UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 2

IN THE MATTER OF:

Lower Hackensack River Superfund Site

Beazer East, Inc.; Honeywell International Inc.; Morton International, LLC; Occidental Chemical Corporation; and Public Service Electric and Gas Company,

Respondents

Proceeding Under Sections 104, 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act

CERCLA Docket No. 02-2024-2006

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR TARGETED REMEDIAL INVESTIGATION AND FOCUSED FEASIBILITY STUDY FOR OPERABLE UNIT 2

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and Beazer East, Inc.; Honeywell International Inc.; Morton International, LLC; Occidental Chemical Corporation; and Public Service Electric and Gas Company ("Respondents"). This Settlement provides for the performance of a Targeted Remedial Investigation and Focused Feasibility Study ("TRI/FFS") and related baseline sampling by Respondents, in accordance with the Statement of Work ("SOW") attached as Appendix C, and the payment by Respondents of certain response costs incurred by the United States at or in connection with the operable unit comprising the area of the Lower Hackensack River generally located between river miles ("RM") 2 and 5.5, which EPA has designated as Operable Unit 2 ("OU2") of the Lower Hackensack River Superfund Site (the "Site"). The Site is generally located south of the Oradell Dam to near Newark Bay in Bergen and Hudson Counties, New Jersey. EPA has designated the approximately 22-river-mile span of the Lower Hackensack River south of the Oradell Dam to near Newark Bay at RM 1 as Operable Unit 1 ("OU1") of the Site.

2. This Settlement is issued under the authority vested in the President of the United States by Sections 104, 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9604, 9607, and 9622. This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2923 (Jan. 29, 1987), and further delegated to Regional Administrators by EPA Delegation Nos. 14-14C (Administrative Actions through Consent Orders, Jan. 18, 2017) and 14-14D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders, Jan. 18, 2017). These authorities were further redelegated by the Regional Administrator of EPA Region 2 to the Director of the Emergency and Remedial Response Division through EPA Region 2 Delegation No. 14-14-C and 14-14-D (Jan. 19, 2017) and conferred to the Director of the Superfund and Emergency Management Division of EPA Region 2 by Regional Memorandum "Redelegations and the Regional Realignment" (Mar. 27, 2019).

3. In accordance with Section 122(j)(1) of CERCLA, 42 U.S.C. § 9622(j)(1), EPA notified the National Oceanic and Atmospheric Administration and the Department of the Interior on September 30, 2024, of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under federal trusteeship and encouraged the trustee(s) to participate in the negotiation of this Settlement.

4. EPA and Respondents recognize that this Settlement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV (Findings of Fact) and V (Conclusions of Law and Determinations) of this Settlement. Respondents agree not to contest the basis or validity of this Settlement or its terms.

II. PARTIES BOUND

5. This Settlement is binding upon EPA and upon Respondents and their successors. Unless EPA otherwise consents, (a) any change in ownership or corporate or other legal status of any Respondent, including any transfer of assets, or (b) any Transfer of the Site or any portion thereof, does not alter any of Respondents' obligations under this Settlement. Respondents' responsibilities under this Settlement cannot be assigned except under a modification executed in accordance with ¶ 80.

6. Respondents shall be responsible for ensuring that their officers, directors, employees, agents, contractors, or any other person representing Respondents perform the Work in accordance with the terms of this Settlement. Respondents shall provide notice of this Settlement to each person representing Respondents with respect to the Site or the Work. Respondents shall provide notice of this Settlement to each contractor performing any Work and shall ensure that notice of the Settlement is provided to each subcontractor performing any Work.

III. DEFINITIONS

7. Subject to the next sentence, terms used in this Settlement that are defined in CERCLA or the regulations promulgated under CERCLA have the meanings assigned to them in CERCLA and the regulations promulgated under CERCLA. Whenever the terms set forth below are used in this Settlement, the following definitions apply:

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601–9675.

"Climate Change" means any substantial change in measures of climate (such as temperature or precipitation) lasting for an extended period, including major changes in temperature, precipitation, or wind patterns, among other effects, that occur over several decades or longer.

"Day" or "day" means a calendar day. In computing any period under this Settlement, the day of the event that triggers the period is not counted and, where the last day is not a working day, the period runs until the close of business of the next working day. "Working Day" means any day other than a Saturday, Sunday, or federal or State holiday.

"Effective Date" means the effective date of this Settlement as provided in Section XXIV.

"EPA" means the United States Environmental Protection Agency.

"Fund" means the Hazardous Substance Superfund established under Section 9507 of the Internal Revenue Code, 26 I.R.C. § 9507.

"Future Response Costs " means all costs (including direct, indirect, payroll, contractor, travel, and laboratory costs) that the United States pays after the Effective Date in implementing, overseeing, or enforcing this Settlement, including: (i) in developing, reviewing, and approving deliverables generated under this Settlement; (ii) in overseeing Respondents' performance of the Work; (iii) in assisting or taking action to obtain access or use restrictions under ¶ 28; (iv) in taking action under ¶ 38 (Access to Financial Assurance); (v) in taking response action described because of Respondents' failure to take emergency action under ¶ 5.6 of the SOW (Emergency Response and Reporting); (vi) in implementing a Work Takeover under ¶ 27; (vii) in implementing community involvement activities, including the cost of any technical assistance grant provided under Section 117(e) of CERCLA, 42 U.S.C. § 9617(e); and (viii) in enforcing this Settlement, including all costs paid under Section XIII (Dispute Resolution) and all litigation costs.

"Greener Cleanup" means strategies designed to help minimize the environmental footprint of cleaning up contaminated sites and ensure a protective remedy within the applicable CERCLA statutory and regulatory framework.

"Institutional Controls" means: (a) Proprietary Controls (i.e., easements or covenants running with the land that (i) limit land, water, or other resource use, provide access rights, or both, and (ii) are created under common law or statutory law by an instrument that is recorded, or for which notice is recorded, in the appropriate land records office); and (b) state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (i) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (ii) limit land, water, or other resource use to implement, ensure noninterference with, or ensure protectiveness of the response action; (iii) provide information intended to modify or guide human behavior at or in connection with the Site; or (iv) any combination thereof.

"Including" or "including" means "including but not limited to."

"Interest" means interest at the rate specified for interest on investments of the Fund, as provided under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), compounded annually on October 1 of each year. The applicable rate of interest will be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. As of the date EPA signs this Settlement, rates are available online at https://www.epa.gov/superfund/superfund-interest-rates.

"Lower Hackensack River Site Special Account" means the special account, within the Fund, established for the Site by EPA under Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3).

"National Contingency Plan" or "NCP" means the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

"Operable Unit 1" or "OU1" of the Site means the area of the Lower Hackensack River, south of the Oradell Dam to near Newark Bay at RM 1 in Bergen and Hudson Counties, New Jersey, which spans approximately 22 river miles. OU1 is generally depicted on the map attached as Appendix A. The area designated as OU1 on Appendix A is approximate and, to the extent Appendix A conflicts with this definition, the language set forth in this definition controls.

"Operable Unit 2" or "OU2" of the Site means the area of the Lower Hackensack River generally located between RM 2 and 5.5. The area designated as OU2 encompasses Marion Reach, a navigation channel, and the turning basin at the upstream terminus of Marion Reach maintained by the U.S. Army Corps of Engineers. OU2 is generally depicted on the map attached as Appendix B. The area designated as OU2 on Appendix B is approximate and, to the extent Appendix B conflicts with this definition, the language set forth in this definition controls.

"Paragraph" or "¶" means a portion of this Settlement identified by an Arabic numeral or an upper- or lower-case letter.

"Parties" means EPA and Respondents.

"RCRA" means the Solid Waste Disposal Act, 42 U.S.C. §§ 6901–6992k (also known as the Resource Conservation and Recovery Act).

"Respondents" means Beazer East, Inc.; Honeywell International Inc.; Morton International, LLC; Occidental Chemical Corporation; and Public Service Electric and Gas Company. EPA and Respondents acknowledge that this Settlement may be amended, upon mutually acceptable terms and conditions, to include additional parties who elect to become Respondents after this Settlement becomes effective.

"Section" means a portion of this Settlement identified by a Roman numeral.

"Settlement" means this Administrative Settlement Agreement and Order on Consent, all appendices attached hereto (listed in Section XX), and all deliverables approved under and incorporated into this Settlement. If there is a conflict between a provision in Sections I through XXIV and a provision in any appendix or deliverable, the provision in Sections I through XXIV controls.

"Site" means the Lower Hackensack River Superfund Site, comprising approximately 22 river miles spanning from south of the Oradell Dam to near Newark Bay in Bergen and Hudson Counties, New Jersey, and generally depicted on the map attached as Appendix A. The area designated as the Site on Appendix A is approximate and, to the extent Appendix A conflicts with this definition, the language set forth in this definition controls.

"State" means the State of New Jersey.

"Statement of Work" or "SOW" means the document attached as Appendix C.

"Transfer" means to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

"TRI/FFS" means the Targeted Remedial Investigation and Focused Feasibility Study required under this Settlement.

"United States" means the United States of America and each department, agency, and instrumentality of the United States, including EPA.

"Waste Material" means (a) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (d) any "hazardous waste" under N.J.A.C. § 7:26G-5.

"Work" means all obligations of Respondents under Sections VII (Performance of the Work) through X (Indemnification and Insurance).

"Work Takeover" means EPA's assumption of the performance of any of the Work in accordance with ¶ 27.

IV. FINDINGS OF FACT

8. The Site includes the lower portion of the Hackensack River, which spans approximately 22 river miles from south of the Oradell Dam to near Newark Bay and is located in both Bergen and Hudson Counties, New Jersey. The lower portion of the river is tidal, and the Hackensack River estuary receives tidal flows of brackish water from Newark Bay.

9. The Hackensack River is habitat to over 30 state and/or federally designated endangered or threatened species and home to over 8,400 acres of wetlands. The Hackensack Meadowlands, which are the largest brackish estuarine complex in the New York-New Jersey Harbor Estuary (a designated Estuary of National Significance), border and include the portion of the Site from the mouth of the river near Newark Bay to approximately RM 15.

10. Land uses along the northern section of the Site are primarily residential, commercial, and public, while land uses along the southern section are primarily industrial, open space wetlands/forested, and public, with some residential and commercial land surrounding the Hackensack Meadowlands. There are communities with environmental justice concerns and overburdened communities located along the Site.

11. The Hackensack River has been the center of industrial activity for over 200 years, including many decades of discharges from various sources within the Hackensack Meadowlands, landfills, storm/sewer outfalls, and hundreds of upland industrial and municipal sources. There are hundreds of known contaminated sites within the Site's drainage basin, many of which are being, or have been, remediated under federal or New Jersey state remediation authorities. These sites, which include Superfund sites on the National Priorities List ("NPL"), may have contributed to the releases that caused the hazardous substance contamination at the Site, including at OU2. In addition, there are at least three public sewage treatment plants, 26 combined sewer overflows, and roughly 2,500 acres of landfills, which also may have contributed to the releases that caused the hazardous substance contamination at the Site.

12. These discharges have contaminated Site surface waters and sediments with hazardous substances, including with metals (arsenic, chromium, lead, and mercury), polycyclic aromatic hydrocarbons ("PAHs"), polychlorinated biphenyls ("PCBs"), and 2,3,7,8-tetrachlorodibenzodioxin ("2,3,7,8-TCDD"). In addition, decades of dredging and disposal of dredge spoils within or adjacent to the Site and OU2 may have disturbed the sediments and contributed to the contamination.

13. Tidal flows in the lower portion of the river distribute dissolved and suspended materials, including contaminants. The New Jersey Department of Environmental Protection ("NJDEP") has issued fish advisories for the tidal section of the river, banning or limiting people from eating several types of fish and crab.

14. In 2015, EPA conducted a Preliminary Assessment for the Site that incorporated a review of available analytical results reported from samples collected and maintained by the National Oceanic and Atmospheric Administration. In 2016 and again in 2021, EPA extensively sampled the river bottom at differing depths and determined the presence of hazardous substances, including arsenic, cadmium, chromium, dieldrin, lead, mercury, and several PAHs in surface and subsurface sediments at concentrations significantly greater than background concentrations. EPA's review of historic sampling collected under authorities other than CERCLA indicated that Site sediments also contain elevated concentrations of PCBs and 2,3,7,8-TCDD.

15. By letter dated July 23, 2021, the State of New Jersey requested that EPA take all appropriate steps to add the Site to the NPL. On March 18, 2022, EPA proposed listing the Site on the NPL under Section 105 of CERCLA, 42 U.S.C. § 9605. See 87 Fed Reg. 15,349. The Site was placed on the NPL on September 9, 2022. See 87 Fed. Reg. 55,299.

16. EPA has identified two operable units for the Site at this time: the area of the Lower Hackensack River from south of the Oradell Dam to near Newark Bay at RM 1, which spans approximately 22 river miles, is Operable Unit 1, and the area of the Lower Hackensack River generally located between RM 2 and 5.5 is Operable Unit 2. OU1 and OU2 are generally depicted on the maps in Appendices A and B.

17. Data collected at the Site and EPA's analyses demonstrate that contaminated sediment in OU2 is a potential source of contamination to the rest of the Site and may pose an unacceptable risk to human health and the environment due to the presence of a variety of contaminants that persist in the environment and can build up in fish and shellfish. These contaminants have been initially identified to include mercury, chromium, PAHs, PCBs, and 2,3,7,8-TCDD. Non-aqueous phase liquids have been identified within OU2 and may also pose an unacceptable risk to human health and the environment. Exposure to the various hazardous substances present in OU2 by direct contact, inhalation, or ingestion may cause a variety of adverse human health effects. In addition, exposure of biota to hazardous substances may give rise to adverse effects.

18. Consistent with OLEM Directive No. 9200.1-166, *Adaptive Site Management – A Framework for Implementing Adaptive Management at Contaminated Sediment Superfund Sites* (June 2022), EPA is employing adaptive site management as a planning tool to develop a strategy to address the Site, which is large and complex. This approach will allow EPA to conduct targeted investigations and/or undertake cleanup actions at the Site aimed at achieving significant progress towards final risk-based remediation goals based on what is known about Site conditions while acknowledging what is not fully understood, and will provide a framework to collect necessary information to reduce uncertainties about the Site. EPA anticipates this approach will result in targeted investigations and/or cleanup actions in areas of the Site with elevated levels of contamination that may represent high-risk areas or source areas where

contamination may be transported (i.e., erosional areas) within the Site while additional data collection and response testing is conducted to determine the appropriate level of any potential remediation at the Site. OU2 is the first area identified for a targeted investigation as part of the implementation of EPA's adaptive management approach at the Site, and the Work to be performed under this Settlement will further the adaptive management approach at the Site.

