- AOC #3 Solid waste, otherwise noted as debris piles, present throughout the site.
- AOC #4 Metals impacted soil at off-site properties located at 303 and 305 Bank Street.

Following the issuance of the ROD additional investigations to support remedial activities at each of the AOCs were conducted. Through these investigations and during remedial activities, data collected resulted in changes to the selected remedy. The modified remedy, detailed in the table in Section 3.2, included excavation within each AOC, further assessment of impacts to wetlands, enhanced bioremediation for groundwater within AOC 2, off-site vapor mitigation, institution controls and a Site management plan.

2.0 SITE DESCRIPTION AND STATUS

2.1 Site History

The Batavia Iron and Metal Company, Inc. Site (formerly Batavia Waste Material Co.) is located at 301 Bank Street in the City of Batavia, Genesee County, New York, and is approximately 6.8 acres. The Site operated as a metal recycling facility from 1951 to 1999. Batavia Iron and Metal also purchased and handled electrical transformers on the property. Two furnaces operated at the facility from the earl 1970s until 1994 for the purpose of reclaiming wire and smelting white metals. Prior to the use of the furnaces, the facility utilized open burning in dumpsters in the yard to remove insulation from the wiring.

2.1 Completed Remedial Activities and Current Site Status

From 2006 to 2007 GZA completed a Remedial Investigation (RI) including surface and subsurface soil sampling, groundwater sampling, surface water and sediment sampling and soil vapor samples. The findings of the RI indicated that:

- surface and subsurface soils were impacted primarily by PCBs and metals, but also SVOCs and pesticides;
- off-site soil at 303 Bank Street was impacted with metals;
- solid waste, primarily in stockpiles and including wood, scrap metal, concrete, and tires, were present throughout the site;
- VOCs, SVOCs, PCBs, and metals were detected in groundwater; and
- there was a potential for off-site soil vapor intrusion impacts.

In 2013, soil vapor sampling was conducted off-site at several residential properties. As a result of the sampling, sub-slab depressurization systems (SSDS) were installed at three residential properties on Bank Street.

In 2014, seventeen 55-gallon drums of debris/waste materials were removed from the on-site building as well as a 1000-gallon underground storage tank from the Site. During this time an interim remedial measure (IRM) was conducted to remove impacted soil at the adjacent properties, previously identified as AOC-4.

In 2017, an IRM was completed to remove 16 debris/soil piles along with loose debris, tires, scrap metal, propane tanks (AOC-3) and a 3,000-gallon above-ground storage tank from the site property. From 2017 to 2018, PCB and metals impacted soil was identified and remediated on the adjacent City of Batavia owned property (299 Bank Street). The remedial activity was also conducted under an IRM. These IRM activities resulted in 17,500 tons of contaminated soil and debris removed from the Site.

In 2018 and 2019, to support the final excavation of the on-site soil (AOC-2), soil sampling via test pits and/or geoprobes were conducted at a frequency of at least 1 location per 50 by 50-foot grid throughout the property and were tested for metals, PCBs, VOCs, and SVOCs. Results of the investigation suggested that PCBs and metals were the primary contaminants of concern, which would be the drivers for the remediation limits. Although there were some soil impacts for VOCs and SVOCs, locations of exceedances were sporadic and were within the confines of areas that would be remediated based on PCB and Metal impacts.

In April 2023, implementation of the on-site remedial action (AOC-2), conducted under a Self-Implementation Plan (SIP) approved by the United States Environmental Protection Agency (USEPA), began, and included excavation and off-site disposal of approximately 67,000 tons of impacted soil and debris, dewatering, treatment, and discharge of over 1,600,000 gallons of water, backfill with certified clean imported fill, and wetland and wetland buffer restoration. Remedial activities took place both on property, including wetland areas, and in select areas on the neighboring 299 Bank Street property where, based on confirmation sampling results from the IRM, residential SCOs were not met. Over the course of the work, confirmation soil samples were collected on a 25 by 25-foot grid, or 12.5 by 12.5-foot grid within the wetland areas and in the previous IRM area. Over 1,300 confirmation soil samples were

collected and tested for PCBs and metals. Based on confirmation soil sampling, additional excavations were completed as needed and as feasible to meet the residential RSOs. Locations of remaining soil samples that exceed residential RSOs (limited to exceedances for chromium, barium, and manganese) are shown on Figure 2.

