

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

_____ )	
IN THE MATTER OF: )	
Alkali Lake Site, Lake County, Oregon, )	CERCLA Docket No. 10-2023-0017
Bayer CropScience, Inc., )	
Respondent. )	
Proceeding Under Sections 104, 107 )	<b>ADMINISTRATIVE SETTLEMENT</b>
and 122 of the Comprehensive )	<b>AGREEMENT AND ORDER ON</b>
Environmental Response, Compensation, )	<b>CONSENT FOR REMEDIAL</b>
and Liability Act, 42 U.S.C. §§ 9604, )	<b>INVESTIGATION/FEASIBILITY</b>
9607 and 9622. )	<b>STUDY</b>
_____ )	

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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 Bayer CropScience, Inc. (Respondent). This Settlement provides for the performance by Respondent of a remedial investigation and feasibility study (RI/FS) for the Alkali Lake Site (Site), and the payment by Respondent of certain response costs incurred by the United States at or in connection with 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, 42 U.S.C. §§ 9604, 9607 and 9622 (CERCLA). 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 on April 15, 2019, by the Regional Administrator of EPA Region 10 to the Remedial Program Manager for EPA Region 10 in EPA Regional Delegations R10 14-14-C and R10 14-14-D.
3. EPA and Respondent recognize that this Settlement has been negotiated in good faith and that the participation in this Settlement by Respondent, and the actions undertaken by Respondent in accordance with this Settlement, shall not be considered an admission of liability for any purpose. Respondent does not admit, and retains 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 Section IV (Findings of Fact) and V (Conclusions of Law and Determinations) of this Settlement. Respondent agrees to comply with and be bound by the terms of this Settlement and further agrees that it will not contest the basis or validity of this Settlement or its terms.

## II. PARTIES BOUND

4. This Settlement is binding upon EPA and upon Respondent and its successors and assigns. Any change in ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this Settlement.
5. The undersigned representative of Respondent certifies that she/he/they is fully authorized to enter into the terms and conditions of this Settlement and to execute and legally bind Respondent to this Settlement.
6. Respondent shall provide a copy of this Settlement to each contractor hired to perform the Work required by this Settlement and to each person representing Respondent with respect to the Site or the Work and shall condition all contracts entered into under this Settlement upon performance of the Work in conformity with the terms of this

Settlement. Respondent or its contractors shall provide written notice of the Settlement to all subcontractors hired to perform any portion of the Work required by this Settlement. Respondent shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work in accordance with the terms of this Settlement.

### III. DEFINITIONS

7. Unless otherwise expressly provided in this Settlement, terms used in this Settlement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement or its attached appendices, the following definitions shall apply:

“Affected Property” shall mean all real property at the Site and any other real property where EPA determines, at any time, that access, land, water, or other resource use restrictions are needed to implement the RI/FS, including, but not limited to, the following properties: Lake County parcel number 30S2E3000000300 which encompasses one area where over 25,000 55-gallon drums of chemical waste were crushed and buried in 12 three-foot deep trenches; four areas (2 soil incorporation areas and 2 soil test plots) where liquid wastes were released into soil within Lake County parcels number 30S23E000000303 and 30S23E000000700 as part of a State-approved treatability study; and a potentially affected area referred to as “Hutton Spring” located within Lake County parcels number 30S22E000000200, 30S23E000000302, and 30S23E000000400 where no investigation has been performed to date.

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§9601-9675.

“Day” or “day” shall mean a calendar day. In computing any period under this Settlement, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“Effective Date” shall mean the effective date of this Settlement as provided in Section XXXIII.

“Engineering Controls” shall mean constructed containment barriers or systems that control one or more of the following: downward migration, infiltration, or seepage of surface runoff or rain; or natural leaching migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.

“EPA” shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. §9507.

“Future Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing deliverables submitted pursuant to this Settlement, in overseeing implementation of the Work, or otherwise implementing, overseeing, or enforcing this Settlement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Section XI (Property Requirements) (including, but not limited to, cost of attorney time and any monies paid to secure or enforce access, including, but not limited to, the amount of just compensation), Section XV (Emergency Response and Notification of Releases), Paragraph 101 (Work Takeover), and Paragraph 124 (Access to Financial Assurance), including, but not limited to, the costs of any technical assistance grant under Section 117(e) of CERCLA, 42 U.S.C. § 9617(e), Section XVII (Dispute Resolution), and all litigation costs. Future Response Costs shall also include Agency for Toxic Substances and Disease Registry (ATSDR) costs incurred for the Site, all Interim Response Costs, and all Interest on Past Response Costs that has accrued pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

“Institutional Controls” or “ICs” shall mean Proprietary Controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (a) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (b) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the protectiveness of the response action pursuant to this Settlement; and/or (c) provide information intended to modify or guide human behavior at or in connection with the Site.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall 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. Rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

“Alkali Lake Site Special Account” shall mean the special account within the EPA Hazardous Substance Superfund, established for the Site by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3).

“Interim Response Costs” shall mean all costs, including but not limited to direct and indirect costs, (a) paid by the United States in connection with the Site between October 1, 2022, and the Effective Date, or (b) incurred prior to the Effective Date, but paid by the United States after that date.

“National Contingency Plan” or “NCP” shall mean 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.

“Non-Settling Owner” shall mean any person, other than Respondent, that owns or controls any Affected Property, including the State. The clause “Non-Settling Owner’s Affected Property” means Affected Property owned or controlled by Non-Settling Owner.

“ODEQ” shall mean the Oregon Department of Environmental Quality and any successor departments or agencies of the State.

“Paragraph” shall mean a portion of this Settlement identified by an Arabic numeral or an upper- or lower-case letter.

“Parties” shall mean EPA and Respondent.

“Past Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States paid at or in connection with the Site through September 30, 2022.

“Proprietary Controls” shall mean easements or covenants running with the land that (a) limit land, water, or other resource use and/or provide access rights and (b) are created pursuant to common law or statutory law by an instrument that is recorded in the appropriate land records office.

“RCRA” shall mean the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

“Respondent” shall mean Bayer CropScience, Inc.

“Section” shall mean a portion of this Settlement identified by a Roman numeral.

“Settlement” shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in Section XXX (Integration/Appendices)). In the event of conflict between this Settlement and any appendix, this Settlement shall control.

“Site” shall mean the Alkali Lake Site, encompassing the areas where Waste Material was disposed of and locations where Waste Material has migrated or been deposited within the 390 acres of fenced property owned by the State along with some portion of private properties situated outside the north and south boundaries of the fenced property where a State-approved treatability study was conducted, located approximately 60 miles north of the town of Lakeview and 35 miles southeast of the town of Christmas Valley in Lake County, Oregon, with State Highway 395 traversing the eastern border, and where hazardous substances have been deposited, stored, disposed, or placed, or otherwise come to be located, and which is depicted generally on the map attached as Appendix A to this Settlement.

“State” shall mean the State of Oregon.

“Statement of Work” or “SOW” shall mean the document describing the activities Respondent must perform to develop the RI/FS for the Site, as set forth in Appendix B to this Settlement. The Statement of Work is incorporated into this Settlement and is an enforceable part of this Settlement as are any modifications made thereto in accordance with this Settlement.

“Transfer” shall mean 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.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

“Waste Material” shall mean (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 Oregon Revised Statute, Chapters 465 and 466, and Oregon Administrative Rules, Chapter 340.

“Work” shall mean all activities and obligations Respondent is required to perform under this Settlement, except those required by Section XIII (Record Retention).

#### **IV. FINDINGS OF FACT**

8. The Site is in Lake County, Oregon, approximately 60 miles north of the town of Lakeview and 35 miles southeast of the town of Christmas Valley. The Site is comprised of as much as 390 acres of State-owned land along with portions of adjacent private properties where Waste Material is known or suspected to be present. The dimensions of the Site are expected to be revised based upon where Waste Material has been deposited, stored, deposited, placed, or otherwise come to be located, based upon the findings of the RI/FS. The latitude and longitude markings for the Site are 42° 58' 050.0" and 120° 02' 49.0", respectively, and the legal description is T30S, R23E, Section 18.
9. The Site is in a drainage basin of the scrub/shrub desert which slopes to the south. The average annual precipitation at the Site is 8.60 inches per year. Topographically, the outlets for surface water at the Site are evaporation and below ground migration. The depth to groundwater at the Site ranges from approximately 2.1 feet to 10.3 feet below ground surface.
10. There are three intermittent water bodies at the Site, known as Alkali Lake, West Alkali Lake, and the North Depression. These areas contain surface water following heavy rain events but are otherwise dry for the remainder of the year. In addition to receiving direct precipitation, during rain events groundwater expresses to the surface at both Alkali Lake and the North Depression, impacting sediments at the surface of both waterbodies. There are also three springs at the Site, referred to as Hutton Spring, 3/8 Mile Spring and West Spring.