19. The extensive sampling efforts already conducted at the Site, some of which have been discussed herein, have produced a large amount of relevant data that can inform an assessment of the Site, including OU2. These include chemical sampling data, hydrodynamic transport data, and physical data. Such data, along with additional baseline sampling data to be collected by Respondents under the SOW, will assist in determining baseline conditions for the Site, which, in turn, will inform EPA's evaluation of whether to select an interim remedy for OU2 that controls source sediments, mitigates risk, and limits contaminant migration.

20. Based on available information and investigation, EPA has found that each Respondent currently owns or operates, or at the time of disposal of hazardous substances owned or operated, a facility or facilities from which there was a release or threatened release of hazardous substances to the Site, and/or arranged for disposal or treatment, or arranged with a transporter for disposal or treatment, of hazardous substances at a facility from which there was a release of hazardous substances to the Site. Hazardous substances of the type identified in releases or threatened releases from such facilities have been identified in the sediments of the Site.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

21. Based on the Findings of Fact in Section IV and the administrative record, EPA has determined that:

a. The Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. Each Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. Each Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), as: (1) the past or present owner or operator, as defined by Section 101(2) of CERCLA, 42 U.S.C. § 9601(2), of a facility from which there was a release of a hazardous substance to the Site, and/or (2) a person who arranged for disposal or treatment, or arranged with a transporter for disposal or treatment, of a hazardous substance at a facility from which there was a release of a hazardous substance to the Site.

e. The conditions described in Section IV constitute an actual and/or threatened release of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The actions required by this Settlement are necessary to protect the public health or welfare or the environment, are in the public interest, are consistent with CERCLA and the NCP, and will expedite effective remedial action and minimize litigation in accordance with Sections 104(a)(1) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a)(1) and 9622(a).

g. EPA has determined that Respondents are qualified to conduct the TRI/FFS within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondents comply with the terms of this Settlement.

VI. ORDER AND AGREEMENT

22. Based upon the Findings of Fact, Conclusions of Law, and Determinations set forth above, and the administrative record, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Settlement.

VII. PERFORMANCE OF THE WORK

23. **Performance of Work in Accordance with SOW**. Respondents shall develop and perform the TRI/FFS and baseline sampling in accordance with the SOW and all EPA-approved, conditionally approved, or modified deliverables as required by the SOW. All deliverables required to be submitted for approval under the Settlement or SOW shall be subject to approval by EPA in accordance with ¶ 6.5 (Approval of Deliverables) of the SOW.

24. Respondents' obligations to finance and perform the Work and to pay amounts due under this Settlement are joint and several. In the event of the insolvency of any Respondent or the failure by any Respondent to participate in the implementation of the Settlement, the remaining Respondents shall complete the Work and make the payments.

25. **Modifications to the Work**. EPA may modify the Work under this Settlement if it determines that (a) additional data are necessary to accomplish the objectives of the SOW, or (b) that, in addition to tasks defined in the initially approved Work Plan required by the SOW, other additional work is necessary to accomplish the objectives of the SOW. The objectives of the SOW are defined in the SOW at ¶ 1.2. Respondents also may request modification of the approved Work Plan required by the SOW or other deliverables. In the event that EPA determines that modifications to the Work are necessary to carry out the objectives of the SOW, EPA will notify Respondents and provide an explanation in writing. Unless Respondents invoke dispute resolution procedures in accordance with Section XIII, Respondents shall: (a) within 30 days after receiving notice under this Paragraph, submit a revised work plan and other deliverables as necessary to EPA for approval, and (b) implement the revised work plan and any other deliverables upon EPA's approval in accordance with the procedures of ¶ 6.5 (Approval of Deliverables) of the SOW.

26. **Compliance with Applicable Law**. Nothing in this Settlement affects Respondents' obligations to comply with all applicable federal and state laws and regulations. The activities conducted in accordance with this Settlement, if approved by EPA, will be deemed

to be consistent with the NCP as provided under Section 300.700(c)(3)(ii), 40 C.F.R. § 300.700(c)(3)(ii).

27. **Work Takeover**

a. If EPA determines that Respondents: (1) have ceased to perform any portion of the Work; (2) are seriously or repeatedly deficient or late in performing the Work; or (3) are performing the Work in a manner that may cause an endangerment to public health or welfare or the environment, EPA may issue a notice of Work Takeover to Respondents, including a description of the grounds for the notice and a period of time ("Remedy Period") within which Respondents shall remedy the circumstances giving rise to the notice. The Remedy Period will be 20 days, unless EPA determines in its unreviewable discretion that there may be an endangerment, in which case the Remedy Period will be 10 days.

b. If, by the end of the Remedy Period, Respondents do not remedy to EPA's satisfaction the circumstances giving rise to the notice of Work Takeover, EPA may notify Respondents and, as it deems necessary, commence a Work Takeover.

c. EPA may conduct the Work Takeover during the pendency of any dispute under Section XIII but shall terminate the Work Takeover if and when: (1) Respondents remedy, to EPA's satisfaction, the circumstances giving rise to the notice of Work Takeover; or (2) upon the issuance of a final determination under Section XIII that EPA is required to terminate the Work Takeover.

VIII. PROPERTY REQUIREMENTS

28. If the Site, or any other property where access is needed to implement this Settlement, is owned or controlled by any of the Respondents, such Respondents shall, commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement. Where any action under this Settlement is to be performed in areas owned or controlled by someone other than Respondents, Respondents shall use best efforts to obtain all necessary agreements for access, enforceable by Respondents and EPA, to allow Respondents to implement the Work consistent with the Schedule in ¶ 7.1 of the SOW, or as otherwise specified in writing by EPA's Project Coordinators. Respondents shall provide a copy of each agreement required under this ¶ 28 to EPA.

a. As used in this Section, "Affected Property" means any real property, including the Site, where EPA determines, at any time, that access; land, water, or other resource use restrictions; Institutional Controls; or any combination thereof, are needed to implement the TRI.

b. The following is a non-exclusive list of activities for which access may be required:

(1) Implementing the Work and overseeing compliance with the Settlement;

(2) Conducting investigations regarding contamination at or near the Site;

(3) Obtaining samples;

(4) Verifying any data or information submitted to the United States;

(5) Assessing the need for and planning response actions at or near the Site;

(6) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Settlement;

(7) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions regarding the Affected Property;

(8) Monitoring the Work;

(9) Assessing implementation of quality assurance and quality control practices as defined in the approved construction quality assurance quality control plan as provided in the SOW; and

(10) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondents or their agents, consistent with Section XVIII (Records).

29. As used in this Section, "best efforts" means the efforts that a reasonable person in the position of Respondents would use to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, as required by this Section. If Respondents cannot accomplish what is required through "best efforts" in a timely manner, they shall notify EPA, and include a description of the steps taken to achieve the requirements. If EPA deems it appropriate, it may assist Respondents, or take independent action, in obtaining such access and/or use restrictions.

30. Any Respondent who owns or controls any property at the Site shall, prior to entering into a contract to Transfer any of its property that is part of the Site, or 60 days prior to a Transfer of such property, whichever is earlier, (a) give written notice to the proposed transferee that the property is subject to this Settlement; and (b) give written notice to EPA of the proposed Transfer, including the name and address of the transferee. Any Respondent who owns or controls property at the Site also agrees to require that their successors comply with this Section and Section XVIII (Records).

31. Notwithstanding any provision of the Settlement, EPA retains all of its access authorities and rights, as well as all of its rights to require land, water, or other resource use restrictions, including enforcement authorities related thereto under CERCLA, RCRA, and any other applicable statute or regulations.

IX. FINANCIAL ASSURANCE

32. Except as provided below in ¶ 33, to ensure completion of the Work required under Section VII, Respondents shall secure financial assurance, initially in the amount of $30,000,000 ("Estimated Cost of the Work"), for the benefit of EPA. The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available from EPA, and be satisfactory to EPA. As of the date of signing this Settlement, the sample documents can be found under the "Financial Assurance - Settlements" category on the Cleanup Enforcement Model Language and Sample Documents Database at https://cfpub.epa.gov/compliance/models/. Respondents may use multiple mechanisms if they are limited to surety bonds guaranteeing payment, letters of credit, trust funds, insurance policies, or some combination thereof. The following are acceptable mechanisms:

a. A surety bond guaranteeing payment, performance of the Work, or both, that is issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury;

b. An irrevocable letter of credit, payable to EPA or at the direction of EPA, that is issued by an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency;

c. A trust fund established for the benefit of EPA that is administered by a trustee that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency;

d. A policy of insurance that provides EPA with acceptable rights as a beneficiary thereof and that is issued by an insurance carrier that has the authority to issue insurance policies in the applicable jurisdiction(s) and whose insurance operations are regulated and examined by a federal or state agency;

e. A demonstration by a Respondent that it meets the relevant financial test criteria of ¶ 34, accompanied by a standby funding commitment, that requires the affected Respondent to pay funds to or at the direction of EPA, up to the amount financially assured through the use of this demonstration in the event of a Work Takeover; or

f. A guarantee to fund or perform the Work executed in favor of EPA by a company: (1) that is a direct or indirect parent company of a Respondent or has a "substantial business relationship" (as defined in 40 C.F.R. § 264.141(h)) with a Respondent; and (2) demonstrates to EPA's satisfaction that it meets the financial test criteria of ¶ 34.

33. If Respondents seek to provide financial assurance using a trust fund under ¶ 32.c, the Estimated Cost of the Work may be funded in phases, and the timing and amount of each payment by Respondents into the trust fund, as well as the minimum amount required to be maintained in the trust fund, will be established in a Trust Agreement that must be approved by EPA under ¶ 36.

34. Respondents seeking to provide financial assurance by means of a demonstration or guarantee under ¶¶ 32.e or 32.f shall, within 30 days of the Effective Date:

a. Demonstrate that:

(1) the affected Respondent or guarantor has:

i. two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

ii. net working capital and tangible net worth each at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and

iii. tangible net worth of at least $10 million; and

iv. assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; or

(2) the affected Respondent or guarantor has:

i. a current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

ii. tangible net worth at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and

iii. tangible net worth of at least $10 million; and

iv. assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and

b. submit to EPA for the affected Respondent or guarantor: (1) a copy of an independent certified public accountant's report of the entity's financial statements for the latest completed fiscal year, which must not express an adverse opinion or disclaimer of opinion; and (2) a letter from its chief financial officer and a report from an independent certified public accountant substantially identical to the sample letter and reports available from EPA. As of the date of signature of this Settlement, a sample letter and report are available under the "Financial Assurance - Settlements" subject list category on the Cleanup Enforcement Model Language and Sample Documents Database at https://cfpub.epa.gov/compliance/models/.

35. Respondents providing financial assurance by means of a demonstration or guarantee under ¶¶ 32.e or 32.f shall also:

a. annually resubmit the documents described in ¶ 34.b within 90 days after the close of the affected Respondent's or guarantor's fiscal year;

b. notify EPA within 30 days after the affected Respondent or guarantor determines that it no longer satisfies the relevant financial test criteria and requirements set forth in this Section; and

c. provide to EPA, within 30 days of EPA's request, reports of the financial condition of the affected Respondent or guarantor in addition to those specified in ¶ 34.b. EPA may make such a request at any time based on a belief that the affected Respondent or guarantor may no longer meet the financial test requirements of this Section.

36. Respondents shall, within 45 days after the Effective Date, seek EPA's approval of the form of Respondents' financial assurance. Within 30 days after EPA's approval, Respondents shall secure all executed and/or otherwise finalized mechanisms or other documents consistent with the EPA-approved form of financial assurance and shall submit such mechanisms and documents to the Regional Financial Management Officer in accordance with ¶ 78.

37. Respondents shall diligently monitor the adequacy of the financial assurance. If any Respondent becomes aware of any information indicating that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, such Respondent shall notify EPA of such information within 7 days. If EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, EPA will notify the affected Respondent of such determination. Respondents shall, within 30 days after notifying EPA or receiving notice from EPA under this Paragraph, secure and submit to EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. EPA may extend this deadline for such time as is reasonably necessary for the affected Respondent, in the exercise of due diligence, to secure and submit to EPA a proposal for a revised or alternative financial assurance mechanism, not to exceed 60 days. Respondents shall follow the procedures of ¶ 39 (Modification of Amount, Form, or Terms of Financial Assurance) in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondents' inability to secure financial assurance in accordance with this Section does not excuse performance of any other obligation under this Settlement.

38. **Access to Financial Assurance**

a. If EPA issues a notice of a Work Takeover under ¶ 27.b, then, in accordance with any applicable financial assurance mechanism and/or related standby funding commitment, EPA may require: (1) the performance of the Work; and/or (2) that any funds guaranteed be paid in accordance with ¶ 38.d.

b. If EPA is notified that the issuer of a financial assurance mechanism intends to cancel the mechanism, and the affected Respondent fails to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, the funds guaranteed under such mechanism must be paid prior to cancellation in accordance with ¶ 38.d.

c. If, upon issuance of a notice of a Work Takeover under ¶ 27, either: (1) EPA is unable for any reason to promptly secure the resources guaranteed under any applicable financial assurance mechanism, including the related standby funding commitment, whether in cash or in kind, to continue and complete the Work; or (2) the financial assurance is a demonstration or guarantee under ¶¶ 32.e or 32.f, then EPA is entitled to demand an amount, as determined by EPA, sufficient to cover the cost of the remaining Work to be performed. Respondents shall, within 30 days of such demand, pay the amount demanded as directed by EPA.

d. Any amounts required to be paid under this ¶ 38 will be, as directed by EPA: (i) paid to EPA in order to facilitate the completion of the Work by EPA, the State, or by another person; or (ii) deposited into an interest-bearing account, established at a duly chartered bank or trust company that is insured by the Federal Deposit Insurance Corporation ("FDIC"), in order to facilitate the completion of the Work by another person. If payment is made to EPA, EPA may deposit the payment into the Fund or into the Lower Hackensack River Site Special Account to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the Fund.

39. **Modification of Amount, Form, or Terms of Financial Assurance**. Beginning after the first anniversary of the Effective Date or at any other time agreed to by the Parties, Respondents may request to change the form, terms, or amount of the financial assurance mechanism. Respondent shall submit any request to EPA in accordance with ¶ 36, and shall include an estimate of the cost of the remaining Work, an explanation of the bases for the cost calculation, and a description of the proposed changes, if any, to the form or terms of the financial assurance. EPA will notify Respondents of its decision regarding the request. Respondents may modify the form, terms, or the amount of the financial assurance mechanism only in accordance with: (a) EPA's approval; or (b) any resolution of a dispute on the appropriate amount of financial assurance under Section XIII. Any decision made by EPA on a request submitted under this Paragraph to change the form or terms of a financial assurance mechanism shall not be subject to challenge by Respondents pursuant to the dispute resolution provisions of this Settlement or in any other forum. Respondents shall submit to EPA, within 30 days after receipt of EPA's approval, or consistent with the terms of the resolution of the dispute, documentation of the change to the form, terms, or amount of the financial assurance instrument.