3.0 DESCRIPTION OF SIGNIFICANT DIFFERENCE

3.1 New Information

Implementation of pre-design investigations and remedial activities, described above, identified the following new information that differs from the 2013 ROD:

- Additional impacted material off-site at 299 Bank Street, not identified in the ROD. These areas were identified and remediated during the investigating and remediation of the on-site debris piles at (AOC-3).
- Additional impacted material on-site (AOC-2) after removal of the waste piles. Impacted soil extended throughout the property boundaries, not only in the north and west portions of the site as indicated in the ROD.
- Based on pre-design investigations for AOC-2, after remediation of AOC-3, neither VOCs or SVOCs were identified as primary contaminants of concern for soil. There were discrete exceedances of residential SCOs for each, but the locations were within the confines of the metals and PCB impacts and were therefore removed during implementation.
- Based on groundwater samples collected following the implementation of AOC-2, there are no current exceedances of GA groundwater standards for VOCs.
- Sub-slab soil vapor samples collected beneath the on-site building had some detections of select VOCs. However, soil and groundwater beneath the building did not indicate any exceedances of VOC standards. Additional vapor intrusion investigation and mitigation if necessary, would need to be conducted if the building or the building's footprint is reoccupied or redeveloped with an occupied building.

Based on this new information and information obtained during implementation of the IRM and Remedial Action the elements of the ROD are being modified as described further below:

ROD Element 1 - Design

ROD Element 1 is being modified to align the proposed design elements with the actual remedial action design prepared and executed in 2023. The design phase and remediation included re-delineating the wetland areas, fully characterizing the wetlands, remediating, and restoring the wetlands including additional wetland restoration at 299 Bank Street. The original Element 1 specified excavating contaminated sediment found in the wetland above the ecological SCO. The wetland impacts were fully delineated, remediated and restored including installation of a 50-foot wetland buffer area. Green Remediation techniques were used as feasible during the 2023 remedial action including reusing treated construction water from excavation dewatering for dust control, obtaining restoration materials (backfill, topsoil and trees) from nearby sources to reduce truck emissions, using onsite power instead of mobile generators to lower greenhouse gas emissions and tracking greenhouse emissions during the remedial action to evaluate the green remediation techniques.

ROD Element 2 - Excavation

Explanation of Significant Difference Batavia Iron and Metal Company, Inc Site No. 819018 ROD Element 2 included excavation of approximately 300 Cubic Yards (CY) from AOC #1 (PCB and pesticide impacted fill adjacent to the site building), 11,000 CY from AOC #2 (PCB and metals impacted soil/fill in north and western portion of the site), 4,100 CY from AOC #3 (Solid waste present throughout the site), and AOC #4 (Metals impacted soil at off-site 303 Bank Street).

ROD Element 2 is being modified to adjust the overall quantities of impacted material remediated from the Site as described below.

- In 2014 a 1,000-gallon Underground Storage Tank (UST) was removed in addition to the impacted soil at AOC #4.
- In 2017 a IRM was conducted to remove the soil and debris piles onsite to address AOC #3 and partially address AOC#1. A total of approximately 17,500 tons (≈10,500 CY) of soil and debris were removed at this time which included excavation at 299 Bank Street, conducted as part of an IRM.
- The Remedial Action conducted in 2023, excavated 67,000 tons (≈ 40,000 CY) of impacted soil from AOC #2 and included the removal of the remaining impacted material west of the Site at 299 Bank Street and the remaining impacts from AOC #1.