11. From 1967 to 1973, a significant portion of the Site was owned and operated by Chemical Waste Storage and Disposal, Inc. (Chemical Waste). Between February 18, 1969, and December 7, 1971, approximately 25,513 drums of herbicide residue waste from Chipman Chemical Company, a division of Rhone-Poulenc in Portland, Oregon, were transported to the Site for storage and disposal. Chemical Waste stored the drums outside on pallets or directly on the ground without a liner or cover for almost five years. During that time, there was corrosion of the drums likely due to the unprotected storage and acidic nature of the waste, resulting in waste leakage onto the ground and into the groundwater.
12. The waste sent to the Site by Rhone-Poulenc contained waste streams from the production of the following herbicides: 11,588 drums of waste from production of 2,4-dichlorophenoxyacetic acid (2,4-D), referred to by Rhone-Poulenc as “2,4-D Bleed,” 9,340 drums of waste from the production of 2,4-dichlorophenol (2,4-DCP), referred to by Rhone-Poulenc as “2,4-DCP tar,” and 4,585 drums of waste from the production of 2-methyl-4-chlorophenoxyacetic acid (MCPA), referred to by Rhone-Poulenc as “MCPA tar.” The chemical composition of these wastes includes, but is not limited to, chlorinated and nonchlorinated phenolic compounds, caustics and acids
13. Chemical Waste conducted a treatability study in which a portion of the waste from the Rhone-Poulenc drums was placed directly onto the ground or applied to vegetation in four areas which together comprise about 25 acres of property. This disposal practice was performed under the auspices of State-approval to evaluate a hypothesis that sunlight and alkaline soil would neutralize and degrade the waste to such an extent as to render the waste harmless. The waste was applied to the soil at a rate of approximately 200 to 500 pounds per acre. It is unclear how much waste was treated in this manner or for how long a period, and there is also no data regarding efficacy of this experimental treatment.
14. By 1973, an estimated 20% of the drums of waste at the Site were crumbling or in a state of collapse. The State attempted by legal means to force Chemical Waste to address the ever-worsening drum storage and waste disposal situation. Chemical Waste ceased operations and abandoned the Site in 1973 without taking further action at the Site. The State proceeded to condemn the property and assume control of the drum storage area. In 1974, the State determined the drums of waste presented an emergency and requested emergency funding from the Oregon State Emergency Board to dispose of the wastes. In addition, the State requested that Rhone-Poulenc provide funding for disposal costs. Rhone-Poulenc responded to the State’s request by stating that although it believed that its financial obligation for the Site had been paid, it offered to provide technical assistance, laboratory analysis and planning for the disposal of wastes. The State did not accept Rhone-Poulenc’s offer.
15. The State sampled five of the Rhone-Poulenc drums in October of 1976 and found 2,4-D acid and phenols among other chemicals. In November and December of 1976, the State proceeded to employ a contractor who used a bulldozer to crush and bury the drums and their contents into eleven 2 to 3-foot-deep, 400-foot long, unlined trenches approximately 65 feet apart from one another. The liquid chemical waste from the drums was expelled



and dispersed throughout the area by the State's contractor as a result of this State-directed drum burial operation.

16. The drum crushing and chemical waste burial operation was halted part way through after concerns were raised by citizens and by EPA. EPA advised the State in writing of its concerns about the State's drum crushing and burial of wastes at the Site. EPA also visited the Site and obtained groundwater samples which found 2,4-dichlorophenoxyacetic acid at up to 12 feet below ground surface. EPA also detected what was noted as a pungent chemical odor in the disposal area and measured the groundwater in nearby Alkali Lake to be only 2.5 to 3 feet below ground surface, which is essentially the same depth as the burial trenches. EPA determined that groundwater flow from the trenches moved in a westerly direction, and that that the steepest groundwater gradient and the greatest potential for migration of the wastes via ground water will be away from Alkali Lake towards West Alkali Lake and southwest of the Site.
17. The State did not heed EPA's concerns and completed the drum crushing and waste burial operation, finishing the project by covering the crushed drums and dispersed chemicals with approximately two feet of soil and six inches of gravel. EPA asked the State to follow-up on this work by developing and implementing a monitoring program, installing a security fence around the trenches, taking action to prevent wind and water erosion, and preparing a contingency action.
18. Separate from and adjacent to the drum and chemical waste trenches is a mound with approximately 500 drums which Chemical Waste buried and covered in the early 1970s and was used for re-barreling and mixing of wastes from the chemical waste disposal area for experimental land application. The drums in this mound are also suspected to have contained paint, pigments, and solvents from Herin Panelboard in Beaverton, Oregon. The drum mound area has not been sufficiently characterized as there is only one composite surface oil sample for this area. Also, several herbicides were found in a groundwater well located downgradient from this area.
19. EPA returned to the Site in 1985 to sample groundwater and surface soil. The analytical results found that samples of groundwater and surface soil from the drum and chemical waste burial area contain concentrations of chlorinated dibenzofurans. Soil samples from the area also contained concentrations of 2,3,7,8-tetrachlorodibenzofuran and polychlorinated dibenzofurans, and the groundwater samples contained concentrations of 2,3,7,8-tetrachlorodibenzo-p-dioxin. In addition, the analytical results show that surface soil samples from two of the experimental soil incorporation areas contain concentrations of 2,3,7,8-tetrachlorodibenzo-p-dioxin, and polychlorinated dibenzofurans, including 2,3,7,8-tetrachlorodibenzofuran.
20. In 1986, EPA obtained exterior soil and interior dust samples from a vacant residence located approximately 3,000 feet southeast of the drum and chemical waste disposal trenches. The analytical results show concentrations of PCDD/PCDF congeners present in soil samples collected around the perimeter of the residence, while 2,3,7,8-TCDF was found in soil samples collected under downspouts from the house, and hexachloro-

dibenzo-p-dioxin (HxCDD) and heptachlorodibenzofuran (HpCDF) were found in dust samples from the interior of the house.

21. EPA next visited the Site in 1991 and 1992 and obtained groundwater, soil and biota samples. The analytical results show 2,4-dichlorophenoxyacetic acid and 2,4-dichlorophenol in samples from these media.
22. In 1992, the State installed a 3.9 mile long four-foot-high wire fence around Alkali Lake and the drum and chemical waste disposal trenches. The State then proceeded to purchase 390 acres of land at the Site in 1996. The fenced area is approximately 10.3 acres in size and is situated in the southeast corner of the State-owned land. On a few occasions, the State has added gravel to the tops of the trenches and has conducted groundwater monitoring at the Site on multiple occasions since 1977, including in 1991, 1992, 1993, 1996, 1997, 1998, 1999, 2000, 2001, 2006, 2009, 2011, 2013, and 2016.
23. The State obtained soil samples in 2001 from the experimental waste and soil incorporation areas. The analytical results demonstrate the 2,4-dichlorophenoxyacetic acid (2,4-D), 4,4-dichloro-diphenyl-dichloroethylene (DDE), 4,4-dichloro-diphenyl-trichloroethane (DDT), endosulfan I, endosulfan II, heptachlor, hexachlorobenzene, methyl chlorophenoxypropionic acid (MCP), pentachlorophenol, 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD), and 2,3,7,8-tetrachlorodibenzofuran (2,3,7,8-TCDF) were found in the soil.
24. In July of 2005, ODEQ prepared a human health and ecological risk assessment for the Site. The objective of the risk assessment was to evaluate the potential for adverse impacts to human health and the environment attributable to exposure to site-related contaminants. Based on the risk assessment, ODEQ's Land Quality Division prepared a Record of Decision (ROD) in April of 2007. The ROD concluded that the site posed no unacceptable risks provided the existing safeguards were maintained. There was no RI/FS done to support either the risk assessment or the ROD.
25. EPA performed an Expanded Site Inspection in 2010 and reported the results in the 2011 Final Alkali Lake Expanded Site Inspection Report. From April 27 through May 2, 2020, EPA obtained groundwater, surface soil and sediment samples, and analyzed these samples for the presence of chlorinated herbicides and pesticides, and dioxins/furans. Waste Material from these compound classes was found in some samples collected from multiple areas of the Site. In addition, 2,4,5, trichlorophenoxyacetic acid was found in groundwater samples collected during the Expanded Site Inspection. EPA also observed erosion of the soil and rock cover which the State had placed over the drum and chemical waste disposal trenches to such an extent that remnants of the crushed drums were visible.
26. The analytical results for the 2010 sampling event reported in the 2011 Final Alkali Lake Expanded Site Inspection Report may be summarized in the following manner.

- a. Surface soil samples from the drum and chemical waste disposal area showed three chlorinated herbicides, three chlorinated pesticides, and six dioxins/furans at concentrations of, at least, three times the background concentrations for these chemicals.
  - b. Sediment samples from the North Depression showed two chlorinated herbicides. at concentrations of, at least, three times the background concentrations for these chemicals
  - c. Sediment samples from West Alkali Lake showed two dioxins/furans at concentrations of, at least, three times the background concentrations for these chemicals.
27. Groundwater samples from the Site showed four chlorinated herbicides, one dioxin/furan, and 12 chlorinated pesticides at concentrations of, at least, three times background concentrations. The shallow groundwater samples nearest to the drum and chemical waste disposal area exhibited the greatest number of detections and the highest concentrations, with lower concentrations elsewhere. Sediment samples from the arroyo showed one chlorinated herbicide and three dioxins/furans. at concentrations of, at least, three times the background concentrations for these chemicals.
28. The North Depression is about five acres in size and is located approximately 1,000 feet northwest of the drum and chemical waste disposal trenches. The North Depression area is hydraulically and hydrogeologically complex, and groundwater discharges to the surface at this location. Historical results for groundwater elevation and possible flow direction are variable; however, contaminants associated with the disposal area have been found in a groundwater monitoring well located in the North Depression. Additional investigation is needed to refine the understanding of transport processes to and within this area.
29. The North Depression and West Alkali Lake are wetlands. Along with Alkali Lake, the North Depression and West Alkali Lake are dry most of the year but do contain water after heavy rain events. All three of these areas, along with West Spring, provide habitat for the Western Snowy Plover, a species of bird that is listed as threatened under the State and Federal Endangered Species Acts and is accordingly protected under that those laws. The Western Snowy Plover have been observed to arrive at the Site in mid-April each year to nest and remain through mid-September.
30. Hutton Spring is located about 1.25 miles northeast of the North Depression/ and 0.75 miles northeast of Alkali Lake. Hutton Spring is diked and has a permanent pool of water approximately 36 feet long by 10 feet wide by seven feet deep. 3/8 Mile Spring is a permanent water body located approximately 3/8 mile southeast of Hutton Springs, one mile northeast of the North Depression and 0.50 miles northeast of Alkali Lake. 3/8 Mile Spring is approximately 21.5 feet square and 1.15 feet deep. West Spring is located about 300 feet east of the drum and chemical waste disposal trenches. Hutton Spring and possibly 3/8 Mile Spring provide refuge for the Tui Chub, a species of fish that is listed

as threatened under the State and Federal Endangered Species Acts and whose habitat is accordingly protected under those laws.