40. **Release, Cancellation, or Discontinuation of Financial Assurance**. Respondents may release, cancel, or discontinue any financial assurance provided under this Section only: (a) if EPA issues a Notice of Completion of Work under ¶ 6.7 of the SOW (Notice of Completion of TRI/FFS Work); (b) in accordance with EPA's approval of such release, cancellation, or discontinuation; or (c) if there is a dispute regarding the release, cancellation, or discontinuance of any financial assurance, in accordance with the agreement or final decision resolving such dispute under Section XIII.

X. INDEMNIFICATION AND INSURANCE

41. **Indemnification**

a. EPA does not assume any liability by entering into this Settlement or by virtue of any designation of Respondents as EPA's authorized representative under Section 104(e)(1) of CERCLA, , 42 U.S.C. § 9604(e)(1). Respondents shall indemnify and save and hold harmless EPA and its officials, agents, employees, contractors, subcontractors, and representatives for or from any claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on Respondents' behalf or under their control, in carrying out activities under this Settlement, including any claims arising from any designation of Respondents as EPA's authorized representatives under Section 104(e)(1) of CERCLA. Further, Respondents agree to pay EPA all costs it incurs including attorneys' fees and other expenses of litigation and settlement arising from, or on account of, claims made against EPA based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control in carrying out activities under this Settlement. EPA may not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities under this Settlement. Respondents and any such contractor may not be considered an agent of EPA.

b. EPA will give Respondents notice of any claim for which EPA plans to seek indemnification in accordance with this ¶ 41, and shall consult with Respondents prior to settling such claim.

42. Respondents covenant not to sue and shall not assert any claim against EPA for damages or reimbursement or for set-off of any payments made or to be made to EPA, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work or other activities on or relating to the Site, including claims on account of construction delays. In addition, Respondents shall indemnify and save and hold EPA harmless with respect to any claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of work at or relating to the Site, including claims on account of construction delays.

43. **Insurance**. Respondents shall secure, by no later than 30 days before commencing any on-site Work, the following insurance: (a) commercial general liability insurance with limits of liability of $1 million per occurrence; (b) automobile liability insurance

with limits of liability of $1 million per accident; and (c) umbrella liability insurance with limits of liability of $5 million in excess of the required commercial general liability and automobile liability limits. The insurance policy must name EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondents under this Settlement. Respondents shall maintain this insurance until the first anniversary after EPA's issuance of the Notice of Completion of Work under ¶ 6.7 of the SOW (Notice of Completion of TRI/FFS Work). In addition, for the duration of this Settlement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement. Prior to commencement of the Work, Respondents shall provide to EPA certificates of such insurance and a copy of each insurance policy. Respondents shall resubmit such certificates and copies of policies each year on the anniversary of the Effective Date. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Respondents need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor. Respondents shall ensure that all submittals to EPA under this Paragraph identify the Lower Hackensack River Superfund Site, Bergen and Hudson Counties, New Jersey and the EPA docket number of this case.

XI. PAYMENTS FOR RESPONSE COSTS

44. **Payments by Respondents for Future Response Costs**

a. **Periodic Bills**. On a periodic basis, EPA will send Respondents a bill for Future Response Costs, including an e-Recovery Report listing direct costs paid by EPA, its contractors, and subcontractors and related indirect costs. Respondents may initiate a dispute under Section XIII regarding a Future Response Cost billing, but only if the dispute relates to one or more of the following issues: (1) whether EPA has made an arithmetical error; (2) whether EPA has included a cost item that is not within the definition of Future Response Costs; or (3) whether EPA has paid excess costs as a direct result of an EPA action that was inconsistent with a specific provision or provisions of the NCP. If Respondents submit a Notice of Dispute, Respondents shall, within the 45-day period and also as a requirement for initiating the dispute, (a) pay all uncontested Future Response Costs to EPA in the manner described in ¶ 44.b, and (b) establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the FDIC and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XIII shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Future Response Costs. Respondents shall specify in the Notice of Dispute the contested costs and the basis for the objection.

b. **Payment of Bill**. Respondents shall pay the bill, or if they initiate dispute resolution, the uncontested portion of the bill, if any, within 45 days after receipt of the bill. Respondents shall pay the contested portion of the bill determined to be owed, if any, within 45 days after the determination regarding the dispute. Each payment for: (1) the uncontested bill or portion of bill, if late, and; (2) the contested portion of the bill determined to be owed, if any, must include an additional amount for Interest accrued from the date of receipt of the bill through the date of payment. Respondents shall make payment at https://www.pay.gov using the "EPA Miscellaneous Payments Cincinnati Finance Center" link, and including references to the Site/Spill ID number listed in ¶ 78 and the purpose of the payment. Respondents shall send notices of this payment to EPA.

45. **Deposit of Payments**. EPA may, in its unreviewable discretion, deposit the amounts paid under ¶ 44 in the Fund, in the Lower Hackensack River Site Special Account, or both. EPA may, in its unreviewable discretion, retain and use any amounts deposited in the Lower Hackensack River Site Special Account to conduct or finance response actions at or in connection with the Site, or transfer those amounts to the Fund.

XII. FORCE MAJEURE

46. "Force majeure," for purposes of this Settlement, means any event arising from causes beyond the control of Respondents, of any entity controlled by Respondents, or of Respondents' contractors that delays or prevents the performance of any obligation under this Settlement despite Respondents' best efforts to fulfill the obligation. Given the need to protect public health and welfare and the environment, the requirement that Respondents exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (a) as it is occurring, and (b) following the potential force majeure such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. "Force majeure" does not include financial inability to complete the Work or increased cost of performance.

47. If any event occurs for which Respondents will or may claim a force majeure, Respondents shall notify EPA's Project Coordinators by email. The deadline for the initial notice is 48 hours after the date Respondents first knew or should have known that the event would likely delay performance. Respondents shall be deemed to know of any circumstance of which any contractor of, subcontractor of, or entity controlled by Respondents knew or should have known. Within 10 days thereafter, Respondents shall send a further notice to EPA that includes: (i) a description of the event and its effect on Respondents' completion of the requirements of the Settlement; (ii) a description of all actions taken or to be taken to prevent or minimize the adverse effects or delay; (iii) the proposed extension of time for Respondents to complete the requirements of the Settlement; (iv) a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health or welfare or the environment; and (v) all available proof supporting their claim of force majeure. Failure to comply with the notice requirements herein regarding an event precludes Respondents from asserting any claim of force majeure regarding that event, provided, however, that if EPA, despite late or incomplete notice, is able to assess to its satisfaction whether the event is a force majeure under ¶ 46 and whether Respondents have exercised their best efforts under ¶ 46, EPA may, in its unreviewable discretion, excuse in writing Respondents' failure to submit timely or complete notices under this Paragraph.

48. EPA will notify Respondents of its determination whether Respondents are entitled to relief under ¶ 46, and, if so, the duration of the extension of time for performance of the obligations affected by the force majeure. An extension of the time for performance of the

obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation. Respondents may initiate dispute resolution under Section XIII regarding EPA's determination within 15 days after receipt of the determination. In any such proceeding, Respondents have the burden of proving that they are entitled to relief under ¶ 46 and that their proposed extension was or will be warranted under the circumstances.

49. The failure by EPA to timely complete any activity under the Settlement is not a violation of the Settlement, provided, however, that if such failure prevents Respondents from timely completing a requirement of the Settlement, Respondents may seek relief under this Section.

XIII. DISPUTE RESOLUTION

50. Unless otherwise provided in this Settlement, Respondents shall use the dispute resolution procedures of this Section to resolve any dispute arising under this Settlement.

51. A dispute will be considered to have arisen when one or more parties sends a written notice of dispute ("Notice of Dispute") to EPA. A notice is timely if sent within 45 days after receipt of the EPA notice or determination giving rise to the dispute or within 15 days in the case of a force majeure determination. Disputes arising under this Settlement must in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations may not exceed 20 days after the dispute arises unless EPA otherwise agrees. If the parties cannot resolve the dispute by informal negotiations, the position advanced by EPA is binding unless Respondents initiate formal dispute resolution under ¶ 52. By agreement of the parties, mediation may be used during this informal negotiation period to assist the parties in reaching a voluntary resolution or narrowing the matters in dispute.

52. **Formal Dispute Resolution**

a. **Statement of Position**. Respondents may initiate formal dispute resolution by serving on EPA, within 20 days after the conclusion of informal dispute resolution under ¶ 51, an initial Statement of Position regarding the matter in dispute. EPA's responsive Statement of Position is due within 20 days after receipt of the initial Statement of Position. All statements of position must include supporting factual data, analysis, opinion, and other documentation. A reply, if any, is due within 15 days after receipt of the response. If appropriate, EPA may extend the deadlines for filing statements of position for up to 45 days and may allow the submission of supplemental statements of position.

b. **Formal Decision**. The Deputy Director of the Superfund and Emergency Management Division, EPA Region 2, or, at the sole discretion of EPA, someone occupying a higher position, will issue a formal decision resolving the dispute ("Formal Decision") based on the statements of position and any replies and supplemental statements of position. The Formal Decision is binding on Respondents.

53. **Escrow Account**. For disputes regarding a Future Response Cost billing, Respondents shall: (a) establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the FDIC; (b) remit to that escrow account funds equal to the amount of the contested Future Response Costs; and (c) send to EPA copies of the

correspondence and of the payment documentation (e.g., the check) that established and funded the escrow account, including the name of the bank, the bank account number, and a bank statement showing the initial balance in the account. EPA may, in its unreviewable discretion, waive the requirement to establish the escrow account. Respondents shall cause the escrow agent to pay the amounts due to EPA under ¶ 44, if any, by the deadline for such payment in ¶ 44. Respondents are responsible for any balance due under ¶ 44 after the payment by the escrow agent.

54. The initiation of dispute resolution procedures under this Section does not extend, postpone, or affect in any way any requirement of this Settlement, except as EPA agrees. Stipulated penalties with respect to the disputed matter will continue to accrue, but payment is stayed pending resolution of the dispute, as provided in ¶ 57.

XIV. STIPULATED PENALTIES

55. Unless the noncompliance is excused under Section XII (Force Majeure), Respondents are liable to EPA for the following stipulated penalties:

a. for any failure: (i) to pay any amount due under Section XI; (ii) to establish and maintain financial assurance in accordance with Section IX; (iii) to establish any escrow account required under ¶ 53; (iv) to submit timely or adequate deliverables as specified in ¶ 7.1 of the SOW:

Period of Noncompliance	Penalty Per Noncompliance Per Day
1st through 14th day	$2,000
15th through 30th day	$4,000
31st day and beyond	$6,000

b. for any failure to submit timely or adequate deliverables required by this Settlement other than those specified in ¶ 55.a:

Period of Noncompliance	Penalty Per Noncompliance Per Day
1st through 14th day	$1,000
15th through 30th day	$2,000
31st day and beyond	$3,000

56. **Work Takeover Penalty**. If EPA commences a Work Takeover under ¶ 27, Respondents are liable for a stipulated penalty in the amount of $9,625,000. This stipulated penalty is in addition to the remedy available to EPA under ¶ 38 (Access to Financial Assurance).

57. **Accrual of Penalties**. Stipulated penalties accrue from the date performance is due, or the day a noncompliance occurs, whichever is applicable, until the date the requirement is completed or the final day of the correction of the noncompliance. Nothing in this Settlement prevents the simultaneous accrual of separate penalties for separate noncompliances with this Settlement. Stipulated penalties accrue regardless of whether Respondents have been notified of

their noncompliance, and regardless of whether Respondents have initiated dispute resolution under Section XIII, provided, however, that no penalties will accrue as follows:

a. with respect to a submission that EPA subsequently determines is deficient under ¶ 6.5 of the SOW, during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency;

b. with respect to a deficient initial submission under ¶ 6.5(a) of the SOW if the deficiency is corrected in the resubmitted submission under ¶ 6.5(b) of the SOW; or

c. with respect to a matter that is the subject of dispute resolution under Section XIII, during the period, if any, beginning on the 21st day after the later of the date that EPA's Statement of Position is received or the date that Respondents' reply thereto (if any) is received until the date of the Formal Decision under ¶ 52.b.

58. **Demand and Payment of Stipulated Penalties**. EPA may send Respondents a demand for stipulated penalties. The demand will include a description of the noncompliance and will specify the amount of the stipulated penalties owed. Respondents may initiate dispute resolution under Section XIII within 30 days after receipt of the demand. Respondents shall pay the amount demanded or, if they initiate dispute resolution, the uncontested portion of the amount demanded, within 30 days after receipt of the demand. Respondents shall pay the contested portion of the penalties determined to be owed, if any, within 30 days after the resolution of the dispute. Each payment for: (a) the uncontested penalty demand or uncontested portion, if late; and (b) the contested portion of the penalty demand determined to be owed, if any, must include an additional amount for Interest accrued from the date of receipt of the demand through the date of payment. Respondents shall make payment at https://www.pay.gov using the link for "EPA Miscellaneous Payments Cincinnati Finance Center," including references to the Site/Spill ID number listed in ¶ 78, and the purpose of the payment. Respondents shall send a notice of this payment to EPA. The payment of stipulated penalties and Interest, if any, does not alter any obligation by Respondents under the Settlement.

59. Nothing in this Settlement limits the authority of EPA: (a) to seek any remedy otherwise provided by law for Respondents' failure to pay stipulated penalties or interest; or (b) to seek any other remedies or sanctions available by virtue of Respondents' noncompliances with this Settlement or of the statutes and regulations upon which it is based, including penalties under Section 122(l) of CERCLA, 42 U.S.C. § 9622(1), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), provided, however, that EPA may not seek civil penalties under Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any noncompliance for which a stipulated penalty is provided for in this Settlement, except in the case of a willful noncompliance with this Settlement.

60. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued under this Settlement.

61. No action or decision by EPA pursuant to this Settlement gives rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XV. COVENANTS BY EPA

62. **Covenants for Respondents**. Subject to ¶ 64, EPA covenants not to sue or to take administrative action against Respondents under Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), regarding the Work and Future Response Costs.

63. The covenants under ¶ 62: (a) take effect upon the Effective Date; (b) are conditioned on the complete and satisfactory performance by Respondents of the requirements of this Settlement; (c) extend to the successors of each Respondent but only to the extent that the alleged liability of the successor of the Respondent is based solely on its status as a successor of the Respondent; and (d) do not extend to any other person.

64. **General Reservations**. Notwithstanding any other provisions of this Settlement, EPA reserves, and this Settlement is without prejudice to, all rights against Respondents regarding the following:

a. liability for failure by Respondents to meet a requirement of this Settlement;

b. liability for performance of a response action other than the Work;

c. liability arising from the past, present, or future disposal, release or threatened release of Waste Materials outside of the Site;

d. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry regarding the Site;

e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments; and

f. criminal liability.