ROD Element 3 – Enhanced Bioremediation

ROD Element 3 included in-situ enhanced bioremediation to be employed to treat VOCs in groundwater in the area downgradient of AOC #2. During pre-investigation activities no VOC source areas were identified, additionally soil impacted with VOCs and SVOCs were co-located with metals and PCB impacted soil and therefore were removed as part of the excavations conducted as part of the 2017 IRM and 2023 Remedial Action. Six new monitoring wells and two temporary wells were installed onsite after excavation was completed in 2023. Results from post remediation groundwater sampling conducted from the five new monitoring wells (one well was dry) and the two temporary wells (located beneath the on-site building) indicate no VOC exceedances (Figure 3). PFOA and PFOS exceed drinking water standards in 4 monitoring wells sampled prior to remedial action. PFOA and PFOs impacted soils were co-located and removed with the other site contaminants of concern. Post remedial groundwater sampling will be implemented to evaluate reduction in PFOAS related compounds in groundwater. Based on this data, ROD Element 3 is being modified to remove the requirement of enhanced bioremediation.

ROD Element 5 – Institutional Controls

ROD Element 5 included the imposition of Institutional Controls via an Environmental Easement which included the restriction of groundwater use at the site as a source of potable or process water, restricting future development for commercial and industrial use and compliance with a Site Management Plan. Based on the post-excavation sample results, the soil conditions generally meet the residential SCOs and groundwater impacts are minimal. A Site Management Plan (SMP) will still be required to allow for inspection and minor repairs of the restored wetlands for five years after final restoration is complete in the Spring of 2024 per the requirements of the United States Army Corp of Engineer (USACE) permit and for proper soil handling and disposal for soil under the building should the building be removed in the future.

ROD Element 6 – Site Management Plan

Element 6 required an SMP to monitor the institutional controls from Element 5, provide a soil management plan, provide monitoring program to assess the performance and effectiveness of the remedy and provide an Operation and Maintenance (O&M) Plan for in-place treatment systems. Based on the changes noted above the Enhanced Bioremediation (Element 4) is being removed from the ROD. Due to the increased volume of impacted soil removed from the Site and the results of the post-excavation soil results and post-remediation groundwater sampling results, continuing monitoring of the performance and

effectiveness of remedy is not required. Additionally, no in place treatment system is required, therefore; a O&M Plan for in-place treatment system is not needed. An SMP will be required to provide monitoring and maintenance of the wetland and wetland buffer areas for five years, provide a soil management plan to handle material under the existing building (minor soil exceedances [Figure 2] and an abandoned in place oil/water separator), require a soil vapor intrusion evaluation in the event that the on-site building is reoccupied or the site is redeveloped with an occupied building and periodic groundwater sampling. Element 6 is being modified to include these revised requirements for the SMP.

Cost Comparison

The 2013 ROD estimated a present worth of the Selected Remedy including excavation activities in each AOC, installation of select vapor mitigation systems, implementation of enhanced bioremediation, and long-term monitoring and maintenance was \$8,177,000. The cost of the 2023 Remedial Action is approximately \$13,000,000. The increases in costs are due to natural inflation from 2013 to 2023 and the increase in volume (approximately three times) of material excavated and disposed offsite (15,500 CY projected vs approximately 50,500 CY actual). Increases in the volume of material excavated and disposed offsite has the greatest impact on final cost as it also effects the amount of backfill, topsoil and site restoration needed.

3.2 Comparison of Changes with Original Remedy

A summary of the changes to the original ROD as modified in this document are shown below. The 2013 ROD element is described, followed by any modifications or additions made by this ESD. If a remedial element is not mentioned in the ESD changes column it remains unchanged from the original selected remedy.

2013 ROD	ESD Changes
1. A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. A design-phase investigation will be conducted to determine the limits of excavation to meet residential SCOs and any impacts to the adjacent wetland will be further assessed. The remedial design will include provisions for excavation and off-site disposal of any contaminated sediments in the wetland above the ecological resources SCO as necessary, and include restoration of the impacted wetland area. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31, which are listed in the ROD.	Modified: The impacts in the wetland area were fully assessed, delineated, and remediated. Wetlands were fully restored with native wetland plants and trees upon completion of the remedy. A 100-foot wetland buffer was also restored, 50' with native tree and shrub species and 50' of grassland buffer. An additional 90 trees will be planted in the buffer zone in Spring 2024 to complete the restoration.
2. Excavation: Soil and fill exceeding the residential SCOs from area of concern (AOC)#1, AOC #2, and AOC #3will be excavated and disposed of off-site at a permitted facility. Soils exceeding the unrestricted use SCOs for PCBs, copper, lead, cadmium, and mercury will be excavated and disposed of off-site at a permitted facility. The AOCs are described	Modified: • Excavation of fill and soil at each AOC is complete.