31. The contaminants of concern in soil and sediment at Alkali Lake, West Alkali Lake, and the North Depression, include chlorinated herbicides, chlorinated pesticides, and dioxins/furans. Concentrations of chlorinated herbicides have also been detected in surface water samples from Hutton Spring. No contamination has been reported as detected in samples from 3/8 Mile Spring or West Spring.
32. The State has requested EPA intervention at the Site. EPA visited the Site on April 28, 2022 and discovered tracks and fecal droppings. There were also markings which depicted the presence of off-road vehicles. EPA also found gaps in the gravel cover overlying the drum and chemical waste burial area where the remnants of crushed drums could be seen just below the ground surface. In addition, EPA detected a pesticide odor while in the vicinity of this area and was informed by the State that this odor was so strong during warmer months that respirator protection was necessary to safely visit the area.

## **V. CONCLUSIONS OF LAW AND DETERMINATIONS**

33. Based on the Findings of Fact set forth above, and the administrative record, EPA has determined that:
  - a. The Alkali Lake Site is a “facility” as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
  - b. Sampling at the Site, as identified in the Findings of Fact above, has identified “hazardous substances” as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
  - c. Respondent is a “person” as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
  - d. Respondent is a responsible party under Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3), for having arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the Site.
  - e. The conditions described in the Findings of Fact above constitute an actual and/or threatened “release” of a hazardous substance from the Site 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, welfare, or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective remedial action and minimize litigation, 42 U.S.C. § 9622(a).

- g. EPA has determined that Respondent is qualified to conduct the RI/FS 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 Respondent complies with the terms of this Settlement.

## VI. SETTLEMENT AGREEMENT AND ORDER

34. 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 Respondent shall comply with all provisions of this Settlement, including, but not limited to, all appendices to this Settlement and all documents incorporated by reference into this Settlement. For the purpose of Section 113(g)(1) of CERCLA, 42 U.S.C. § 9613(g)(1), that Parties agree that, upon the Effective Date of this Settlement, remedial action under CERCLA shall be deemed to be scheduled and an action for damages (as defined in Section 101(6) of CERCLA, 42 U.S.C. § 9601(6)) must be commenced within 3 years after the completion of the remedial action.

## VII. DESIGNATION OF CONTRACTORS, PROJECT COORDINATORS, RPM/OSC

35. **Selection of Contractors, Personnel.** All Work performed under this Settlement shall be under the direction and supervision of qualified personnel. Within 60 days after the Effective Date, and before the Work outlined below begins, Respondent shall notify EPA in writing of the names, titles, addresses, telephone numbers, email addresses, and qualifications of the personnel, including contractors, subcontractors, consultants, and laboratories to be used in carrying out such Work. If, after the commencement of Work, Respondent retains additional contractors or subcontractors, Respondent shall notify EPA of the names, titles, contact information, and qualifications of such contractors or subcontractors retained to perform the Work at least 20 days prior to commencement of Work by such additional contractors or subcontractors. EPA retains the right, at any time, to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor or subcontractor, Respondent shall retain a different contractor or subcontractor and shall notify EPA of that contractor's or subcontractor's name, title, contact information, and qualifications within 20 days after EPA's disapproval. With respect to any proposed contractor, Respondent shall demonstrate that the proposed contractor demonstrates compliance with ASQ/ANSI E4:2014 "Quality management systems for environmental information and technology programs – Requirements with guidance for use" (American Society for Quality, February 2014), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," EPA/240/B-01/002 (Reissued May 2006) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review for verification based on objective assessment criteria (e.g., experience, capacity, technical expertise) and that they do not have a conflict of interest with respect to the project.

36. Within 30 days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of the Work required by this Settlement and shall submit to EPA the designated Project Coordinator's name, title, address, telephone number, email address, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during the Work. EPA retains the right to disapprove of a designated Project Coordinator who does not meet the requirements of Paragraph 36 (Selection of Contractors, Personnel). If, at any time, EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, title, contact information, and qualifications within 20 days following EPA's disapproval.
37. EPA has designated Jeffree Fetters of the Superfund and Emergency Response Division as its Remedial Project Manager/On-Scene Coordinator (RPM/OSC). EPA will notify Respondent of any change of the designated RPM/OSC. Communications between Respondent and EPA, and all documents concerning the activities performed pursuant to this Settlement, shall be directed to the RPM/OSC in accordance with Paragraph 46.a. All deliverables, notices, notifications, proposals, reports, and requests specified in this Settlement must be in writing, unless otherwise specified herein or by the RPM/OSC and must be submitted by email to Jeffree Fetters at [fetters.jeffree@epa.gov](mailto:fetters.jeffree@epa.gov).
38. The RPM/OSC shall have the authority lawfully vested in a remedial project manager and on-scene coordinator by the NCP. In addition, the RPM/OSC shall have the authority, consistent with the NCP, to halt, conduct, or direct any Work required by this Settlement, or to direct any other response action when s/he determines that conditions at the Site constitute an emergency or may present a threat to public health or welfare or the environment. Absence of the RPM/OSC from the area under study pursuant to this Settlement shall not be cause for stoppage or delay of Work.

## VIII. WORK TO BE PERFORMED

39. For any regulation or guidance referenced in the Settlement, 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 Respondent receives notification from EPA of the modification, amendment, or replacement.
40. Respondent shall conduct the RI/FS and prepare all plans in accordance with the provisions of this Settlement, the attached SOW, CERCLA, the NCP, and EPA guidance, including, but not limited to the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" ("RI/FS Guidance"), OSWER Directive # 9355.3-01 (October 1988), available at <https://semspub.epa.gov/src/document/11/128301>, "Guidance for Data Useability in Risk Assessment (Part A), Final," OSWER Directive #9285.7-09A, PB 92-963356 (April 1992), available at <http://semspub.epa.gov/src/document/11/156756>, and guidance referenced therein, and guidance referenced in the SOW. The Remedial Investigation (RI) shall consist of collecting data to characterize site conditions, determining the nature and extent of the contamination at or from the Site, assessing risk to human health and

the environment, and conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered. The Feasibility Study (FS) shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action to prevent, mitigate, or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site. The alternatives evaluated must include, but shall not be limited to, 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. In evaluating the alternatives, Respondent shall address the factors required to be considered by Section 121 of CERCLA, 42 U.S.C. § 9621, and 40 C.F.R. § 300.430(e).

41. All written documents prepared by Respondent pursuant to this Settlement shall be submitted by Respondent in accordance with Section IX (Submission and Approval of Deliverables). Except for progress reports and the Health and Safety Plan, all such submittals will be reviewed and approved by EPA in accordance with Section IX (Submission and Approval of Deliverables). Respondent shall implement all EPA approved, conditionally approved, or modified deliverables.
42. **Modification of the RI/FS Work Plan**
  - a. If at any time during the RI/FS process, Respondent identifies a need for additional data, Respondent shall submit a memorandum documenting the need for additional data to the RPM/OSC within 10 days after such identification. EPA at its discretion will determine whether the additional data will be collected by Respondent and whether that data will be incorporated into deliverables.
  - b. In the event of unanticipated or changed circumstances at the Site, Respondent shall notify the RPM/OSC by telephone or email within 24 hours of discovery of the unanticipated or changed circumstances. If EPA determines that the unanticipated or changed circumstances warrant changes in the RI/FS Work Plan, EPA shall modify the RI/FS Work Plan in writing accordingly or direct Respondent to modify and submit the modified RI/FS Work Plan to EPA for approval, and any schedule or deadline will be amended accordingly. Respondent shall perform the RI/FS Work Plan as modified.
  - c. EPA may determine that, in addition to tasks defined in the initially approved RI/FS Work Plan, other additional work may be necessary to accomplish the objectives of the RI/FS. Respondent shall perform these response actions in addition to those required by the initially approved RI/FS Work Plan, including any approved modifications, if EPA determines that such actions are necessary for a thorough RI/FS.
  - d. Respondent shall confirm its willingness to perform the additional work in writing to EPA within 10 days after receipt of the EPA request. If Respondent objects to any modification determined by EPA to be necessary pursuant to this Paragraph, Respondent may seek dispute resolution pursuant to Section XVII (Dispute

Resolution). The SOW and/or RI/FS Work Plan shall be modified in accordance with the final resolution of the dispute.

- e. Respondent shall complete the additional work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the RI/FS Work Plan or written RI/FS Work Plan supplement. EPA reserves the right to conduct the work and seek reimbursement from Respondent for the costs incurred in performing the work, and/or to seek any other appropriate relief.
- f. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions at the Site.

**43. Off-Site Shipments**

- a. Respondent may ship hazardous substances, pollutants, and contaminants from the Site to an off-Site facility only if Respondent complies with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent will be deemed to be in compliance with Section 121(d)(3) of CERCLA, 42 U.S.C. § 121(d)(3), and 40 C.F.R. § 300.440 regarding a shipment if Respondent obtains a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b).
- b. Respondent may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, they provide written notice to the appropriate state environmental official in the receiving facility's state and to the RPM/OSC. This notice requirement shall not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The written notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondent shall also notify the state environmental official referenced above and the RPM/OSC of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondent shall provide the written notice after the award of the contract for the RI/FS and before the Waste Material is shipped.
- c. Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if Respondent complies with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), 40 C.F.R. § 300.440, EPA's "Guide to Management of Investigation Derived Waste," OSWER 9345.3-03FS (Jan. 1992), and any IDW-specific requirements contained in the SOW. 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 40 C.F.R. § 300.440.