65. Subject to ¶ 62, nothing in this Settlement limits any authority of EPA to take, direct, or order all appropriate action to protect public health and welfare and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, or to request a Court to order such action.

XVI. COVENANTS BY RESPONDENTS

66. **Covenants by Respondents**

a. Subject to ¶ 67, Respondents covenant not to sue and shall not assert any claim or cause of action against the United States under CERCLA, RCRA § 7002(a), the United States Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, the State Constitution, State law, or at common law regarding the Work or Future Response Costs.

b. Subject to ¶ 67, Respondents covenant not to seek reimbursement from the Fund through CERCLA or any other law for costs of the Work or Future Response Costs.

67. **Respondents' Reservation**. The covenants in ¶ 66 do not apply to any claim or cause of action brought, or order issued, after the Effective Date by the United States to the extent such claim, cause of action, or order is within the scope of a reservation under ¶¶ 64.a through 64.d. Notwithstanding the foregoing, this Settlement shall not have any effect on claims or causes of action that Respondents have or may have pursuant to Section 113(f) of CERCLA, 42 U.S.C. § 9613(f), against the United States or any of its agencies or departments, other than EPA, based on their alleged status as potentially responsible parties pursuant to CERCLA, 42 U.S.C. § 9607(a), relating to the Work, Future Response Costs, or this Settlement.

XVII. EFFECT OF SETTLEMENT; CONTRIBUTION

68. The Parties agree that: (a) this Settlement constitutes an administrative settlement under which each Respondent has, as of the Effective Date, resolved its liability to the United States within the meaning of Sections 113(f)(2), 113(f)(3)(B), and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2), 9613(f)(3)(B), and 9622(h)(4); and (b) each Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, or as may be otherwise provided by law, for the "matters addressed" in this Settlement. The "matters addressed" in this Settlement are the Work and Future Response Costs, provided, however, that if the United States exercises rights against Respondents under the reservations in ¶¶ 64.a through 64.e, the "matters addressed" in this Settlement do not include those response costs or response actions that are within the scope of the exercised reservation.

69. Each Respondent shall, with respect to any suit or claim brought by it for matters related to this Settlement, notify EPA no later than 60 days prior to the initiation of such suit or claim. Each Respondent shall, with respect to any suit or claim brought against it for matters related to this Settlement, notify EPA within 10 days after service of the complaint on such Respondent. In addition, each Respondent shall notify EPA within 10 days after service or receipt of any Motion for Summary Judgment and within 10 days after receipt of any order from a court setting a case for trial.

70. **Res Judicata and Other Defenses**. In any subsequent administrative or judicial proceeding initiated against any Respondent by EPA or by the United States on behalf of EPA for injunctive relief, recovery of response costs, or other appropriate relief relating to the Site, Respondents shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, claim preclusion (res judicata), issue preclusion (collateral estoppel), claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case.

71. Nothing in this Settlement diminishes the right of the United States under Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and (3), to pursue any person not a party to this Settlement to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

XVIII. RECORDS

72. **Respondents' Certification**. Each Respondent certifies individually that: (a) to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Site since receipt of EPA Region 2's letter to Respondents, dated January 5, 2024; and (b) it has fully complied with any and all EPA requests for information under Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927(a).

73. **Retention of Records and Information**

a. Respondents shall retain, and instruct their contractors and agents to retain, the following documents and electronically stored data ("Records") until 10 years after the Notice of Completion of the TRI/FFS Work under ¶ 6.7 of the SOW (the "Record Retention Period"):

(1) All records regarding Respondents' liability under CERCLA regarding the Site;

(2) All reports, plans, permits, and documents submitted to EPA in accordance with this Settlement, including all underlying research and data; and

(3) All data developed by, or on behalf of, Respondents in the course of performing the Work.

b. Respondents shall retain all Records regarding the liability of any person under CERCLA regarding the Site during the Record Retention Period.

c. At the end of the Record Retention Period, Respondents shall notify EPA that it has 90 days to request Respondents' Records subject to this Section. Respondents shall retain and preserve their Records subject to this Section until 90 days after EPA's receipt of the notice. These record retention requirements apply regardless of any corporate record retention policy.

74. Respondents shall provide to EPA, upon request, copies of all Records and information required to be retained under this Section. Respondents shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

75. **Privileged and Protected Claims**

a. Respondents may assert that all or part of a record requested by EPA is privileged or protected as provided under federal law, in lieu of providing the record, provided that Respondents comply with ¶ 75.b, and except as provided in ¶ 75.c.

b. If Respondents assert a claim of privilege or protection, they shall provide EPA with the following information regarding such record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a record, Respondents shall provide the record to EPA in redacted form to mask the privileged or protected portion only. Respondents shall retain all records that they claim to be privileged or protected until EPA has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in Respondents' favor.

c. Respondents shall not make any claim of privilege or protection regarding: (1) any data regarding the Site, including all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological or engineering data, or the portion of any other record that evidences conditions at or around the Site; or (2) the portion of any record that Respondents are required to create or generate in accordance with this Settlement.

76. **Confidential Business Information Claims**. Each Respondent is entitled to claim that all or part of a record submitted to EPA under this Section is Confidential Business Information ("CBI") that is covered by Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate all records or parts thereof submitted under this Settlement which it claims are CBI and label them as "claimed as confidential business information" or "claimed as CBI." Records that a submitter properly labels in accordance with the preceding sentence will be afforded the protections specified in 40 C.F.R. Part 2, Subpart B. If the records are not properly labeled when they are submitted to EPA, or if EPA notifies the submitter that the records are not entitled to confidential treatment under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such records without further notice to the submitter.

77. Notwithstanding any provision of this Settlement, EPA retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIX. NOTICES AND SUBMISSIONS

78. All agreements, approvals, consents, deliverables, modifications, notices, notifications, objections, proposals, reports, waivers, and requests specified in this Settlement must be in writing unless otherwise specified. Whenever a notice is required to be given or a report or other document is required to be sent by one Party to another under this Settlement, it must be sent as specified below. All notices under this Section are effective upon receipt, unless otherwise specified. In the case of emailed notices, there is a rebuttable presumption that such notices are received on the same day that they are sent. Any Party may change the method, person, or address applicable to it by providing notice of such change to all Parties.

As to EPA:	*via email to*: Jennifer LaPoma Remedial Project Manager lapoma.jennifer@epa.gov and Krista Yacovone, Esq. Assistant Regional Counsel yacovone.krista@epa.gov Re: Site/Spill ID # A25D
As to the Regional Financial Management Officer:	*via regular mail to*: Chief, Resource Management/Cost Recovery Section, Superfund and Emergency Management Division U.S. Environmental Protection Agency, Region 2 290 Broadway, 18th Floor New York, NY 10007 Re: Site/Spill ID # A25D
As to EPA Cincinnati Finance Center:	*via email to*: cinwd_acctsreceivable@epa.gov Re: Site/Spill ID # A25D
As to the State:	*via email to*: Kyle Kuebler kyle.kuebler@dep.nj.gov
As to All Respondents:	*via email to*: Gary R. Long EHS Support gary.long@ehs-support.com and David Himmelheber Geosyntec Consultants dhimmelheber@geosyntec.com

As to Beazer East, Inc.:

via email to:
Kurt Paschl, P.G., Senior Environmental Manager
Beazer East, Inc.
c/o Three Rivers Management, Inc.
600 River Avenue, Suite 200
(412) 208-8863
kurt.paschl@trmi.biz

and

Charles E. McChesney II, Esq.
Chief Legal Counsel
Beazer East, Inc.
c/o Three Rivers Management, Inc.
600 River Avenue, Suite 200
Pittsburgh, PA 15212
(412) 208-8839
charles.mcchesney@trmi.biz

As to Honeywell International Inc.:

via email to:
Rich Galloway
Senior Remediation Manager
Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950
(973) 455-4640
rich.galloway@honeywell.com

and

Jeremy Karpatkin, Esq.
Arnold & Porter
601 Massachusetts Avenue, NW
Washington D.C. 20001
(202) 942-5564
jeremy.karpatkin@arnoldporter.com

As to Morton International, LLC:	*via email to*: Leanne Murdie Austrins Remediation Manager Environmental Remediation and Restoration The Dow Chemical Company 1000 East Main Street, East End Midland, MI 48674 (989) 638-0535 laustrins1@dow.com and Joel F. Visser, Esq. Senior Counsel – Environmental, Health & Safety The Dow Chemical Company 2211 H.H. Dow Way Midland, MI 48674 (989) 636-2186 jfvisser@dow.com
As to Occidental Chemical Corporation:	*via email to*: Steven Bagnull Project Manager, Glenn Springs Holdings, Inc. 2 Tower Center Boulevard, 8th Floor East Brunswick, NJ 08816 (972) 972-7535 steven_bagnull@oxy.com and Laura Whiting, Esq. Vice President and General Counsel, Glenn Springs Holdings, Inc. 14555 Dallas Parkway, Suite 400 Dallas, TX 75254 (972) 687-7515 laura_whiting@oxy.com
As to Public Service Electric and Gas Company:	*via email to*: Louis Hahn Senior Project Manager 4000 Hadley Road South Plainfield, NJ 07080 (862) 849-5623 louis.hahn@pseg.com

and

Michael C. Kondrla, Esq.
Assistant Counsel – Environmental
80 Park Plaza, MC 10
Newark, NJ 07102
(973) 430-6211
michael.kondrla@pseg.com

XX. APPENDICES

79. The following appendices are attached to and incorporated into this Settlement:

"Appendix A" is the map of OU1 and the Site.

"Appendix B" is the map of OU2.

"Appendix C" is the Statement of Work.

XXI. MODIFICATIONS TO SETTLEMENT

80. Except as provided in ¶ 25 (Modifications to the Work), both nonmaterial and material modifications to the Settlement and ¶ 6.5 of the SOW (Approval of Deliverables) must be in writing and are effective when signed (including electronically signed) by the Parties.

XXII. SIGNATORIES

81. The undersigned representative of EPA and each undersigned representative of a Respondent certifies that he or she is authorized to enter into the terms and conditions of this Settlement and to execute and legally bind such party to this Settlement.

XXIII. INTEGRATION

82. This Settlement constitutes the entire agreement among the Parties regarding the subject matter of the Settlement and supersedes all prior representations, agreements, and understandings, whether oral or written, regarding the subject matter of the Settlement embodied herein.

XXIV. EFFECTIVE DATE

83. This Settlement is effective when EPA issues notice to Respondents that the Regional Administrator or their delegatee has signed the Settlement.

Signature Page for Administrative Settlement Agreement and Order on Consent for TRI/FFS regarding the Lower Hackensack River Superfund Site

IT IS SO AGREED AND ORDERED:

BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

Evangelista, Pat
Digitally signed by Evangelista, Pat
Date: 2024.10.03 15:38:15 -04'00'

____
Dated

Pat Evangelista, Director
Superfund and Emergency Management Division, Region 2

Signature Page for Administrative Settlement Agreement and Order on Consent for TRI/FFS regarding the Lower Hackensack River Superfund Site

FOR BEAZER EAST, INC.:

9/30/2024
Dated

Michael Slenska
President
Beazer East, Inc.
c/o Three Rivers Management, Inc.
600 River Avenue, Suite 200
Pittsburgh, PA 15212

Signature Page for Administrative Settlement Agreement and Order on Consent for TRI/FFS regarding the Lower Hackensack River Superfund Site

FOR HONEYWELL INTERNATIONAL INC.:

9/30/2024
Dated

Benny Dehghi
VP. Global Remediation and Site Redevelopment
855 S Mint St, Charlotte, NC 28202

Signature Page for Administrative Settlement Agreement and Order on Consent for TRI/FFS regarding the Lower Hackensack River Superfund Site

FOR MORTON INTERNATIONAL, LLC:

October 2, 2024

Dated

Laurence S. Kirsch, Partner
Sidley Austin, LLP
Counsel to Morton International, LLC
1501 K Street, N.W.
Washington, DC 20005

Signature Page for Administrative Settlement Agreement and Order on Consent for TRI/FFS regarding the Lower Hackensack River Superfund Site

FOR OCCIDENTAL CHEMICAL CORPORATION:

9/30/2024
Dated

Juan P. Somoano
Vice President
14555 Dallas Parkway, Suite 400
Dallas, Texas 75254

Signature Page for Administrative Settlement Agreement and Order on Consent for TRI/FFS regarding the Lower Hackensack River Superfund Site

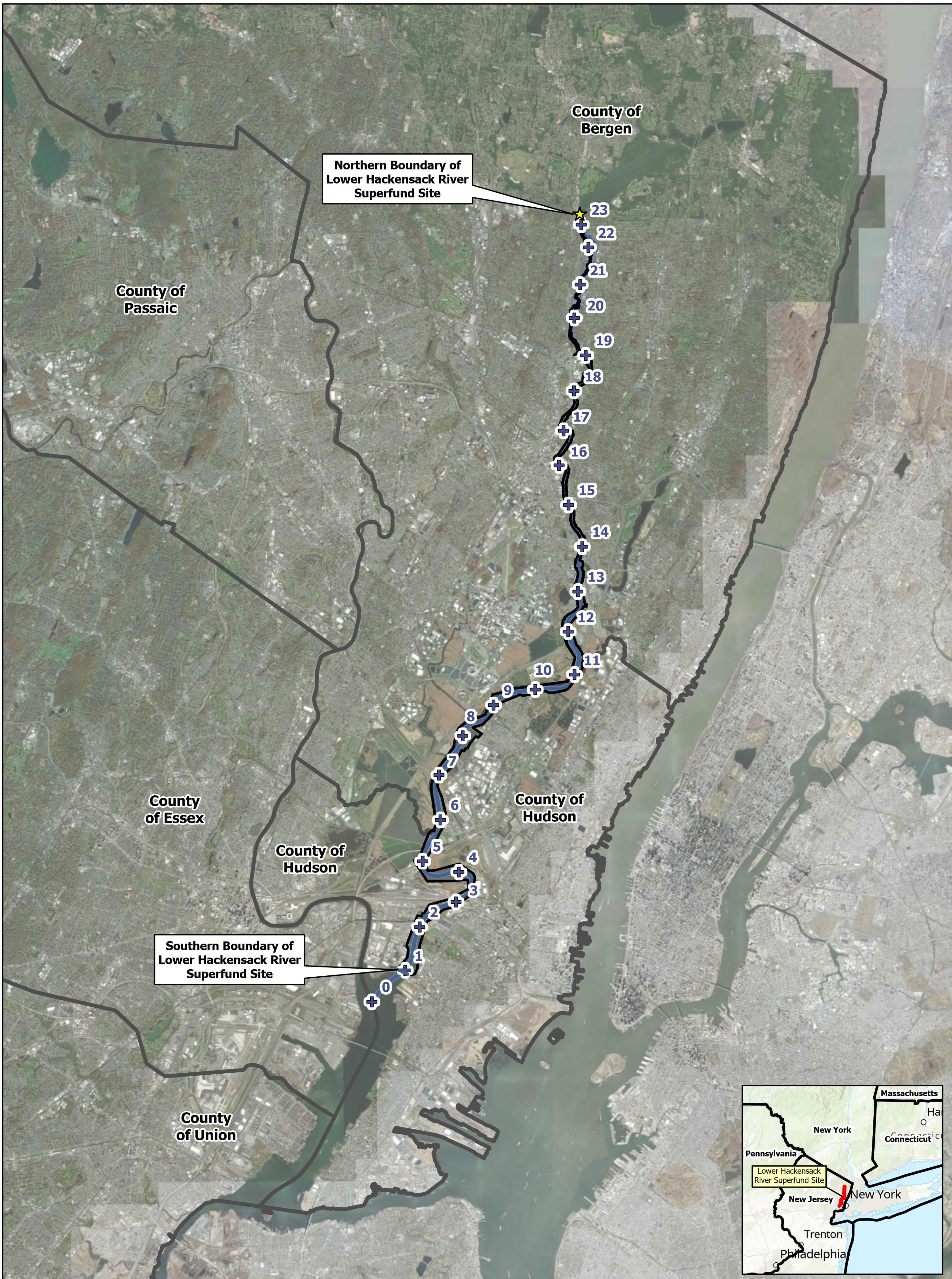
FOR PUBLIC SERVICE ELECTRIC AND GAS COMPANY:

9/29/24
Dated

Kim C Hanemann

Kim C. Hanemann
President & Chief Operating Officer
80 Park Plaza, T4
Newark, NJ 07102

APPENDIX A



- ★ Oradell Dam
- ✚ River Mile Points
- Lower Hackensack River
- EPA Site Boundary
- County Boundary

N
W E
S

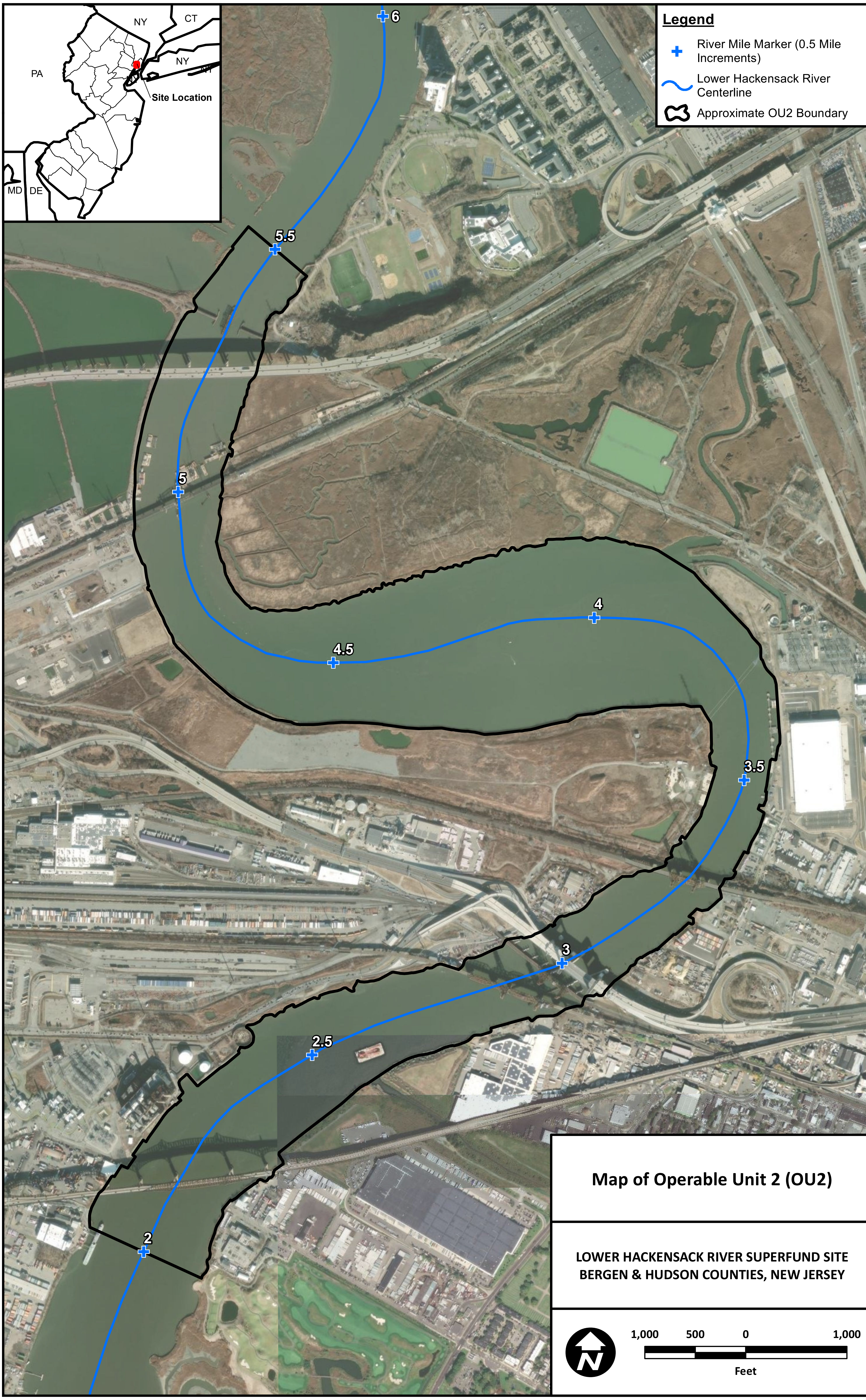
0 1 2 3 4 Miles

Source:
- Hackensack River Section data obtained from EPA, February 2023.
- Oradell Dam location information obtained from Figure 1, "Site Location Map", HRS Documentation Record, March 2022.
- County Boundary data downloaded from New Jersey Geographic Information Network (NJGIN), March 2023.
- Esri basemap: NYC OpenData, New Jersey Office of IGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, FAO, NOAA.

Appendix A
Map of the Site (OU1)
Lower Hackensack River Superfund Site
Bergen & Hudson Counties, New Jersey

CDM Smith

APPENDIX B



Map of Operable Unit 2 (OU2)

LOWER HACKENSACK RIVER SUPERFUND SITE
BERGEN & HUDSON COUNTIES, NEW JERSEY

J:\EHSS_GIS\SGP\Superfund\20240829_OU2_Figs\Layout_OU2.mxd

Printed 09/30/2024 9:17:23 AM by Justine.Decker

APPENDIX C

TARGETED REMEDIAL INVESTIGATION/FOCUSED FEASIBILITY STUDY
STATEMENT OF WORK
OPERABLE UNIT 2
LOWER HACKENSACK RIVER SUPERFUND SITE
Bergen and Hudson Counties, State of New Jersey
EPA Region 2

September 2024

TABLE OF CONTENTS

1. INTRODUCTION

1.1 **Purpose of the Statement of Work**. This Statement of Work ("SOW") sets forth the procedures, requirements, and recommendations for implementing the Work to develop and perform the targeted remedial investigation ("TRI") and the focused feasibility study ("FFS") for Operable Unit 2 ("OU2") of the Site, as well as developing and performing baseline sampling in Operable Unit 1 ("OU1") to identify current conditions at the Site and support the assessment of interim remedial alternatives for OU2. Further, this SOW is a part of and incorporated into the Administrative Settlement Agreement and Order on Consent, CERCLA Docket No. 02-2024-2006 ("Settlement").

1.2 **Objectives of the Work**. The purpose of the OU2 TRI/FFS is to delineate the nature and extent of contamination in, identify potential risks posed by contamination in, and evaluate different cleanup response options for the area designated as OU2 of the Site, where existing data indicate that the presence of elevated concentrations of contaminants, including 2,3,7,8-tetrachlorodibenzodioxin (known as "2,3,7,8-TCDD"), mercury, chromium, polycyclic aromatic hydrocarbons (known as "PAHs"), and total polychlorinated biphenyls (known as "PCBs"), may serve as potential sources of contamination to the Site. The purpose of the baseline sampling is to identify current conditions for the Site, which, together with the OU2 TRI/FFS, will inform the selection of an appropriate interim remedial alternative for OU2 that achieves significant risk reduction by addressing sources of contamination that present a risk to human health and the environment and/or the potential to migrate within the Site. The OU2 TRI/FFS and OU1 baseline sampling will be conducted as part of the Work in a manner that ensures the collection of baseline data to characterize current conditions for the Site, and as specified in this SOW, facilitates development of the OU2 conceptual model.

1.3 The terms used in this SOW that are defined in CERCLA, in regulations promulgated under CERCLA, and/or in the Settlement have the meanings assigned to them in CERCLA, in such regulations, and/or in the Settlement, except that the term "Paragraph" or "¶" means a paragraph of the SOW and that the term "Section" means a section of the SOW, unless otherwise stated. If there is a conflict between this SOW and the Settlement, the provisions of the Settlement shall govern.

1.4 At the completion of the OU2 TRI/FFS, EPA will be responsible for identifying a preferred interim remedial alternative for OU2, soliciting and reviewing public comments on a Proposed Plan, and selecting an interim remedy for OU2 and will document any such selection in a record of decision. The interim remedial action alternative selected by EPA will meet the cleanup standards specified in CERCLA Section 121. As specified in CERCLA Section 104(a)(1), as amended, EPA or its representatives will provide oversight of Respondents' activities throughout the OU2 TRI/FFS. EPA expects the OU2 interim remedy would achieve risk reduction by addressing sources of contamination that present a risk to human health and the environment and/or the potential to migrate within the Site before a remedial investigation and feasibility study ("RI/FS") for the overall Site is completed. Neither performance of an interim remedy for OU2 nor the development of an RI/FS for the overall Site are part of this SOW or Settlement.

1.5 Modifications to the SOW will follow procedures described in Sections VII (Performance of the Work) and XXI (Modifications to Settlement) in the Settlement. Respondents shall refer to the Guidance for Conducting Remedial Investigations and Feasibility Studies, OSWER 9355.3-01, EPA/540/G-89/004 (Oct. 1988) ("RI/FS Guidance"), in performing their responsibilities under this SOW.

1.6 This SOW is not intended to modify current EPA guidance or regulations, including the guidance documents referenced in ¶ 8.1. Current EPA guidance and regulations shall control in the event of any conflict between the SOW and current EPA guidance and regulations.

2. COMMUNITY INVOLVEMENT

2.1 As requested by EPA, Respondents shall conduct community involvement activities under EPA's oversight as provided for and in accordance with this Section. Such activities may include designation of a Community Involvement Coordinator ("CI Coordinator") and implementation of a Technical Assistance Grant ("TAG"), if utilized.

2.2 Community Involvement Responsibilities

EPA has the lead responsibility for developing and implementing community involvement activities at sites. This includes compliance with 40 C.F.R. § 300.430(c)(2) (outlining the lead agency's community involvement responsibilities) and the preparation of a Community Involvement Plan ("CIP") specifying the community involvement activities expected to be undertaken during the remedy response.

(a) Such activities include not only notifying the community of the availability of a TAG but also, where appropriate, potential use of EPA's Technical Assistance Services for Communities contract. EPA is also responsible for compliance with Section 300.815(a) (making the administrative record available to the public) and Section 300.430(f)(3)(i)(C) (providing reasonable opportunity for submission of comments on the OU2 TRI/FFS and Proposed Plan), respectively.

(b) **Respondents' CI Coordinator**. As requested by EPA, Respondents shall designate and notify EPA of Respondents' CI Coordinator. Respondents may hire a contractor for this purpose. Respondents' notice shall include the name, title, and qualifications of their CI Coordinator. Respondents' CI Coordinator is responsible for providing support regarding EPA's community involvement activities, including coordinating with EPA's CI Coordinator regarding responses to the public's inquiries and/or requests for information or data relating to OU2 and/or the baseline sampling.

(c) As requested by EPA, Respondents shall participate in and/or conduct community involvement activities, including participation in: (1) the preparation of information regarding the field sampling activities for dissemination to the public, with consideration given to including local and mass media and/or internet notification; (2) public meetings that may be held or sponsored by EPA to explain activities at or relating to OU2 and/or the baseline sampling; and (3) support related to environmental justice and overburdened communities, which may require additional public support meetings and/or interpretation/translation services.

(d) Respondents' support of EPA's community involvement activities may include providing online access to EPA-approved submissions and updates of deliverables to: (1) any Community Advisory Groups; (2) any TAG recipients and their advisors; and (3) other entities to provide them with a reasonable opportunity for review and comment. EPA may describe in its CIP Respondents' responsibilities for community involvement activities. All community involvement activities conducted by Respondents at EPA's request are subject to EPA's oversight. Upon EPA's request, Respondents shall establish, as early as feasible, a community information repository at or near OU2, as provided in the CIP, to house one copy of the administrative record file. Respondents may establish an electronic copy of the administrative record file at the community information repository.

2.3 Information for the Community. As requested by EPA, Respondents shall develop and provide to EPA information about the OU2 TRI/FFS, including: (1) any validated data from field sampling activities as provided in ¶ 2.3(a) below; (2) schedules prepared under Section 7; (3) dates that Respondents completed each task listed in the schedules; and (4) digital photographs of the Work being performed, together with descriptions of the Work depicted in each photograph, the purpose of the Work, the equipment being used, and the location of the Work. The EPA Project Coordinator may use this information for communication to the public via EPA's website, social media, and/or local and mass media. The information provided to EPA shall be suitable for sharing with the public (e.g., drafted in plain language) and the education levels of the community as indicated in EJScreen. Translations shall be in the dominant language(s) of communities with limited English proficiency.

(a) As requested by EPA, Respondents shall describe all community impact mitigation activities to be performed: (i) to reduce impacts (e.g., air emissions, dust, odor, traffic, noise, temporary relocation, negative economic effects, etc.) to residential areas, schools, playgrounds, healthcare facilities, or recreational public areas frequented by community members ("Community Areas") during field sampling activities; (ii) to conduct monitoring in Community Areas of impacts from field sampling activities; (iii) to communicate validated sampling data; (iv) to make adjustments during field sampling activities in order to further reduce negative impacts to affected Community Areas; and (v) any additional activities as appropriate. Descriptions shall contain information about impacts to Community Areas that is sufficient to assist EPA's Site team in performing the evaluations recommended under the *Superfund Community Involvement Handbook*, OLEM 9230.0-51 (Mar. 2020). EPA's Remedial Project Managers and CI Coordinator will review and approve all proposed activities.