SUMMARY OF MODIFIED REMEDY CHANGES Batavia Iron and Metal Company, Inc. – Site No. 819019

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 AOC #1 – Consists of impacted fill material and soil contaminated with PCBs, pesticides, and lead present in the area where the previous IRM was conducted. It is an area of approximately 2,800 square feet. Depth of contaminants that exceed SCOs is approximately 3 feet which results in approximately 300 cubic yards to be removed. AOC #2 – Consists of impacted fill material in the northern and western portions of the site. Contaminated fill extends off-site along the northwestern property line. Approximately 1,900 cubic yards of contaminated soil and fill are in the off-site portion and approximately 9,100 cubic yards of contaminated fill and soil are onsite. Soils and fill are contaminated fill and soil are onsite. Soils and fill are contaminated with PCBs, SVOCs and metals. AOC #3 – Consists of non-hazardous solid waste debris and soil which is present on the surface of the entire site. The estimated volume of soil and solid waste to be removed is approximately 4,100 cubic yards. AOC #4 – Consists of impacted surface soil at the off-site residential property located at 303 Bank Street. These soils are impacted by PCBs, cadmium, copper, lead, and mercury and exceed unrestricted use soil cleanup objectives. Impacted soils are in a 3,300 square feet area to a thickness of 6 to 12 inches. Approximately 100 cubic yards of soil are impacted above residential SCOs. On-site soil which does not exceed SCOs for the use of the site and/or the protection of groundwater may be used to backfill the excavation to the extent that a sufficient volume of noit is available. Clean fill meeting the requirements of DER-10, Appendix 5 will be brought in to complete the backfilling of the excavation and establish the designed grades at the site. The site will be re-graded to shed water and covered with topsoil and seeded. Soil derived from the re-grading may be used to backfill the excavation. Clean fill meeting the requirements of DER-10, Appendix 5 will be brought in to backfill	 Based on confirmation soil sampling all soil with PCB concentrations exceeding residential SCOs have been removed for the Site. Figure 2 shows areas where, based on confirmation soil samples, Chromium exceeds the Residential SCO of 22 mg/kg. The maximum concentration of chromium in these locations is 28.2 mg/kg. It shall be noted that the Residential SCO of 22 mg/kg is based on Hexavalent Chromium and was used as a conservative standard. Based on data collected, the majority of the chromium collected at the site is trivalent chromium, which has a Residential RSO of 36 mg/kg. Figure 2 also shows one of four sample locations collected from beneath the existing site building where iron, barium and manganese exceed Residential SCOs in the upper 2 feet of soil beneath the building slab.
3. Enhanced Bioremediation: In-situ enhanced bioremediation will be employed to treat volatile organic contaminants (VOC) in groundwater in the area downgradient of AOC #2. The biological breakdown of contaminants through anaerobic reductive dechlorination will be enhanced by injection of an electron donor material such as hydrogen release compound (HRC) or an enhanced reductive dechlorination product. It is estimated that three linear treatment walls of the electron donor material will be injected via direct push technology in successive rows	Modified: Based on additional investigations following the issuance of the ROD, a source of VOCs was not identified. Upon completion of the soil removal for AOC #2, six monitoring wells were installed at the site, and two temporary groundwater sampling points were installed beneath the site building. All but one (which was too shallow to produce water), were sampled for VOCs and no results exceeded the applicable GA standards. PFOA and PFOS exceeded