44. **Meetings.** Respondent shall make presentations at, and participate in, meetings at the request of EPA during the preparation of the RI/FS. In addition to discussion of the technical aspects of the RI/FS, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion.
45. **Progress Reports.** In addition to the deliverables set forth in this Settlement, Respondent shall submit written monthly progress reports to EPA by the 10<sup>th</sup> day of the following month. At a minimum, with respect to the preceding month, these progress reports shall:
- a. describe the actions that have been taken to comply with this Settlement;
  - b. include all results of sampling and tests and all other data received by Respondent;
  - c. describe Work planned for the next two months with schedules relating such Work to the overall project schedule for RI/FS completion; and
  - d. describe all problems encountered in complying with the requirements of this Settlement and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

## **IX. SUBMISSION AND APPROVAL OF DELIVERABLES**

### **46. Submission of Deliverables**

#### **a. General Requirements for Deliverables**

- (1) Except as otherwise provided in this Settlement, Respondent shall direct all submissions required by this Settlement to the RPM/OSC at Jeffree Fetters; EPA, Region 10, Superfund and Emergency Management Division, 1200 Sixth Avenue, Suite 155, Mail Code 12-D12-1, Seattle, Washington, 98101; (206) 553-1583; [fetters.jeffree@epa.gov](mailto:fetters.jeffree@epa.gov). Respondent shall submit all deliverables required by this Settlement, the attached SOW, or any approved work plan in accordance with the schedule set forth therein.
- (2) Respondent shall submit all deliverables in electronic form, or as specified in the SOW. Technical specifications for sampling and monitoring data and spatial data are addressed in Paragraph 46.b. All other deliverables shall be submitted in the electronic form specified by the RPM/OSC. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5 x 11 inches, Respondent shall also provide paper copies of such exhibits.

b. **Technical Specifications for Deliverables**

- (1) Sampling and monitoring data should be submitted in standard regional Electronic Data Deliverable (EDD) format. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.
- (2) Spatial data, including spatially referenced data and geospatial data, should be submitted: (i) in the ESRI File Geodatabase format; and (ii) as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should 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 (EME), complies with these FGDC and EPA metadata requirements and is available at <https://edg.epa.gov/EME/>.
- (3) Each file must 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.
- (4) Spatial data submitted by Respondent does not, and is not intended to, define the boundaries of the Site.

47. **Approval of Deliverables**

a. **Initial Submissions**

- (1) After review of any deliverable that is required to be submitted for EPA approval under this Settlement or the attached 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; or (iv) any combination of the foregoing.
- (2) 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 Paragraph 47.a(1) (Initial Submissions), or if required by a notice of approval upon specified

conditions under Paragraph 47.a(1), Respondent shall, within 20 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the deliverable for approval. After review of the resubmitted deliverable, EPA may: (a) approve, in whole or in part, the resubmission; (b) approve the resubmission upon specified conditions; (c) modify the resubmission; (d) disapprove, in whole or in part, the resubmission, requiring Respondent to correct the deficiencies; or (e) any combination of the foregoing.

- c. **Implementation.** Upon approval, approval upon conditions, or modification by EPA under Paragraph 47.a (Initial Submissions) or Paragraph 47.b (Resubmissions), of any deliverable, or any portion thereof: (i) such deliverable, or portion thereof, will be incorporated into and enforceable under the Settlement; and (ii) Respondent shall take any action required by such deliverable, or portion thereof. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for penalties under Section XIX (Stipulated Penalties) for violations of this Settlement.
48. Notwithstanding the receipt of a notice of disapproval, Respondent shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA.
49. If EPA takes over some of the tasks, but not the preparation of the Remedial Investigation Report (“RI Report”) or the FS Report, Respondent shall incorporate and integrate information supplied by EPA into those reports.
50. Respondent 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: RI/FS Work Plan; Sampling and Analysis Plan; draft RI Report; Treatability Testing Work Plan; Treatability Testing Sampling and Analysis Plan; Treatability Testing Health and Safety Plan; and draft FS Report. While awaiting EPA approval, approval on condition, or modification of these deliverables, Respondent 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. EPA will allow a reasonable schedule adjustment for tasks and activities that cannot proceed.
51. For all remaining deliverables not listed in Paragraph 50, Respondent shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval of the submitted deliverable. EPA reserves the right to stop Respondent from proceeding further, either temporarily or permanently, on any task, activity, or deliverable at any point during the Work.
52. **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 Paragraph 47.a (Initial Submissions) or 47.b (Resubmissions) due to such material defect, Respondent will be notified by EPA of such material defect and provided 20 days to cure such material defect. If after notice and opportunity to cure, Respondent has not resolved such material defect to the satisfaction

of EPA, Respondent shall be deemed in violation of this Settlement for failure to submit such plan, report, or other deliverable timely and adequately. Respondent may be subject to penalties for such violation as provided in Section XIX (Stipulated Penalties).

53. Neither failure of EPA to expressly approve or disapprove of Respondent's submissions within a specified time, nor the absence of comments, shall be construed as approval by EPA.

#### **X. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS**

54. Respondent shall use quality assurance, quality control, and other technical activities and chain of custody procedures for all samples consistent with "EPA Requirements for Quality Assurance Project Plans (QA/R5)," EPA/240/B-01/003 (March 2001, reissued May 2006), "Guidance for Quality Assurance Project Plans (QA/G-5)," EPA/240/R-02/009 (December 2002), and "Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A-900C (March 2005).

#### **55. Laboratories**

- a. Respondent shall ensure that EPA personnel and its authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondent pursuant to this Settlement. In addition, Respondent shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the Quality Assurance Project Plan (QAPP) for quality assurance, quality control, and technical activities that will satisfy the stated performance criteria as specified in the QAPP and that sampling and field activities are conducted in accordance with the Agency's "EPA QA Field Activities Procedure" CIO 2105-P-02.1 (9/23/2014), available at <https://www.epa.gov/irmpoli8/epa-qa-field-activities-procedures>. Respondent shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Settlement meet the competency requirements set forth in EPA's "Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions," available at <https://www.epa.gov/measurements/documents-about-measurement-competency-under-acquisition-agreements>, and that the laboratories perform all analyses using EPA-accepted methods. Accepted EPA methods consist of, but are not limited to, methods that are documented in the EPA's Contract Laboratory Program (<https://www.epa.gov/superfund/programs/clp/>), SW 846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (<https://www.epa.gov/hw-sw846>), "Standard Methods for the Examination of Water and Wastewater" (<http://www.standardmethods.org/>), and 40 C.F.R. Part 136, "Air Toxics - Monitoring Methods" (<https://www.epa.gov/amtic/air-toxics-ambient-monitoring#methods>).
- b. Upon approval by EPA, Respondent may use other appropriate analytical methods, as long as (i) quality assurance/quality control (QA/QC) criteria are contained in the methods and the methods are included in the QAPP, (ii) the

analytical methods are at least as stringent as the methods listed above, and (iii) the methods have been approved for use by a nationally recognized organization responsible for verification and publication of analytical methods, e.g., EPA, ASTM, NIOSH, OSHA, etc.

- c. Respondent shall ensure that all laboratories it uses for analysis of samples taken pursuant to this Settlement have a documented Quality System that complies with ASQ/ANSI E4:2014 “Quality Management Systems for Environmental Information and Technology Programs – Requirements With Guidance for Use” (American Society for Quality, February 2014), and “EPA Requirements for Quality Management Plans (QA/R-2)” EPA/240/B-01/002 (March 2001, reissued May 2006), or equivalent documentation as determined by EPA. EPA may consider Environmental Response Laboratory Network (ERLN) laboratories, laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP), or laboratories that meet International Standardization Organization (ISO 17025) standards or other nationally recognized programs as meeting the Quality System requirements.
- d. Respondent shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Settlement are conducted in accordance with the procedures set forth in the approved QAPP.

## 56. **Sampling**

- a. Upon request, Respondent shall provide split or duplicate samples to EPA or its authorized representatives. Respondent shall notify EPA not less than 60 days in advance of any sample collection activity unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall provide to Respondent split or duplicate samples of any samples it takes as part of EPA’s oversight of Respondent’s implementation of the Work, and any such samples shall be analyzed in accordance with the approved QAPP.
- b. Respondent shall submit to EPA, in the next monthly progress report as described in Paragraph 45 (Progress Reports), the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondent with respect to the Site and/or the implementation of this Settlement.
- c. Respondent waives any objections to any data gathered, generated, or evaluated by EPA or Respondent in the performance or oversight of the Work that has been verified according to the quality assurance/quality control (QA/QC) procedures required by the Settlement or any EPA-approved RI/FS Work Plans or Sampling and Analysis Plans. If Respondent objects to any other data relating to the RI/FS, Respondent shall submit to EPA a report that specifically identifies and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within 15 days after the monthly progress report containing the data.