3. TARGETED REMEDIAL INVESTIGATION

3.1 **Previous Investigation Summary/Data Usability Assessment Report**. Respondents shall prepare and submit a Previous Investigation Summary/Data Usability Assessment ("PIS/DUA") Report for review and approval by EPA. The purpose of the PIS/DUA Report is to summarize the findings of previous investigations and to determine the usability and applicability of existing data to support the OU2 TRI/FFS process and/or inform the baseline sampling scope for OU1. Available data may include results from any previous sampling or other investigations that have been conducted (e.g., data included in EPA's Hazard Ranking System documentation for the Site, data collected under federal and New Jersey state remediation authorities). Respondents will refer to Table 2-1 of the *Guidance for Conducting Remedial Investigations and Feasibility Studies*, OSWER 9355.3-01, EPA/540/G-89/004 (Oct. 1988), for a comprehensive list of data collection information sources. EPA's Site Characterization Summary Report will be a primary data source included in the PIS/DUA Report. The report shall summarize available analytical data (e.g., sediment chemistry, surface water chemistry, biological tissue) and physical data (e.g., bathymetry, substrate characteristics), as well as other data relating to the varieties and quantities of hazardous substances, pollutants, or contaminants in OU2. The report will also identify and summarize the findings of investigations, including hydrodynamic/sediment transport studies. As part of the data usability assessment component, available data for the Site will be reviewed and the PIS/DUA Report will describe why available information was selected, or not selected, to support the development of the OU2 Conceptual Site Model ("CSM") and TRI Work Plan. The PIS/DUA Report will identify whether existing data may be appropriate for qualitative and/or quantitative consideration to inform the scope of OU2 TRI sampling and OU1 baseline sampling. The PIS/DUA Report will also identify potential datasets that may be considered in the assessment of regional background conditions during the OU2 TRI/FFS process.

3.2 **Conceptual Site Model Development and Report**. The CSM Report is a representation that summarizes and helps project teams visualize and understand available information. Presentation of the CSM will consider potential contaminant sources, release mechanisms, fate and transport, and exposure pathways, and will identify sediments in OU2 that potentially act as sources of contamination to the Site and would be further assessed as part of the TRI. The CSM will be developed using data and information (e.g., geospatial data, hydrodynamic/sediment transport models, bathymetry) identified in the PIS/DUA Report and approved by EPA for the intended application. The CSM for OU2 will be updated for the OU2 TRI Report as additional data and information become available through the OU2 TRI process or other acceptable sources. Respondents shall develop (or, as appropriate, update) the OU2 CSM for EPA review and approval. The OU2 CSM Report will be based upon available site-specific information identified in the PIS/DUA Report. Respondents shall provide the CSM and an accompanying summary report that documents the information used in developing the CSM, why any available information was not used, and recommendations regarding data gaps. Respondents shall update the CSM, as requested by EPA, to account for information obtained during the OU2 TRI.

3.3 Identification of Preliminary RAOs, PPMs, and ARARs Memorandum. Respondents will prepare a memorandum for EPA review and approval that summarizes preliminary remedial action objectives ("RAOs"), preliminary performance metrics ("PPMs"), and preliminary applicable or relevant and appropriate requirements ("ARARs") potentially appropriate for an interim remedy in OU2. Respondents shall develop preliminary RAOs, which are medium-specific goals for protecting human health or the environment that specify the chemicals of concern, exposure route(s) and receptor(s) and reflect efforts to significantly reduce sediment contaminant concentrations in OU2 (EPA OLEM Directive No. 9200.1-166, June 2022), and PPMs, which are targets to demonstrate that the RAOs have been met. Respondents shall also preliminarily identify potential federal and New Jersey state chemical-specific, location-specific, and action-specific ARARs to assist in the refinement of RAOs and PPMs. ARAR identification will continue to be refined and presented in the OU2 FFS Report after the nature and extent of contamination for OU2 is refined in the TRI and interim remedial action alternatives are developed. Respondents shall also incorporate federal and New Jersey state potential ARAR and "To Be Considered" materials provided by EPA before submission of, or with review comments on, each deliverable.

3.4 Targeted Remedial Investigation Work Plan. Respondents shall submit an OU2 TRI work plan ("TRI WP") to EPA for review and approval, consistent with OSWER 9835.1(c).

(a) The OU2 TRI WP shall include a description of the TRI Work to be performed, including the scope, methodologies, and schedule for completion. Details regarding specific sample locations, methodologies, and schedule for completion will be presented in subsequent sampling plan related documents (e.g., the Field Sampling Plan). The OU2 TRI WP shall also include all requirements under ¶ 3.5 unless EPA decides that one or more provisions is not necessary. The OU2 TRI WP will describe a strategy and sampling plan that: (1) defines the nature and extent of contamination located in OU2 including source sediments, which are sediments that serve as sources of contamination to the Site and/or pose potential current or future unacceptable risk to public health and the environment due to the release or threatened release of chemicals; (2) documents the fate and transport of contaminants in OU2, including potential transport from OU2; and (3) identifies areas of OU2 that may serve as sources of contamination to the Site. Data identified in the EPA-approved PIS/DUA Report may be presented for EPA's consideration as part of a sampling strategy which seeks to compare and evaluate use of existing data in the development of the OU2 TRI.

(b) Respondents will develop a specific project scope based on EPA's remedial strategy for the Site focused on identifying sediments in OU2 that act as sources of contamination to the Site, either as a source through migration within the Site or as a source of unacceptable risk, which could be addressed through an interim remedy to control the source(s). If commingled contamination (e.g., hazardous substances comingled with pollutants or contaminants) is discovered at OU2, then addressing the constituents contained in the commingled contamination shall be incorporated into the FFS. The OU2 TRI WP shall provide for: (1) determining the nature and extent of the contamination located in OU2; (2) identifying sediments in OU2 that act as sources of contamination to the Site; (3) delineating any areas with non-aqueous phase liquids ("NAPL") in OU2; (4) assessing risks to human health, sensitive populations (40 C.F.R. § 300.430(d)(2)(vii)), and the environment within OU2 using select quantitative risk information focusing on exposures that most obviously or significantly contribute to unacceptable risk; (5) conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered; and (6) collecting data to adequately establish and characterize baseline conditions at the Site (including meteorology affecting the Site, 40 C.F.R. § 300.430(d)(2)(i)).

(c) Existing data for OU1, to be identified in the PIS/DUA Report, will be utilized to document existing conditions such that it informs the development of the baseline data collection. The first round of baseline sampling will be conducted under this Settlement in accordance with this paragraph. EPA may direct Respondents to conduct a second round of baseline sampling under the Settlement if EPA has not entered into or issued another enforcement instrument for the Site under which the second round of baseline sampling is to be conducted. If EPA directs Respondents to conduct the second round of baseline sampling under the Settlement before EPA provides a written notice of completion in accordance with ¶ 6.7, Respondents will update the TRI WP. The collective data, including existing data identified in the PIS/DUA Report and data collected during the baseline sampling conducted under this Settlement, will be used, along with any additional baseline sampling conducted under any other enforcement instrument that EPA may enter into or issue for the Site, to develop a comprehensive baseline dataset of data collected under an EPA-approved Quality Assurance Project Plan ("QAPP") to characterize pre-interim remedy conditions in OU1. EPA anticipates that the baseline sampling will include the collection of biota, surface sediment, surface sediment texture, sediment cores, bathymetry, hydrology, and surface water/suspended solids chemistry samples, which will be necessary to develop the OU2 TRI/FFS and inform the selection of an appropriate interim remedy to control sources for OU2. EPA anticipates that the first round of baseline sampling will generally be conducted in parallel with the OU2 TRI sampling.

(d) In its description of the methodologies to be used to perform any TRI Work, the OU2 TRI WP shall consider the environmental footprint of all such activities and, to the extent practicable, take actions to minimize said footprint. The OU2 TRI WP shall be consistent with the *Consideration of Greener Cleanup Activities in the Superfund Cleanup Process* (Aug. 2, 2016). These considerations for Greener Cleanups are not intended to allow cleanups that do not satisfy threshold requirements for protectiveness, or do not meet other site-specific cleanup objectives. Greener Cleanup activities refer to strategies designed to help minimize the environmental footprint of cleaning up contaminated sites and ensure a protective remedy within the applicable CERCLA statutory and regulatory framework.

3.5 TRI WP Deliverables. Respondents shall submit the following deliverables for EPA review and approval unless EPA decides that one or more provisions is not necessary:

(a) **Quality Assurance Project Plan**. Respondents shall collect, produce, evaluate, or use environmental information under a QAPP that applies to OU2 sampling and the baseline sampling and is reviewed and approved by EPA. No environmental information, as defined by AQS/ANSI E-4, will be collected, produced, evaluated, or used without an EPA-approved QAPP. The QAPP will be consistent with EPA Directive CIO 2105.1 (Environmental Information Quality Policy, 2021), consistent with the most recent version of ASQ/ANSI E-4 (Quality Management Systems for Environmental Information and Technology Programs Requirements with Guidance For Use), and consistent with EPA/G-5 (EPA requirements for QAPPs).

(1) **Field Sampling Plan**. The Field Sampling Plan ("FSP") shall be written so that personnel unfamiliar with the project will be able to gather the samples and field information required. The FSP shall be prepared in accordance with the RI/FS Guidance and include sampling for OU2 and the baseline sampling.

(b) **Emergency Response and Notification Plan**. The Emergency Response ("ER") and Notification Plan shall describe procedures to be used in the event of an accident or emergency at OU2 (e.g., power outages, water impoundment failure, treatment plant failure, slope failure, etc.). The ER and Notification Plan shall include:

(1) Name of the person or entity responsible for responding in the event of an emergency incident;

(2) Plan and date(s) for meeting(s) with the local community, including local, state, and federal agencies involved in the cleanup, as well as local emergency squads and hospitals;

(3) If applicable, a Spill Prevention, Control, and Countermeasures Plan consistent with the requirements of 40 C.F.R. Part 112 (describing measures to prevent, and contingency plans for, spills and discharges);

(4) Notification activities in accordance with ¶ 5.6(b) (Release Reporting) in the event of a release of hazardous substances requiring reporting under Sections 103 or 111(g) of CERCLA or Section 304 of the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. § 11004; and

(5) A description of all necessary actions to ensure compliance with Section 5 (Meetings, Reporting, and Permits) in the event of an occurrence during

the performance of the Work that causes or threatens a release of a hazardous substance, pollutant, or contaminant at or from OU2 that constitutes an emergency or may present an immediate threat to human health or welfare or the environment.

(c) **Health and Safety Plan**. The Health and Safety Plan ("HASP") shall describe all activities to be performed to protect on-site personnel from physical, chemical, and all other hazards posed by any project-related field activities. The HASP shall: (1) be prepared in accordance with EPA's *Emergency Responder Health and Safety Manual* and Occupational Safety and Health Administration requirements under 29 C.F.R. §§ 1910 and 1926; and (2) address RI Work and include contingency planning. EPA does not approve the HASP but will review it to ensure that all necessary elements are included and that the plan provides for the protection of human health and the environment.

(d) **Summary of Field Activities**. Respondents shall report on field activities as part of the monthly progress report process outlined in ¶ 5.2. The description of field activities conducted shall include information regarding sampling, including the sample media, locations, number of samples collected, any difficulties encountered during this work and their resolution, and the reporting of data that were validated during the reporting month. Anticipated field activities for the upcoming two-month period will also be described in the monthly progress reports.

(e) **Reuse Assessment**. Upon EPA request, Respondents will prepare a reuse assessment report for OU2 in accordance with the SOW, TRI WP, and applicable EPA guidance. The reuse assessment will inform the development of realistic use assumptions. The reuse assessment may also inform the risk information evaluations when estimating potential future risks and preliminary RAOs and support the interim remedy selection process. Respondents shall update the reuse assessment, as requested by EPA, to account for information obtained during the TRI.

(f) **Human Health Risk Information Evaluation and Ecological Risk Information Evaluation**. Respondents will develop select quantitative human health and ecological quantitative risk information evaluations. For OU2, Respondents shall develop a Human Health Risk Information Evaluation ("HHRIE") and Ecological Risk Information Evaluation ("ERIE") in accordance with applicable EPA guidance on risk information needed to support selection of an appropriate interim remedial alternative, including Risk Assessment Guidance for Superfund Volume 1 (Part A) (EPA-540-1-89002, December 1989) and Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments (OSWER 9285.7-25, EPA-540-R-97-006, June 1997). Consistent with EPA guidance, the OU2 HHRIE and ERIE will document whether there is a source of unacceptable risk that will support the selection of an appropriate interim remedial alternative for OU2 that is consistent with EPA's remedial strategy for the Site, including controlling sources with the potential for unacceptable human health and ecological risk.

(1) The HHRIE will document the quantification of risks from, the following exposure pathways: (1) ingestion of fish/crab tissue; and (2) incidental ingestion of surface water and mudflat sediments by recreators (e.g., kayakers). Exposure assumptions will be established in the TRI WP; the appropriateness and applicability of exposure assumptions utilized in the RI/FS of nearby estuarine sediment Superfund sites located in EPA Region 2 will be evaluated in the TRI WP for their applicability to the HHRIE for OU2. Risks/hazards will be estimated using 95% upper confidence limit ("UCL") values. Chemicals associated with unacceptable risk will be considered as having the potential for unacceptable risk to human health that can also be mitigated by a source control interim action.

(2) The ERIE will utilize OU2 data to evaluate whether concentrations of OU2-related contaminants are associated with unacceptable risk to ecological receptor populations that may be exposed within the spatial extent of OU2 or if adverse effects to ecological receptor populations would not be expected. Concentrations resulting in adverse ecological risk would indicate a potential for adverse effects to ecological receptor populations and a potential need for further evaluation. The ERIE will evaluate: (1) maximum and 95% UCL detected concentrations in surface water compared to surface water toxicity benchmarks derived for the protection of direct contact exposure to aquatic life; (2) maximum and 95% UCL detected concentrations in the top six inches of sediment from both the river and the mudflats compared to sediment toxicity benchmarks for the protection of benthic invertebrate receptors; (3) maximum and 95% UCL detected concentrations in blue crab and forage fish tissue compared to critical body residues for the protection of blue crab and forage fish; (4) food web modeling to select upper trophic mammalian and avian receptor populations that may be exposed within the spatial extent of OU2 using maximum and 95% UCL detected concentrations in media as exposure point concentrations ("EPCs") to estimate ingestion exposure pathways; (5) maximum and 95% UCL detected concentrations in porewater compared to aqueous toxicity benchmarks for the protection of benthic invertebrates; (6) Acid Volatile Sulfide/Simultaneously Extracted Metals analysis in the top six inches of sediment to understand the bioavailability and potential toxicity of select metals to benthic invertebrate receptors; and (7) sediment toxicity tests and bioaccumulation tests from samples collected within the river and mudflats. For the evaluated lines of evidence, contaminants with maximum detected concentrations and 95% UCL EPCs exceeding effects benchmarks (e.g., lowest observed effects concentration, lowest observed adverse effect level) established for each exposure pathway will be considered as having the potential for unacceptable risk to ecological receptors that can be mitigated by a source control interim action.