downgradient of the waste disposal area. A groundwater monitoring plan will be instituted after the injection to monitor the effectiveness of the remedy.	drinking water standards in 4 monitoring wells sampled prior to soil removals Post remediation groundwater monitoring will be implemented under SMP to evaluate the effectiveness of the remedy. The locations of the sampling points are presented on Figure 3. Based on these additional investigations at the Site, it was determined that enhanced bioremediation was not required.
4. Off-site Vapor Mitigation and Soil Vapor Intrusion Investigation: Installation of sub-slab depressurization systems, or similar engineered systems, to prevent the migration of vapors into the three off-site residential buildings from contaminated groundwater. Conduct additional off-site soil vapor intrusion investigation as necessary.	No Change
 5. Institution Controls: Imposition of an institutional control in the form of an Environmental Easement for the controlled property that: Requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3); Allows the use and development of the controlled property for commercial and industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws; Restricts the use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the NYSDOH or County DOH; Requires compliance with the Department approved Site Management Plan. 	Modification:Allows the use and development of the controlled property for residential, restricted residential, commercial and industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;Based on the results of confirmation sampling and recent groundwater sampling, an Environmental Easement will not be required for the site.A Site Management Plan, however, will be prepared indicating the need for proper management of soil beneath the building if the building were to be removed, protection of the wetland in accordance with state regulations and permitting. Future owners will be required to implement Site Management Protocols under agreements with the NYSDEC.Modification:
 6. A Site Management Plan that includes the following: An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective: Institutional Controls: The Environmental Easement discussed in Paragraph 5 above; and Engineering Controls: Maintain any potential future sub-slab ventilation system(s) and maintain groundwater monitoring wells. The Site Management Plan includes, but may not be limited to: An Excavation Plan that details the provisions for management of future excavations in areas of remaining contamination; 	 <i>A Site management plan will be prepared to:</i> <i>Require a wetland management plan and restoration inspection in line with the approved USACE permit and restoration plan.</i> <i>identify required inspections and maintenance of plant and tree vigor for five years within the wetland and wetland buffer areas,</i> <i>provide a soil management plan for soil beneath the on-site building, and for handling of an abandoned in place oil/water separator (located beneath the on-site building).</i> <i>require a soil vapor intrusion evaluation if the on-site building is reoccupied, or the site is redeveloped with an occupied building.</i>

\circ Descriptions of the provisions of the	The site management plan will not require an OM&M plan
environmental easement including any land use	as there will not be any remedial systems to monitor.
and groundwater restrictions;	
\circ a provision for evaluation of the potential for	
soil vapor intrusion for any buildings	
developed on the site, including provision for	
implementing actions recommended to address	
exposures related to soil vapor intrusion;	
• provisions for the management and inspection	
of the identified engineering controls;	
o maintaining site access controls and	
Department notification; and	
• the steps necessary for the periodic reviews and	
certification of the institutional and/or	
engineering controls.	
• A Monitoring Plan to assess the performance and	
effectiveness of the remedy. The plan includes, but may	
not be limited to:	
• Monitoring of groundwater to assess the performance	
and effectiveness of the remedy;	
• A schedule of monitoring and frequency of submittals	
to the Department; and	
• Monitoring for vapor intrusion for any buildings	
occupied or developed on the site, as may be required	
by the Institutional and Engineering Control Plan	
discussed above.	
• An Operation and Maintenance (O&M) Plan to ensure	
continue operation, maintenance, optimization,	
monitoring, inspection, and reporting of any mechanical	
or physical components of the remedy.	

4.0 SCHEDULE AND MORE INFORMATION

This Explanation of Significant Difference (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

Richmond Memorial Library 19 Ross Street Batavia, NY 14020 (585)-343-0550

Although this is not a request for comments, interested persons are invited to contact the Department's Project Manager for this site to obtain more information or have questions answered. The Project Manager's contact information is:

Lisa Gorton, P.E. Project Manager NYS Department of Environmental Conservation Division of Environmental Remediation 625 Broadway, 12th Floor Albany, NY 12233-7017 (518) 949-5091 lisa.gorton@dec.ny.gov

Site-Related Health Questions

Steven G. Berninger New York State Department of Health Bureau of Environmental Exposure Investigation Empire State Plaza, Corning Tower, Room 1787 Albany, NY 12237 (518) 402-7860 <u>BEEI@health.ny.gov</u>

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html.

_4-10-2024___ Date

04/15/2024

Date

04/16/2024

Date

04/25/2024

Date

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DECLARATION

The selected remedy is protective of public health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity,8mobility, or volume as a principal element

FIGURES