## XI. PROPERTY REQUIREMENTS

57. **Agreements Regarding Access and Non-Interference.** Respondent shall, with respect to any Non-Settling Owner's Affected Property, use best efforts to secure from such Non-Settling Owner an agreement, enforceable by Respondent and the United States, providing that such Non-Settling Owner shall: (i) provide EPA and Respondent, and their representatives, contractors, and subcontractors with access at all reasonable times to such Affected Property to conduct any activity performed pursuant to this Settlement, including those listed in Paragraph 57.a (Access Requirements); and (ii) refrain from using such Affected Property in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or adversely affect the implementation or integrity of the Work. Respondent shall provide a copy of such access agreement(s) to EPA.
- a. **Access Requirements.** The following is a list of activities for which access is required regarding the Affected Property:
- (1) Monitoring the Work;
  - (2) Verifying any data or information submitted to EPA;
  - (3) Conducting investigations regarding contamination at or near the Site;
  - (4) Obtaining samples;
  - (5) Assessing the need for, planning, implementing, or monitoring response actions;
  - (6) Assessing implementation of quality assurance and quality control practices as defined in the approved QAPP;
  - (7) Implementing the Work pursuant to the conditions set forth in Paragraph 100 (Work Takeover);
  - (8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondent or its agents, consistent with Section XII (Access to Information);
  - (9) Assessing Respondent's compliance with the Settlement;
  - (10) 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; and
  - (11) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions regarding the Affected Property.

58. **Best Efforts.** As used in this Section, “best efforts” means the efforts that a reasonable person in the position of Respondent 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 Respondent is unable to accomplish what is required through “best efforts” in a timely manner, Respondent shall notify EPA and include a description of the steps taken to comply with the requirements. If EPA deems it appropriate, EPA may assist Respondent, or take independent action, in obtaining such access and/or use restrictions. All costs incurred by the United States in providing such assistance or taking such action, including the cost of attorney time and the amount of monetary consideration or just compensation paid, constitute Future Response Costs to be reimbursed under Section XVI (Payment of Response Costs).
59. If EPA determines in a decision document prepared in accordance with the NCP that Institutional Controls in the form of state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices are needed, Respondent shall cooperate with EPA’s efforts to secure and ensure compliance with such Institutional Controls.
60. In the event of any Transfer of the Affected Property, unless EPA otherwise consents in writing, Respondent shall continue to comply with its obligations under the Settlement, including their obligation to secure access and ensure compliance with any land, water, or other resource use restrictions regarding the Affected Property.
61. Notwithstanding any provision of this Settlement, EPA retains all 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.

## XII. ACCESS TO INFORMATION

62. Respondent shall provide to EPA, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as “Records”) within Respondent’s possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Settlement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondent 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. EPA has developed an administrative record file for the Site which, with the exception of privileged or confidential information, is available for review by Respondent. After the execution of this Agreement, Respondent may submit to EPA a list of all data in its possession relating to the Site. EPA agrees to review the data list from Respondent and use its best efforts to identify any missing data that EPA knows to be available.

63. **Privileged and Protected Claims**

- a. Respondent 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 Respondent complies with Paragraph 63.b, and except as provided in Paragraph 63.c.
- b. If Respondent asserts a claim of privilege or protection, Respondent 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, Respondent shall provide the Record to EPA in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that it claims 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 Respondent's favor.
- c. Respondent may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidence conditions at or around the Site; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Settlement.

64. **Business Confidential Claims.** Respondent may assert that all or part of a Record provided to EPA under this Section or Section XIII (Record Retention) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this Settlement for which Respondent asserts business confidentiality claims. Records claimed as confidential business information will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, or if EPA has notified Respondent that the Records are not confidential under the standards of Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent.

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

### **XIII. RECORD RETENTION**

66. Until 10 years after EPA provides Respondent with notice, pursuant to Section XXIX (Notice of Completion of Work), that all Work has been fully performed in accordance with this Settlement, each Respondent shall preserve and retain all non-identical copies of



Records (including Records in electronic form) now in its possession or control, or that come into its possession or control, that relate in any manner to its liability under CERCLA with regard to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractors and agents) must retain, in addition, copies of all data generated during the performance of the Work and not contained in the aforementioned Records required to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

67. At the conclusion of the document retention period, Respondent shall notify EPA at least 90 days prior to the destruction of any such Records, and, upon request by EPA, and except as provided in Paragraph 63 (Privileged and Protected Claims), Respondent shall deliver any such Records to EPA.
68. Respondent certifies individually that, 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 notification of potential liability by EPA and that it has fully complied with any and all EPA requests for information regarding the Site pursuant to 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.

#### XIV. COMPLIANCE WITH OTHER LAWS

69. Nothing in this Settlement limits Respondent's obligations to comply with the requirements of all applicable state and federal laws and regulations when performing the RI/FS. No local, state, or federal permit shall be 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), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. 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 and to comply with all such permits or approvals. Respondents may seek relief under the provisions of Section XVIII (Force Majeure) for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval 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. This Settlement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

#### XV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

70. **Emergency Response.** If any event occurs during performance of the Work that causes or threatens to cause a release of Waste Material on, at, or from the Site that either

constitutes an emergency or that may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release. Respondent shall take these actions in accordance with all applicable provisions of this Settlement, including, but not limited to, the Health and Safety Plan. Respondent shall also immediately notify the RPM/OSC or, in the event of his/her unavailability, the Regional Duty Officer at (206) 553-1263 of the incident or Site conditions. If Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondent shall reimburse EPA for all costs of such response action not inconsistent with the NCP pursuant to Section XVI (Payment of Response Costs).

71. **Release Reporting.** Upon the occurrence of any event during performance of the Work that Respondent is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004, Respondent shall immediately orally notify the RPM/OSC or, in the event of his/her unavailability, the Regional Duty Officer at (206) 553-1263, and the National Response Center at (800) 424-8802. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103 of CERCLA, 42 U.S.C. § 9603, and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.
72. For any event covered under this Section, Respondent shall submit a written report to EPA within seven days after the onset of such event, setting forth the action or event that occurred and the measures taken, and to be taken, to mitigate any release or threat of release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release or threat of release.

## **XVI. PAYMENT OF RESPONSE COSTS**

73. **Payment for Past Response Costs**
  - a. Within 30 days after receipt of a bill for Past Response Costs, except as provided in Paragraph 77 (Contesting Past Response Costs or Future Response Costs), Respondent shall pay to EPA the Past Response Costs not inconsistent with the NCP specified in the bill. Along with the bill, EPA will include a Superfund Cost Recovery Package Imaging and On-Line Systems (SCORPIOS) report, which includes direct and indirect costs incurred by EPA, its contractors, subcontractors, and the Department of Justice. Respondent shall make the payment at <https://www.epa.gov> in accordance with the following payment instructions: enter “sfo 1.1” in the search field to access EPA’s Miscellaneous Payment Form – Cincinnati Finance Center. Complete the form including the Site Name, docket number, and Site/Spill ID Number 10 HX. Respondent shall send to EPA, in accordance with Paragraph 37, a notice of this payment including these references.
  - b. **Deposit of Past Response Costs Payments.** The total amount to be paid by Respondent pursuant to Paragraph 73.a shall be deposited by EPA in the Alkali

Lake 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 EPA Hazardous Substance Superfund.

74. **Payments for Future Response Costs.** Respondent shall pay to EPA all Future Response Costs not inconsistent with the NCP.
- a. **Periodic Bill.** On a periodic basis, EPA will send Respondent a bill requiring payment that includes a SCORPIOS report, which includes direct and indirect costs incurred by EPA, its contractors, subcontractors, and the United States Department of Justice. Respondent shall make all payments within 30 days after Respondent's receipt of each bill and SCORPIOS report requiring payment, except as otherwise provided in Paragraph 76 (Contesting Past Response Costs or Future Response Costs), and in accordance with Paragraph 73.a (Payment for Past Response Costs).

**Deposit of Future Response Costs Payments.** The total amount to be paid by Respondent pursuant to Paragraph 74.a (Periodic Bill) shall be deposited by EPA in the Alkali Lake 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 EPA Hazardous Substance Superfund, provided, however, that EPA may deposit a Future Response Costs payment directly into the EPA Hazardous Substance Superfund if, at the time the payment is received, EPA estimates that the Alkali Lake Site Special Account balance is sufficient to address currently anticipated future response actions to be conducted or financed by EPA at or in connection with the Site. Any decision by EPA to deposit a Future Response Costs payment directly into the EPA Hazardous Substance Superfund for this reason shall not be subject to challenge by Respondent pursuant to the dispute resolution provisions of this Settlement or in any other forum.

75. **Interest.** If any payment for Past Response Costs or Future Response Costs is not made by the date required under this Settlement, Respondent shall pay Interest on the unpaid balance. The Interest on Past Response Costs shall begin to accrue on the date of the bill for such Past Response Costs. The Interest on Future Response Costs shall begin to accrue on the date of the bill for such Future Response Costs. The Interest shall continue to accrue through the date of Respondent's payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XIX (Stipulated Penalties).
76. **Contesting Past Response Costs or Future Response Costs.** Respondent may initiate the procedures of Section XVII (Dispute Resolution) regarding payment of any Past Response Costs billed under Paragraph 73 (Payment for Past Response Costs) or Future Response Costs billed under Paragraph 74 (Payments for Future Response Costs) if Respondent determines that EPA has made a mathematical error or included a cost item that is not within the definition of Past Response Costs or Future Response Costs, or if Respondent believes EPA incurred excess costs as a direct result of an EPA action that

was inconsistent with a specific provision or provisions of the NCP. To initiate such a dispute, Respondent shall submit a Notice of Dispute in writing to the RPM/OSC within 30 days after receipt of the bill. Any such Notice of Dispute shall specifically identify the contested Past Response Costs or Future Response Costs and the basis for objection. If Respondent submits a Notice of Dispute, Respondent shall within the 30-day period, also as a requirement for initiating the dispute, (a) pay all uncontested Past Response Costs or Future Response Costs to EPA in the manner described in Paragraph 73 or 74, and (b) establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation (FDIC) and remit to that escrow account funds equivalent to the amount of the contested Past Response Costs or Future Response Costs. Respondent shall send to the RPM/OSC a copy of the transmittal letter and check paying the uncontested Past Response Costs or Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. If EPA prevails in the dispute, within five days after the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 73 or 74. If Respondent prevails concerning any aspect of the contested costs, Respondent shall pay that portion of the costs (plus associated accrued interest) for which Respondent did not prevail to EPA in the manner described in Paragraph 73 or 74. Respondent shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVII (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondent's obligation to reimburse EPA for Past Response Costs or Future Response Costs.