(g) **Preliminary Institutional Control Evaluation**. Respondents shall submit a preliminary institutional control ("IC") evaluation memorandum for EPA review and approval. The IC evaluation will describe potential land and/or resource use restrictions and their relationship to the preliminary RAOs. The IC evaluation will also identify potential IC instruments (or layered instruments), including those who are potentially responsible for implementing, maintaining, and enforcing the ICs. The IC evaluation will include an estimate for how long IC instruments (or layered instruments) shall remain in place. The IC evaluation will inform development of the FFS (comparative analysis of alternatives) and Institutional Controls Implementation and Assurance Plan ("ICIAP").

(h) **OU2 TRI Report**. Respondents shall submit to EPA for review and approval, pursuant to ¶ 6.5 (Approval of Deliverables), a draft OU2 TRI Report consistent with the SOW, TRI WP, and EPA guidance and regulations. This report shall summarize results of field activities to characterize OU2, including the sources of, nature and extent of, and fate and transport of contamination, as well as any presence of NAPL. The TRI Report will also present the results of the baseline sampling conducted in conjunction with the OU2 TRI sampling. Respondents will provide a supplement to the OU2 TRI Report if Respondents conduct a second round of baseline sampling after the OU2 TRI sampling. Respondents will refer to the RI/FS Guidance for an outline of the report format and contents. Following receipt of written comments from EPA, Respondents will prepare and submit final OU2 TRI Report which satisfactorily addresses these comments.

3.6 **Treatability Study**. Respondents shall conduct treatability studies, except where Respondents can demonstrate to EPA's satisfaction that they are not needed. Respondents shall provide EPA with the following deliverables for review:

(a) **Identification of Candidate Treatability Study Technologies Memorandum**. This summarizes a literature review of applicable technologies for EPA review and approval. The memorandum will present available information on performance, relative costs, applicability, removal efficiencies, operation and maintenance requirements, and implementability of candidate treatability study technologies. The memorandum will include a final assessment and recommendation on which, if any, technologies warrant a treatability study.

(b) **Treatability Test Work Plan**. If treatability testing is proposed based on review and approval of the Identification of Candidate Treatability Study Technologies Memorandum, Respondents shall submit a treatability test work plan, including a schedule, FSP, QAPP, and HASP, for EPA review and approval as appropriate.

(c) **Treatability Study Evaluation Report**. Upon completion of the treatability studies, Respondents shall submit a treatability study evaluation report that includes:

(1) An evaluation of the effectiveness, implementability, and cost of each technology;

(2) An evaluation of the actual results of each technology as compared with predicted results;

(3) An analysis and interpretation of testing results; and

(4) An evaluation of full-scale application of the technology, including a sensitivity analysis identifying the key parameters affecting full-scale operation.

4. FOCUSED FEASIBILITY STUDY

4.1 **Focused Feasibility Study**. The OU2 FFS shall identify and evaluate (based on treatability testing, where appropriate) remedial alternatives for an interim remedy to prevent, mitigate, or otherwise respond to or remediate the release or threatened release of hazardous substances, pollutants, or contaminants located in OU2. If there is potential commingling of hazardous substances with pollutants or contaminants in OU2, then the evaluation of the potential performance and cost of the treatment technologies should also take into account the ability of those treatment technologies to address the commingled contamination (e.g., hazardous substances comingled with pollutants or contaminants) and any adverse impacts the comingled contamination may have on the ability and cost of the treatment technologies to address the release or threatened release located in OU2. The interim remedial alternatives evaluated for OU2 shall include the range of alternatives described in the NCP, 40 C.F.R. § 300.430(e), and shall include remedial actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable and which are consistent with a final remedy. Respondents shall also evaluate potential impacts that treatment technologies have on other hazardous substances, pollutants, or contaminants located in OU2 that would not be addressed by the treatment technologies. In evaluating the alternatives, Respondents shall address the factors required by Section 121 of CERCLA and 40 C.F.R. § 300.430(e).

4.2 **OU2 FFS Deliverables**. Respondents shall develop the following OU2 FFS deliverables in accordance with the RI/FS Guidance, as it applies to interim remedies. Respondents shall submit the following deliverables for EPA review and approval unless EPA decides that one or more provisions is not necessary:

(a) **Refine RAOs, PPMs, and ARARs**. Respondents shall prepare a memorandum for EPA review and approval revising, based on the findings of the TRI, the RAOs, PPMs, and ARARs potentially appropriate for an interim remedy focused on source control in OU2. Respondents will include potential chemical-specific, location-specific, and action-specific ARARs for OU2, as described in ¶ 3.3. Respondents will review and, if necessary, modify the OU2-specific RAOs, and PPMs, that were established during discussions between EPA and Respondents. These modified PPMs may identify contaminants and media of interest, exposure pathways and receptors, and acceptable performance metrics that represent source control and/or a significant reduction in risk. To the extent applicable to a potential OU2 interim remedy, the memorandum will discuss the consideration of sensitive subgroups in determining the acceptable exposure levels for sites with systemic toxicants, in accordance with 40 C.F.R. § 300.430(e)(2)(i)(A)(1). In addition, the memorandum will discuss whether the ARARs may not be sufficiently protective given the presence of multiple contaminants or multiple pathways of exposure for known or suspected carcinogens at OU2, in accordance with 40 C.F.R. § 300.430(e)(2)(i)(A)(2).

(b) **Identify and Evaluate Remedial Technologies and Assemble Alternatives**. Following EPA's approval of the memorandum for RAOs, PPMs, and ARARs under ¶ 4.2(a), Respondents shall prepare and submit a memorandum assembling combinations of technologies, and the media to which they would be applied, into interim remedial alternatives to address source areas in OU2. The memorandum will be reviewed and approved by EPA in consultation with the New Jersey Department of Environmental Protection ("NJDEP"). Respondents shall: (i) develop general response actions for each medium of interest defining containment, treatment, excavation, pumping, or other actions, singly or in combination, that may be taken to satisfy the RAOs for OU2; (ii) identify volumes or areas of media to which general response actions might be applied, taking into account the requirements for protectiveness as identified in the RAOs and the chemical and physical characterization of OU2; and (iii) identify and screen the technologies applicable to each general response action to eliminate those that cannot be implemented technically for OU2. The general response actions will be further refined to specify remedial technology types (e.g., the general response action of treatment can be further defined to include chemical or biological technology types). Respondents shall assemble the selected representative technologies into interim remedial alternatives representing a range of treatment and containment combinations, as appropriate. Guidance for interim action allow for a more limited assessment of alternatives, focusing the alternative development and screening step to identify an appropriate number of potentially effective and implementable alternatives to be analyzed in detail (see 55 Fed. Reg. 8704, Mar. 8, 1990).

(c) **OU2 FFS Report**. Respondents shall prepare a draft OU2 FFS Report pursuant to ¶ 6.5 (Approval of Deliverables). Respondents shall refer to Table 6-5 of the RI/FS Guidance for report content and format, where applicable to an interim remedy. The OU2 FFS Report and the administrative record shall provide sufficient information to support the remedial alternatives analysis and interim remedy selection under Sections 113(k) and 117(a) of CERCLA.

The FFS Report shall include a comparative analysis of alternatives. Upon EPA approval of the memoranda provided for in ¶¶ 4.2(a) and (b), Respondents shall conduct a comparative analysis of interim remedial alternatives to evaluate the relative performance of each alternative in relation to the nine evaluation criteria identified below. The range of interim remedial alternatives shall include, as appropriate, options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but which are varied in the types of treatment, the amount treated, and the method through which long-term residuals or untreated wastes are managed. The analysis will include options involving treatment and/or containment; and a no-action alternative. The evaluation criteria include: (1) overall protection of human health and the environment; (2) compliance with ARARs; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility, or volume through treatment; (5) short-term effectiveness; (6) implementability; (7) cost; (8) state (or support agency) acceptance; and (9) community acceptance.

The analysis shall (consistent with 40 C.F.R. § 300.430(e)(9)(iii)(C) and *Consideration of Climate Resilience in the Superfund Cleanup Process for Non-Federal National Priorities List Sites*, OLEM 9355.1-120 (June 30, 2021)) include an assessment of the vulnerability of the protectiveness of each alternative to the impacts of Climate Change and, for each alternative where appropriate, an evaluation of the possible addition of further measures to ensure the resilience of a particular alternative's protectiveness to the impacts of Climate Change. In addition, where appropriate for particular evaluation criteria, Respondents shall also evaluate, to the extent practicable, opportunities to reduce the environmental footprint of each interim remedy alternative. Such evaluation shall include the consideration of green remediation best management practices and/or application of the ASTM Standard for Greener Cleanups, consistent with *Consideration of Greener Activities in the Superfund Cleanup Process* (Aug. 6, 2016).

For each interim remedy alternative, Respondents shall provide: (1) a description of the alternative that outlines the waste management strategy involved and identifies the key ARARs associated with each alternative; and (2) a discussion of the individual criterion assessment. If Respondents do not have direct input on criterion (8), state (or support agency) acceptance, or criterion (9), community acceptance, these would be addressed by EPA. Note that criteria (8) and (9) would not be addressed until after the Proposed Plan.

The draft OU2 FFS Report will include an appendix addressing environmental justice concerns about disproportionate impacts. Consistent with 40 C.F.R. § 300.430(e)(2)(i)(A)(1) and with consideration of communities with environmental justice concerns identified in the HHRIE and ERIE, Respondents shall identify different interim remedial alternatives in the OU2 FFS to address, if applicable and in consultation with and as approved by EPA, environmental justice concerns regarding the potential for disproportionate impacts from OU2, including through OU2's contribution to cumulative impacts on the affected community. Evaluation of the potential for disproportionate impacts shall consider indicators of population vulnerability and pollution burden using EJScreen; as well as other available data on population vulnerability and pollution burden (including public health outcomes reflecting cumulative impacts) and information obtained during community outreach efforts.

Concurrent with ¶ 4.2(d), Respondents shall prepare and submit a memorandum revising the ICs in ¶ 3.5(g) based on the findings of the TRI. Respondents will review and, if necessary, modify the site-specific interim and permanent ICs that were established by EPA prior to or during discussions between EPA and Respondents. ICs need to be enforceable under CERCLA, rather than relying on local controls, such as zoning. The ICs evaluation shall also identify how the IC components fit with the relevant criteria outlined in the NCP (40 C.F.R. § 300.430(e)(9)(iii)), such as: compliance with ARARs; long-term effectiveness and permanence; short-term effectiveness; implementability; cost; state acceptance; and community acceptance. The IC analysis shall be submitted for review and approval by EPA and added as an appendix to the draft OU2 FFS Report.

(d) Following receipt of written comments from EPA, Respondents will prepare and submit a final OU2 FFS Report which satisfactorily addresses EPA's comments.

5. MEETINGS, PERMITS, AND REPORTS

5.1 Meetings

(a) **Kickoff Meeting**. Within 30 days of the Effective Date of the Settlement, Respondents shall schedule a kickoff meeting with technical staff, EPA, and other stakeholders (for a mutually agreeable date) to discuss the SOW, a visit to OU2, and document review needs. The meeting will also be used to outline project-specific requirements, including project objectives, data gaps, potential sampling and analysis methods, and performance goals. The kickoff meeting and systematic planning meetings referenced in ¶ 5.1(b) will be documented in the QAPP.

(b) **Systematic Project Planning Meetings**. Within the schedule set forth in the TRI WP, Respondents shall schedule systematic project planning meetings with EPA. Systematic project planning is a process that requires Respondents and EPA to convene during key milestones in the OU2 TRI/FFS schedule in order to review the sequence and scope of upcoming OU2 TRI/FFS tasks to determine if they are still appropriate or need modification.

(c) **Meetings**. Respondents shall participate in meetings and make presentations at the request of EPA during the preparation of the OU2 TRI/FFS. Topics will include anticipated problems, OU2 TRI/FFS updates, and/or new issues. Meetings will be scheduled at EPA's discretion.

5.2 Progress Reports. Commencing the first month following the Effective Date of the Settlement and until EPA approves the OU2 FFS Report, Respondents shall submit progress reports to EPA on a monthly basis, or as otherwise requested by EPA. The reports shall cover all activities that took place during the prior reporting period, including:

(a) Describing the actions that have been taken under this SOW;

(b) Including all results of sampling and tests and all other data received by Respondents and following data validation;

(c) Describing Work planned for the next two months, with schedules relating such Work to the overall project schedule for OU2 TRI/FFS completion;

(d) Describing all problems encountered in complying with the requirements of this SOW and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays;

(e) Describing any modifications to the work plans or other schedules Respondents have proposed or that have been approved by EPA; and

(f) Describing all activities undertaken in support of the CIP during the reporting period and those to be undertaken in the next six weeks.

5.3 Notice of Schedule Changes. If the schedule for any activity described in the Progress Reports, including deliverables required under Section 6, changes, Respondents shall notify EPA of such change at least seven days before they perform the activity or when otherwise reasonably known.

5.4 Investigation Derived Waste. Respondents may ship Investigation Derived Waste ("IDW") from the Site to an off-site facility only if they comply with Section 121(d)(3) of CERCLA, Section 300.440 ("Off-Site Rule") of the NCP, and *EPA's Guide to Management of Investigation Derived Waste*, OSWER 9345.3-03FS (Jan. 1992). Wastes shipped off-site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 C.F.R. § 261.4(e) shipped off-site for treatability studies, are not subject to Section 300.440 of the NCP.

5.5 Permits

(a) As provided in CERCLA Section 121(e) and Section 300.400(e) of the NCP, no permit is required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work). Where any portion of the Work that is not on-site requires a federal or state permit or approval, Respondents shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.

(b) Respondents may seek relief under the provisions of Section XII (Force Majeure) of the Settlement for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval referenced in ¶ 5.5(a) and required for the Work, provided that they have submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals.

(c) Nothing in the Settlement or this SOW constitutes a permit issued under any federal or state statute or regulation.

5.6 Emergency Response and Reporting

(a) **Emergency Action**. If any event occurs during performance of the Work that causes or threatens to cause a release of hazardous substances, pollutants, or contaminants on, at, or from OU2 and that either constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall: (1) immediately take all appropriate action to prevent, abate, or minimize such release or threatened release; (2) immediately notify the authorized EPA officer (as specified in ¶ 5.6(b)) orally; and (3) take such actions in consultation with the authorized EPA officer and in accordance with all applicable provisions of the HASP, the ER and Notification Plan, and any deliverable approved by EPA under the SOW.

(b) **Release Reporting**. Upon the occurrence of any event during performance of the RI Work that Respondents are required to report pursuant to Sections 103 and 111(g) of CERCLA, or Section 304 of EPCRA, Respondents shall immediately notify the authorized EPA officer orally.