## **XVII. DISPUTE RESOLUTION**

77. Unless otherwise expressly provided for in this Settlement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement. The Parties shall attempt to resolve any disagreements concerning this Settlement expeditiously and informally.
78. **Informal Dispute Resolution.** If Respondent objects to any EPA action taken pursuant to this Settlement, including billings for Past Response Costs or Future Response Costs, Respondent shall send EPA a written Notice of Dispute describing the objection(s) within 10 days after such action. EPA and Respondent shall have 20 days from EPA's receipt of Respondent's Notice of Dispute to resolve the dispute through informal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement.
79. **Formal Dispute Resolution.** To the extent that the Parties are unable to reach a complete agreement within the Negotiation Period, Respondent shall, within 20 days after the end of the Negotiation Period, submit a statement of position to the RPM/OSC. EPA may,

within 20 days thereafter, submit a statement of position. Thereafter, an EPA management official at the Superfund and Emergency Management Division Director level or higher will issue a written decision on the dispute to Respondent. EPA's decision shall be incorporated into and become an enforceable part of this Settlement. Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

80. Except as provided in Paragraph 76 (Contesting Past Response Costs or Future Response Costs) or as agreed by EPA, the invocation of formal dispute resolution procedures under this Section does not extend, postpone, or affect in any way any obligation of Respondent under this Settlement. Except as provided in Paragraph 90, stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Settlement. If Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIX (Stipulated Penalties).

#### **XVIII. FORCE MAJEURE**

81. "Force Majeure" for purposes of this Settlement, is defined as any event arising from causes beyond the control of Respondent, of any entity controlled by Respondent, or of Respondent's contractors that delays or prevents the performance of any obligation under this Settlement despite Respondent's best efforts to fulfill the obligation. The requirement that Respondent 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.
82. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement, Respondent shall notify the RPM/OSC orally or, in his or her absence, the alternate RPM/OSC, or, in the event both of EPA's designated representatives are unavailable, the Director of the Superfund and Emergency Management Division, EPA Region 10, within 3 days of when Respondent first knew that the event might cause a delay. Within 10 days thereafter, Respondent shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a force majeure; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health or welfare, or the environment. Respondent shall include with any notice all available documentation supporting their claim that the delay was attributable to a force majeure. Respondent shall be deemed to know of any circumstance of which Respondent, any entity controlled by Respondent, or Respondent's contractors knew or should have known. Failure to comply with the above requirements regarding an event shall preclude Respondent from asserting

any claim of force majeure regarding that event, provided, however, that if EPA, despite the late or incomplete notice, is able to assess to its satisfaction whether the event is a force majeure under Paragraph 81 and whether Respondent has exercised its best efforts under Paragraph 81, EPA may, in its unreviewable discretion, excuse in writing Respondent's failure to submit timely or complete notices under this Paragraph.

83. If EPA agrees that the delay or anticipated delay is attributable to a force majeure, the time for performance of the obligations under this Settlement that are affected by the force majeure will be extended by EPA for such time as is necessary to complete those obligations. 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. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure, EPA will notify Respondent in writing of its decision. If EPA agrees that the delay is attributable to a force majeure, EPA will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure.
84. If Respondent elects to invoke the dispute resolution procedures set forth in Section XVII (Dispute Resolution), Respondent shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of Paragraphs 81 and 82. If Respondent carries this burden, the delay at issue shall be deemed not to be a violation by Respondent of the affected obligation of this Settlement identified to EPA.
85. The failure by EPA to timely complete any obligation under the Settlement is not a violation of the Settlement, provided, however, that if such failure prevents Respondent from meeting one or more deadlines under the Settlement, Respondent may seek relief under this Section.

## **XIX. STIPULATED PENALTIES**

86. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 87.a and 88 for failure to comply with the obligations specified in Paragraphs 87.b and 88, unless excused under Section XVIII (Force Majeure). "Comply" as used in the previous sentence includes compliance by Respondent with all applicable requirements of this Settlement, within the deadlines established under this Settlement. With respect to an initially submitted or resubmitted plan, report or other deliverable that is disapproved or modified by EPA as described in Paragraph 53 because of a material defect, Respondent shall not be liable for stipulated penalties unless Respondent is provided 20 days to cure the deficiency prior to the imposition of stipulated penalties.

87. **Stipulated Penalty Amounts: Payments, Financial Assurance, Major Deliverables, and Other Milestones**

a. The following stipulated penalties shall accrue per violation per day for any noncompliance with any obligation identified in Paragraph 87.b:

<b>Penalty Per Violation Per Day</b>	<b>Period of Noncompliance</b>
\$ 750	1st through 14th day
\$ 1,500	15th through 30th day
\$ 2,500	31st day and beyond

b. **Obligations**

- (1) Payment of any amount due under Section XVI (Payment of Response Costs).
- (2) Establishment and maintenance of financial assurance in accordance with Section XXVII (Financial Assurance).
- (3) Establishment of an escrow account to hold any disputed Past Response Costs or Future Response Costs under Paragraph 76 (Contesting Past Response Costs or Future Response Costs).
- (4) Performance of Work in accordance with the RI/FS Work, modification or supplement to the RI/FS Work Plan, or the SOW.

88. **Stipulated Penalty Amounts: Other Deliverables.** The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate deliverables required by this Settlement, other than those specified in Paragraph 87.b:

<b>Penalty Per Violation Per Day</b>	<b>Period of Noncompliance</b>
\$ 500	1st through 14th day
\$ 1,000	15th through 30th day
\$ 1,750	31st day and beyond

89. If EPA assumes performance of a portion or all of the Work pursuant to Paragraph 100 (Work Takeover), Respondent shall be liable for a stipulated penalty in the amount of \$10,000. Stipulated penalties under this Paragraph are in addition to the remedies available to EPA under Paragraphs 100 (Work Takeover) and 123 (Access to Financial Assurance).

90. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. Penalties shall continue to accrue during any dispute resolution period and shall be paid within 15 days after the agreement or the receipt of EPA's decision. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Section IX (Submission and Approval of

Deliverables), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency, or during the 20 day period provided in Paragraph 86 to cure a material defect under Paragraph 52 with respect to a decision by the EPA Management Official at the Division Director level or higher, under Paragraph 79 (Formal Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA Management Official issues a final decision regarding such dispute. Nothing in this Settlement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement.

91. Following EPA's determination that Respondent has failed to comply with a requirement of this Settlement, EPA may give Respondent written notification of the failure and describe the noncompliance. EPA may send Respondent a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondent of a violation.
92. All penalties accruing under this Section shall be due and payable to EPA within 30 days after Respondent's receipt from EPA of a demand for payment of the penalties unless Respondent invokes the Dispute Resolution procedures under Section XVII (Dispute Resolution) within the 30-day period. Respondent shall make all payments at <https://www.pay.gov> using the link for "EPA Miscellaneous Payments Cincinnati Finance Center," including references to the Site Name, docket number, the Site/Spill ID Number, and the purpose of the payment. Respondent shall send to EPA, in accordance with Paragraph 37, a notice of this payment including these references.
93. If Respondent fails to pay stipulated penalties when due, Respondent shall pay Interest on the unpaid stipulated penalties as follows: (a) if Respondent has timely invoked dispute resolution such that the obligation to pay stipulated penalties has been stayed pending the outcome of dispute resolution, Interest shall accrue from the date stipulated penalties are due pursuant to Paragraph 91 until the date of payment; and (b) if Respondent fails to timely invoke dispute resolution, Interest shall accrue from the date of demand under Paragraph 92 until the date of payment. If Respondent fails to pay stipulated penalties and Interest when due, the United States may institute proceedings to collect the penalties and Interest.
94. The payment of penalties and Interest, if any, shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement.
95. Nothing in this Settlement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA, 42 U.S.C. § 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), provided, however, that EPA shall not seek civil penalties pursuant Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Settlement,



except in the case of willful violation of this Settlement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 100 (Work Takeover).

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

## **XX. COVENANTS BY EPA**

97. Except as provided in Section XXI (Reservations of Rights by EPA), EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work, Past Response Costs, and Future Response Costs. These covenants shall take effect upon the Effective Date. These covenants are conditioned upon the complete and satisfactory performance by Respondent of its obligations under this Settlement. These covenants extend only to Respondent and do not extend to any other person.

## **XXI. RESERVATIONS OF RIGHTS BY EPA**

98. Except as specifically provided in this Settlement, nothing in this Settlement shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Settlement shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.
99. The covenant not to sue set forth in Section XX (Covenants by EPA) above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:
- a. liability for failure by Respondent to meet a requirement of this Settlement;
  - b. liability for costs not included within the definitions of Past Response Costs or Future Response Costs;
  - c. liability for performance of response action other than the Work;
  - d. criminal liability;
  - e. liability for violations of federal or state law that occur during or after implementation of the Work;
  - f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

- g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- h. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site not paid as Past Response Costs or Future Response Costs under this Settlement.

**100. Work Takeover**

- a. In the event EPA determines that Respondent: (1) has ceased implementation of any portion of the Work; (2) is seriously or repeatedly deficient or late in its performance of the Work; or (3) is implementing the Work in a manner that may cause an imminent and substantial endangerment to human health or the environment, EPA may issue a written notice (“Work Takeover Notice”) to Respondent. Any Work Takeover Notice issued by EPA (which writing may be electronic) will specify the grounds upon which such notice was issued and will provide Respondent a period of 10 days within which to remedy the circumstances giving rise to EPA’s issuance of such notice.
- b. If, after expiration of the 10-day notice period specified in Paragraph 100.a, Respondent has not remedied to EPA’s satisfaction the circumstances giving rise to EPA’s issuance of the relevant Work Takeover Notice, EPA may at any time thereafter assume the performance of all or any portion(s) of the Work as EPA deems necessary (“Work Takeover”). EPA will notify Respondent in writing (which writing may be electronic) if EPA determines that implementation of a Work Takeover is warranted under this Paragraph 100.b. Funding of Work Takeover costs is addressed under Paragraph 123 (Access to Financial Assurance).]
- c. Respondent may invoke the procedures set forth in Section XVII (Dispute Resolution) to dispute EPA’s implementation of a Work Takeover under Paragraph 100.b. However, notwithstanding Respondent’s invocation of such dispute resolution procedures, and during the pendency of any such dispute, EPA may in its sole discretion commence and continue a Work Takeover under Paragraph 100.b until the earlier of (1) the date that Respondent remedies, to EPA’s satisfaction, the circumstances giving rise to EPA’s issuance of the relevant Work Takeover Notice, or (2) the date that a written decision terminating such Work Takeover is rendered in accordance with Paragraph 79 (Formal Dispute Resolution).
- d. Notwithstanding any other provision of this Settlement, EPA retains all authority and reserves all rights to take all response actions authorized by law.

**XXII. COVENANTS BY RESPONDENT**

101. Respondent covenants not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Past Response Costs, Future Response Costs, or this Settlement, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the EPA Hazardous Substance Superfund through Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
  - b. any claims under Sections 107 and 113 of CERCLA, Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), or state law regarding the Work, Past Response Costs, Future Response Costs, and this Settlement; or
  - c. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, or at common law.
102. Except as provided in Paragraph 112 (Waiver of Claims by Respondent) these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Section XXI (Reservations of Rights by EPA), other than in Paragraph 9999.a (liability for failure to meet a requirement of the Settlement), 99.b (criminal liability), or 99.e (liability for violations of federal or state law), but only to the extent that Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.
103. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).
104. Respondent reserves, and this Settlement is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on EPA's selection of response actions, or the oversight or approval of Respondent's deliverables or activities.

### **XXIII. OTHER CLAIMS**

105. By issuance of this Settlement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement.

106. Except as expressly provided in Paragraph 112 (Waiver of Claims by Respondent) and Section XX (Covenants by EPA), nothing in this Settlement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages, and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.
107. No action or decision by EPA pursuant to this Settlement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

#### **XXIV. EFFECT OF SETTLEMENT/CONTRIBUTION**

108. Except as provided in Paragraphs 112 (Waiver of Claims by Respondent), nothing in this Settlement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Settlement. Except as provided in Section XXII (Covenants by Respondent), each of the Parties expressly reserves any and all rights (including, but not limited to, pursuant to Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons 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).
109. The Parties agree that this Settlement constitutes an administrative settlement pursuant to which Respondent has, as of the Effective Date, resolved its liability to the United States within the meaning of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and 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, Past Response Costs, and Future Response Costs.
110. The Parties further agree that this Settlement constitutes an administrative settlement pursuant to which Respondent has, as of the Effective Date, resolved its liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).
111. Respondent shall, with respect to any suit or claim brought by it for matters related to this Settlement, notify EPA in writing no later than 60 days prior to the initiation of such suit or claim. Respondent also shall, with respect to any suit or claim brought against it for matters related to this Settlement, notify EPA in writing within 10 days after service of the complaint or claim upon it. In addition, 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, for matters related to this Settlement.

112. In any subsequent administrative or judicial proceeding initiated by EPA, or by the United States on behalf of EPA, for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenant by EPA set forth in Section XX (Covenants By EPA).
113. Effective upon signature of this Settlement by Respondent, Respondent agrees that the time period commencing on the date of its signature and ending on the date EPA receives from Respondent the payment(s) required by Paragraph 73 (Payment for Past Response Costs) and, if any, Section XIX (Stipulated Penalties) shall not be included in computing the running of any statute of limitations potentially applicable to any action brought by the United States related to the “matters addressed” as defined in Paragraph 109 and that, in any action brought by the United States related to the “matters addressed,” Respondent will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time during such period. If EPA gives notice to Respondent that EPA will not make this Settlement effective, the statute of limitations shall begin to run again commencing 90 days after the date such notice is sent by EPA.

## **XXV. INDEMNIFICATION**

114. The United States does not assume any liability by entering into this Settlement or by virtue of any designation of Respondent as EPA’s authorized representative under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), and 40 C.F.R. § 300.400(d)(3). Respondent shall indemnify, save, and hold harmless the United States, its officials, agents, employees, contractors, subcontractors, and representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, and any persons acting on Respondent’s behalf or under their control, in carrying out activities pursuant to this Settlement. Further, Respondent agrees to pay the United States all costs the United States incurs, including but not limited to attorneys’ fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on its behalf or under their control, in carrying out activities pursuant to this Settlement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement. Neither Respondent nor any such contractor shall be considered an agent of the United States.
115. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

116. Respondent covenants not to sue and agree not to assert any claims or causes of action against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

## **XXVI. INSURANCE**

117. No later than 30 days before commencing any on-site Work, Respondent shall secure, and shall maintain until the first anniversary after issuance of Notice of Completion of Work pursuant to Section XXIX (Notice of Completion of Work), commercial general liability insurance with limits of liability of \$1 million per occurrence, automobile liability insurance with limits of liability of \$1 million per accident, and umbrella liability insurance with limits of liability of \$5 million in excess of the required commercial general liability and automobile liability limits, naming EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Settlement. In addition, for the duration of the Settlement, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall resubmit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement, Respondent 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 Work on behalf of Respondent in furtherance of this Settlement. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in a lesser amount, then, with respect to the contractor or subcontractor, Respondent need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor. Respondent shall ensure that all submittals to EPA under this Paragraph identify the Alkali Lake Site, Lake County, Oregon, and the EPA docket number for this Settlement.

## **XXVII. FINANCIAL ASSURANCE**

118. To assure completion of the Work, Respondent shall secure financial assurance, initially in the amount of \$ 5,000,000 ("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 or under the "Financial Assurance - Settlements" category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>, and satisfactory to EPA. Respondent may use multiple mechanisms if it is limited to

surety bonds guaranteeing payment, letters of credit, trust funds, and/or insurance policies.

- a. A surety bond guaranteeing payment and/or performance of the Work 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 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 Respondent that it meets the financial test criteria of Paragraph 120, accompanied by a standby funding commitment, which obligates 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 Respondent or has a “substantial business relationship” (as defined in 40 C.F.R. § 264.141(h)) with a Respondent; and (2) can demonstrate to EPA’s satisfaction that it meets the financial test criteria of Paragraph 120.
119. Respondents shall, within 30 days of the Effective Date, obtain EPA’s approval of the form of Respondent’s financial assurance. Within 30 days of such approval, Respondent 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 RPM/OSC.
120. If Respondent seeks to provide financial assurance by means of a demonstration or guarantee under Paragraph 118.e or 118.f, Respondent must, within 30 days of the Effective Date:
- a. Demonstrate that:
    - (1) Respondent or its 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) Respondent or its 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 Respondent or its 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 or 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/>.

121. If Respondent provides financial assurance by means of a demonstration or guarantee under Paragraph 118.e or 118.f Respondent must also:

a. Annually resubmit the documents described in Paragraph 120.b within 90 days after the close of Respondent's or its guarantor's fiscal year;



- b. Notify EPA within 30 days after Respondent or its 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 Respondent or its guarantor in addition to those specified in Paragraph 120.b; EPA may make such a request at any time based on a belief that Respondent or its guarantor may no longer meet the financial test requirements of this Section.
122. Respondent shall diligently monitor the adequacy of the financial assurance. If 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, Respondent shall notify EPA of such information within 10 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 Respondent of such determination. Respondent 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 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. Respondent shall follow the procedures of Paragraph 124 (Modification of Amount, Form, or Terms of Financial Assurance) in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondent's inability to secure financial assurance in accordance with this Section does not excuse performance of any other obligation under this Settlement.
123. **Access to Financial Assurance**
- a. If EPA issues a notice of implementation of a Work Takeover under Paragraph 90100.b, then, in accordance with any applicable financial assurance mechanism, and/or related standby funding commitment], EPA is entitled to: (1) the performance of the Work; and/or (2) require that any funds guaranteed be paid in accordance with Paragraph 123.d.
  - b. If EPA is notified by the issuer of a financial assurance mechanism that it intends to cancel the mechanism, and 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 Paragraph 123.d.
  - c. If, upon issuance of a notice of implementation of a Work Takeover under Paragraph 100.b, either: (1) EPA is unable for any reason to promptly secure the resources guaranteed under any applicable financial assurance mechanism [and/or 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 Paragraphs 118.e or 118.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. Respondent shall, within 30 days of such demand, pay the amount demanded as directed by EPA.

- d. Any amounts required to be paid under this Paragraph 123 shall be, as directed by EPA: (i) paid to EPA in order to facilitate the completion of the Work by EPA 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 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 EPA Hazardous Substance Superfund or into the Alkali Lake Site Special Account within the EPA Hazardous Substance Superfund 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 EPA Hazardous Substance Superfund.
- e. All EPA Work Takeover costs not paid under this Paragraph 123 must be reimbursed as Future Response Costs under Section XVI (Payment of Response Costs).