(c) The "authorized EPA officer" for purposes of immediate oral notifications and consultations is the EPA Project Coordinator, the EPA Alternate Project Coordinator (if the EPA Project Coordinator is unavailable), or the National Response Center at (800) 424-8802 if neither EPA Project Coordinator is available.

(d) For any event covered by ¶ 5.6, Respondents shall: (1) within 14 days after the onset of such event, submit a report to EPA describing the actions or events that occurred and the measures taken, and to be taken, in response thereto; and (2) within 30 days after the conclusion of such event, submit a report to EPA describing all actions taken in response to such event.

(e) The reporting requirements under ¶ 5.6 are in addition to the reporting required by CERCLA Sections 103 and 111(g) or EPCRA Section 304.

6. DELIVERABLES

6.1 General Requirements for Deliverables

(a) Respondents shall submit deliverables for EPA approval or comment as specified in the SOW. If neither is specified, the deliverable does not require EPA's approval or comment. Paragraph 6.3 (Data Format Specifications) applies to all deliverables. Paragraph 6.4 (Certification) applies to any deliverable that is required to be certified. Paragraph 6.5 (Approval of Deliverables) applies to any deliverable that is required to be submitted for EPA approval. All deliverables shall be submitted by the deadlines in the OU2 TRI/FFS Schedule in ¶ 7.1.

(b) Respondents shall submit all deliverables in electronic form. Respondents shall submit deliverables in paper form if unable to submit electronically or if requested by EPA. Data format specifications for sampling, analytical and monitoring data, and spatial data are addressed in ¶ 6.3. All other deliverables shall be submitted in the electronic form specified by EPA's Project Coordinators. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5 x 11 inches, Respondents shall also provide EPA paper copies of such exhibits, if requested by EPA. Respondents shall not submit deliverables to EPA that are marked as "copyright," "trademark," or "confidential", as the deliverables are part of the administrative record for the Site and as such are available to the public.

6.2 State Copies. Respondents shall, at any time they send a deliverable to EPA, send a copy to NJDEP. EPA shall, at any time it sends a notice, authorization, approval, disapproval, or certification to Respondents, send a copy to NJDEP.

6.3 Data Format Specifications

(a) Sampling, analytical, and monitoring data shall be submitted in standard regional Electronic Data Deliverable ("EDD") format. Region 2's "Comprehensive Electronic Data Deliverable Specification Manual 4.0" (March 2016) explains the systematic implementation of EDD within EPA Region 2 and provides detailed instructions of data preparation and identification of data fields required for data submissions. Additional Region 2 EDD guidance and requirements documents, including the "Electronic Data Deliverables Valid Values Reference Manual" and tables, the "Basic Manual for Historic Electronic Data," the "Standalone EQuIS Data Processor User Guide," and EDD templates, can be found at https://www.epa.gov/superfund/region-2-superfund-electronic-data-submission. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.

(b) Spatial data, including spatially-referenced data and geospatial data, shall be submitted: (1) in either the ESRI shapefile or computer-aided design ("CAD") file format; and (2) as both (i) unprojected geographic coordinates in decimal degree format using North American Datum 1983 ("NAD83") or World Geodetic System 1984 ("WGS84") as the datum, and (ii) New Jersey State Plane Feet. If applicable, submissions shall include the collection method(s). Projected coordinates may optionally be included but shall be documented. Spatial data shall be accompanied by metadata, and such metadata shall be compliant with the Federal Geographic Data Committee ("FGDC") Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor complies with these FGDC and EPA metadata requirements and is available at https://www.epa.gov/geospatial/epa-metadata-editor.

(c) Each file shall include an attribute name for each site unit or sub-unit submitted. Consult https://www.epa.gov/geospatial/geospatial-policies-and-standards for any further available guidance on attribute identification and naming.

(d) Spatial data submitted by Respondents does not, and is not intended to, define the boundaries of OU2 or OU1.

6.4 Certification. All deliverables that require compliance with this Section must be signed (which may include electronically signed) by Respondents' Project Coordinator, or other responsible official of Respondents, and shall contain the following statement:

I certify under penalty of perjury that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6.5 Approval of Deliverables

(a) **Initial Submissions**

(1) After review of any deliverable that is required to be submitted for EPA approval under this SOW, EPA shall: (i) approve, in whole or in part, the submission; (ii) approve the submission upon specified conditions; (iii) disapprove, in whole or in part, the submission; (iv) provide written comments to guide revision and resubmission of the document; or (v) any combination of the foregoing.

(2) Responses to EPA's written comments and/or a revised submission, as directed by EPA, shall be submitted within 30 days of receiving written comments from EPA, unless otherwise agreed upon by EPA and Respondents.

(3) EPA also may modify the initial submission to cure deficiencies in the submission if: (i) EPA determines that disapproving the submission and awaiting a resubmission would cause substantial disruption to the Work; or (ii) previous submission(s) have been disapproved due to material defects and the deficiencies in the initial submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

(b) **Resubmissions**. Upon receipt of a notice of disapproval under ¶ 6.5(a) (Initial Submissions), or if required by a notice of approval upon specified conditions under ¶ 6.5(a), Respondents shall, within 30 days or such longer time as agreed upon by EPA and Respondents, correct the deficiencies and resubmit the deliverable for approval. After review of the resubmitted deliverable, EPA may: (1) approve, in whole or in part, the resubmission; (2) approve the resubmission upon specified conditions; (3) modify the resubmission; (4) disapprove, in whole or in part, the resubmission, requiring Respondents to correct the deficiencies; or (5) any combination of the foregoing.

(c) **Implementation**. Upon approval, approval upon conditions, or modification by EPA under ¶¶ 6.5(a) (Initial Submissions) or (b) (Resubmissions), of any deliverable, or any portion thereof: (1) such deliverable, or portion thereof, will be incorporated into and enforceable under the Settlement; and (2) Respondents shall take any action required by such deliverable, or portion thereof. The implementation of any non-deficient portion of a deliverable submitted or resubmitted under ¶¶ 6.5(a) or (b) does not relieve Respondents of any liability for stipulated penalties under Section XIV (Stipulated Penalties) of the Settlement.

(d) Notwithstanding the receipt of a notice of disapproval, Respondents shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA.

(e) In the event that EPA takes over some of the tasks, Respondents shall incorporate and integrate information supplied by EPA into those reports.

(f) Respondents shall not proceed with any activities or tasks dependent on the following deliverables until receiving EPA approval, approval on condition, or modification of such deliverables for OU2: TRI WP; QAPP; draft TRI Report; Treatability Test Work Plan; and draft FFS Report. While awaiting EPA approval, approval on condition, or modification of these deliverables, Respondents shall proceed with all other tasks and activities that may be conducted independently of these deliverables, in accordance with the schedule set forth under this Settlement.

(g) For all remaining deliverables not listed in ¶ 6.5(f), Respondents shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval of the submitted deliverable. EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity, or deliverable at any point during the Work.

(h) **Material Defects**. If an initially submitted or resubmitted plan, report, or other deliverable contains a material defect, and the plan, report, or other deliverable is disapproved or modified by EPA under ¶¶ 6.5(a) (Initial Submissions) or (b) (Resubmissions) due to such material defect, Respondents shall be deemed in violation of this Settlement for failure to submit such plan, report, or other deliverable timely and adequately. Respondents may be subject to penalties for such violation as provided in Section XIV (Stipulated Penalties) of the Settlement.

6.6 State Review and Comment. NJDEP will have a reasonable opportunity for review and comment prior to any EPA approval or disapproval under ¶ 6.5 of any deliverables that are required to be submitted for EPA approval.

6.7 Notice of Completion of TRI/FFS Work. When EPA determines that all OU2 TRI/FFS Work has been fully performed in accordance with this Settlement, with the exception of any continuing obligations required by this Settlement, including payment of Future Response Costs and retention of Records, EPA will provide written notice to

Respondents. Respondents may also request that EPA provide them with a written notice of completion of part of the Work if Respondents believe that Work has been fully performed in accordance with this Settlement, with the exception of any continuing obligations required by the Settlement. If EPA determines that any Work has not been completed in accordance with this Settlement, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the OU2 TRI WP, if appropriate, in order to correct such deficiencies. Respondents shall implement the modified and approved OU2 TRI WP and shall submit a modified draft OU2 TRI Report and/or OU2 FFS Report in accordance with the EPA notice. Failure by Respondents to implement the approved modified OU2 TRI WP shall be a violation of this Settlement.

7. SCHEDULE

7.1 All deliverables and tasks required under this SOW shall be submitted or completed by the deadlines or within the time durations listed in the OU2 TRI/FFS schedule set forth below. Respondents may submit proposed revised OU2 TRI/FFS schedules for EPA approval. Upon EPA's approval, the revised OU2 TRI/FFS schedule supersedes any prior OU2 TRI/FFS schedule.

Description of Deliverable, Task for OU2	**¶ Reference**	**Deadline**
Designate CI Coordinator	¶ 2.2(b)	Within 45 days after EPA request
Implement Technical Assistance Grant	¶ 2.2	Within 45 days after EPA request
Previous Investigation Summary/Data Usability Assessment Report	¶ 3.1	Within 90 days from receipt of EPA's Site Characterization Summary Report
CSM Report	¶ 3.2	Within 60 days of EPA approval of the PIS/DUA Report
Identification of Preliminary RAOs, PPMs and ARARs Memorandum	¶ 3.3	Within 60 days of EPA approval of the PIS/DUA Report
OU2 TRI WP	¶¶ 3.4(a)-(d)	Within 120 days after EPA approval of the CSM Report and Preliminary RAOs, PPMs and ARARs Memorandum
QAPP and FSP	¶ 3.5(a)	In accordance with TRI WP schedule, as approved by EPA
ER and Notification Plan	¶ 3.5(b)	In accordance with TRI WP schedule, as approved by EPA
HASP	¶ 3.5(c)	In accordance with TRI WP schedule, as approved by EPA
Summary of Field Activities	¶ 3.5(d)	Submitted as part of Monthly Progress Reports
Reuse Assessment Report	¶ 3.5(e)	At EPA's request and in accordance with TRI WP schedule, as approved by EPA
HHRIE and ERIE	¶ 3.5(f)	In accordance with TRI WP schedule, as approved by EPA

Preliminary IC Evaluation Memorandum	¶ 3.5(g)	In accordance with TRI WP schedule, as approved by EPA
OU2 TRI Report	¶ 3.5(h)	Within 150 days of final validation of OU2 TRI data
Identification of Candidate Treatability Study Technologies Memorandum	¶ 3.6(a)	In accordance with TRI WP schedule, as approved by EPA
Treatability Test Work Plan	¶ 3.6(b)	If necessary, 45 days after EPA approval of Identification of Candidate Treatability Study Technologies Memorandum (¶ 3.6(a))
Treatability Study Evaluation Report	¶ 3.6(c)	If necessary, 45 days after the completion of the Treatability Test is complete
Refine RAOs, PRGs, and ARARs Memorandum	¶ 4.2(a)	In accordance with TRI WP schedule, as approved by EPA
Identify and Evaluate Remedial Technologies and Assemble Alternatives Memorandum	¶ 4.2(b)	In accordance with TRI WP schedule, as approved by EPA
OU2 FFS Report	¶ 4.2(c)	In accordance with TRI WP schedule, as approved by EPA
Kickoff Meeting	¶ 5.1(a)	Meeting scheduled within 30 days after Effective Date

8. REFERENCES

8.1 The following regulations and guidance documents, among others, apply to the Work. Any item for which a specific URL is not provided below is available on one of the EPA web pages listed in ¶ 8.2:

(a) A Compendium of Superfund Field Operations Methods, OSWER 9355.014, EPA/540/P-87/001a (Aug. 1987).

(b) CERCLA Compliance with Other Laws Manual, Part I: Interim Final, OSWER 9234.1-01, EPA/540/G-89/006 (Aug. 1988).

(c) Guidance for Conducting Remedial Investigations and Feasibility Studies, OSWER 9355.3-01, EPA/540/G-89/004 (Oct. 1988).

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(ll) Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments ("ERAGS"), EPA/540/R-97/006, OSWER 9285.7-25 (June 1997).

(mm) Reuse Assessments: A Tool to Implement the Superfund Land Use Directive, OSWER 9355.7-06P (June 4, 2001), https://nepis.epa.gov/Exe/ZyPDF.cgi/P100GM6F.PDF?Dockey=P100GM6F.pdf.

(nn) ECO Update: The Role of Screening-Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments, EPA/540/F-01/014 (June 2001).

(oo) EPA QA Field Activities Procedure CIO 2105-P-02.1 (Sept. 23, 2014).

(pp) EPA Requirements for Quality Management Plans (QA/R-2), EPA/240/B-01/002 (Mar. 2001, reissued May 2006).

(qq) Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration, OSWER 9283.1-33 (June 2009).

(rr) Considering Reasonably Anticipated Future Land Use and Reducing Barriers to Reuse at EPA-Lead Superfund Remedial Sites, OSWER 9355.7-19 (Mar. 2010).

(ss) Consideration of Climate Resilience in the Superfund Cleanup Process for Non-Federal National Priorities List Sites (June 30, 2021).

(tt) Adaptive Site Management – A Framework for Implementing Adaptive Management at Contaminated Sediment Superfund Sites, EPA OLEM Directive No. 9200.1-166 (June 2022).

8.2 A more complete list may be found on the following EPA web pages:

(a) Superfund Laws, Policy, and Guidance: https://www.epa.gov/superfund/superfund-policy-guidance-and-laws.

(b) Collection of Methods: https://www.epa.gov/measurements/collection-methods.

(c) Quality Assurance:

(1) EPA QA Field Activities Procedures: https://www.epa.gov/irmpoli8/epa-qa-field-activities-procedures.

(2) Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions: https://www.epa.gov/sites/default/files/2016-11/documents/fem-lab-competency-policy_policy_updated_nov2016.pdf.

(3) Superfund Contract Laboratory Program: https://www.epa.gov/clp.

(4) Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846), Second Edition (July 1982): https://www.epa.gov/hw-sw846.

(5) Standard Methods for the Examination of Water and Wastewater: http://www.standardmethods.org/.

(6) Air Toxics - Monitoring Methods: https://www.epa.gov/amtic/compendium-methods-determination-toxic-organic-compounds-ambient-air.

(d) Superfund Redevelopment Basics: Policy, Guidance, and Resources: https://www.epa.gov/superfund-redevelopment-initiative/superfund-redevelopment-basics#policy.

(e) Superfund Green Remediation: https://www.epa.gov/superfund/superfund-green-remediation.

(f) Superfund Climate Resilience: https://www.epa.gov/superfund/superfund-climate-resilience.

(g) Ecological Risk Assessment: https://www.epa.gov/risk/ecological-risk-assessment.

8.3 For any regulation or guidance referenced in the Settlement or SOW, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the Work only after Respondents receive notification from EPA of the modification, amendment, or replacement.