124. **Modification of Amount, Form, or Terms of Financial Assurance.** Respondent may submit, on any anniversary of the Effective Date or at any other time agreed to by the Parties, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to EPA in accordance with Paragraph 119 and must 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 Respondent of EPA's decision to approve or disapprove a requested reduction or change pursuant to this Paragraph. Respondent may reduce the amount of the financial assurance mechanism only in accordance with: (a) EPA's approval; or (b) if there is a dispute, the agreement or written decision resolving such dispute under Section XVII (Dispute Resolution). Respondent may change the form or terms of the financial assurance mechanism only in accordance with EPA's approval. 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 Respondent pursuant to the dispute resolution provisions of this Settlement or in any other forum. Within 30 days after receipt of EPA's approval of, or the agreement or decision resolving a dispute relating to, the requested modifications pursuant to this Paragraph, Respondent shall submit to EPA documentation of the reduced, revised, or alternative financial assurance mechanism in accordance with Paragraph 119.

125. **Release, Cancellation, or Discontinuation of Financial Assurance.** Respondent may release, cancel, or discontinue any financial assurance provided under this Section only: (a) if EPA issues a Notice of Completion of Work under Section XXIX (Notice of Completion of 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 XVII (Dispute Resolution).

### **XXVIII. MODIFICATION**

126. The RPM/OSC may modify any plan or schedule or the SOW in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly but shall have as its effective date the date of the RPM/OSC oral direction. Any other requirements of this Settlement may be modified in writing by mutual agreement of the parties.
127. If Respondent seeks permission to deviate from any approved work plan or schedule or the SOW, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the RPM/OSC pursuant to Paragraph 126.
128. No informal advice, guidance, suggestion, or comment by the RPM/OSC or other EPA representatives regarding any deliverable submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Settlement, or to comply with all requirements of this Settlement, unless it is formally modified.

### **XXIX. NOTICE OF COMPLETION OF WORK**

129. When EPA determines that all 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 Record Retention, EPA will provide written notice to Respondent. If EPA determines that any Work has not been completed in accordance with this Settlement, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the RI/FS Work Plan, if appropriate, in order to correct such deficiencies. Respondent shall implement the modified and approved RI/FS Work Plan and shall submit a modified draft RI Report and/or FS Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified RI/FS Work Plan shall be a violation of this Settlement.

### **XXX. INTEGRATION/APPENDICES**

130. This Settlement and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement. The following appendices are attached to and incorporated into this Settlement:
  - a. "Appendix A" is the description and/or map of the Site.
  - b. "Appendix B" is the SOW.

**XXXI. ADMINISTRATIVE RECORD**

131. EPA will determine the contents of the administrative record file for selection of the remedial action. Respondent shall submit to EPA documents developed during the course of the RI/FS upon which selection of the remedial action may be based. Upon request of EPA, Respondent shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports, and other reports. Upon request of EPA, Respondent shall additionally submit any previous studies conducted under state, local, or other federal authorities that may relate to selection of the remedial action, and all communications between Respondent and state, local, or other federal authorities concerning selection of the remedial action.

**XXXII. EFFECTIVE DATE**

132. This Settlement shall be effective upon signature by the Remedial Program Manager, Superfund and Emergency Management Divisions, EPA, Region 10.

IT IS SO AGREED AND ORDERED:

**U.S. ENVIRONMENTAL PROTECTION AGENCY:**


**KIRA LYNCH**

Digitally signed by KIRA LYNCH  
Date: 2023.02.17 13:58:38  
-08'00'

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Dated

\_\_\_\_\_  
Kira Lynch  
Remedial Program Manager  
Superfund and Emergency Management Division  
Region 10

Respondent Signature Page for Settlement Regarding Alkali Lake Superfund Site

FOR  :  
Bayer CropScience, Inc.

16-Feb-2023

Dated

Drew M. Reavis

[Name]

[Title] Head of North America Environmental and Sustainability

[Company] Bayer

[Address] 800 N. Lindbergh Blvd.  
St. Louis, MO 63167

**REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
STATEMENT OF WORK  
ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT  
APPENDIX B  
ALKALI LAKE SUPERFUND SITE  
Lake County, State of Oregon  
EPA Region 10**

**February 2023**

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## 1. INTRODUCTION

- 1.1 Purpose of the SOW.** This Statement of Work (SOW) sets forth the procedures, requirements, and recommendations for developing workplans and implementing the Work needed to develop, plan, and perform the remedial investigation (RI) and the feasibility study (FS) for the Alkali Lake Site (Site). Further, this SOW is a part of and incorporated into the Administrative Settlement Agreement and Order on Consent, CERCLA Docket No. 10-2023-0017 (“Settlement”)
- 1.2** The terms used in this SOW that are defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), in regulations promulgated under CERCLA, including the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), or in the Settlement have the meanings assigned to them in CERCLA, in such regulations, or in the Settlement, except 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.
- 1.3** At the completion of the RI/FS, EPA will be responsible for identifying a preferred remedy, soliciting, and reviewing public comments on the proposed plan, and the selection of a site remedy, and will document this selection in a record of decision (ROD). The remedial action alternative selected by EPA will meet the cleanup standards specified in and comply with the terms of CERCLA section 121. As specified in CERCLA section 104(a)(1), EPA or its representatives will provide oversight of Respondent’s activities throughout the RI/FS.
- 1.4** Modifications to the SOW will follow procedures described in Sections VIII and XXVIII in the Settlement. Respondent 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) and relevant updates and other guidance in performing its responsibilities under this SOW.
- 1.5** This SOW is not intended to modify current EPA guidance or regulations, including but not limited to the guidance documents referenced in Section 8. 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 Community Involvement.** EPA has the lead responsibility, but if requested by EPA, Respondent shall assist EPA with developing and implementing community involvement (CI) activities at sites, including compliance with NCP § 300.430(c)(2) (e.g., to the extent practicable prior to conducting field work, conducting of interviews, solicitation of stakeholder needs for information, solicitation of stakeholder interest in involvement in the Superfund remedial process, and preparation of Community Involvement Plan (CIP) specifying the community involvement activities expected to be undertaken during the remedial process, including notifying community of any availability of a Technical Assistance Grant (TAG), use of EPA’s Technical Assistance Services for Communities



(TASC) contract), and/or any opportunity to submit a Letter of Intent to apply for assistance via a Technical Assistance Plan (TAP). EPA is responsible for compliance with NCP § 300.815(a) (making administrative record available to the public) and NCP § 300.430(f)(3)(i)(C) (providing reasonable opportunity for submission of comments on the RI/FS and proposed plan).

- (a) As requested by EPA, Respondent shall participate in and/or conduct CI 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 the site, and (3) other activities EPA decides are necessary to protect and address the concerns of EJ and disadvantaged communities, *e.g.*, “giving presentations” or providing interpretation and/or translation services. Respondent’s support of EPA’s community involvement activities must include providing online access to initial submissions and updates of deliverables to (1) any Community Advisory Groups, (2) any TAG or TAP 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 Respondent’s responsibilities for community involvement activities. All community involvement activities conducted by Respondent at EPA’s request are subject to EPA’s oversight. Upon EPA’s request, Respondent shall establish a community information repository at or near the Site, as provided in the CIP, to house one copy of the administrative record.

**2.2 Information for the Community.** As requested by EPA, Respondent shall develop and provide to EPA information about the RI/FS, including: (1) any validated data from field sampling activities as provided in (a) below; (2) results from unvalidated sampling data as provided under Section 3; (3) schedules prepared under Section 7; (4) dates that Respondent 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 Remedial Project Manager/On-Scene Coordinator (RPM/OSC) may use this information for communication to the public via EPA’s website, social media, 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 community members with limited English proficiency.

- (a) As requested by EPA, Respondent shall describe all activities to be performed (i) to reduce impacts (*e.g.*, air emissions, dust, odor, traffic, noise, temporary or relocation, negative economic effects) 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, and (iv) to make adjustments during field sampling activities in order to further reduce negative impacts to affected

Community Areas. 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(March 2020), pp. 53-56 (noting that while these pages discuss impacts of remedial actions, Respondent shall consider the potential impacts for RI activities; see also pp. 33-38.) EPA's RPM/OSC and Community Involvement Coordinator will review and approve all proposed activities.

**2.3 Respondent's CI Coordinator.** As requested by EPA, Respondent shall designate and notify EPA of Respondent's CI Coordinator. Respondent may hire a contractor for this purpose. Respondent's notice must include the name, title, and qualifications of its CI Coordinator. Respondent's CI Coordinator is responsible for providing support regarding EPA's CI activities, including coordinating with EPA's CI Coordinator regarding responses to the public's inquiries and/or requests for information or data about the Site.

**2.4 Technical Assistance**

- (a) At EPA's request, Respondent shall arrange for a qualified community group to receive the services of a technical advisor(s) who can: (i) help group members understand Site cleanup issues (specifically, to interpret and comment on Site-related documents developed under this SOW); and (ii) share this information with others in the community. The technical advisor(s) will be independent from Respondent. Respondent's TAP assistance will be limited to \$50,000, except as provided in Section 2.4(d)(3), and will end when EPA issues the ROD based on the RI/FS conducted pursuant to this SOW. Respondent will pay for and shall implement this requirement under a TAP.
- (b) At EPA's request, Respondent shall cooperate with EPA in soliciting interest from community groups regarding a TAP at the Site. If more than one community group expresses an interest in a TAP, Respondent shall cooperate with EPA in encouraging the groups to submit a single, joint application for a TAP.
- (c) At EPA's request, Respondent shall, within 30 calendar days of the request, submit a proposed TAP for EPA approval. The TAP must describe Respondent's plans for the qualified community group to receive independent technical assistance. The TAP must include the following elements:
  - (1) For Respondent to arrange for publication of a notice in local media that they have received a Letter of Intent (LOI) to submit an application for a TAP. The notice shall explain how other interested groups may also try to combine efforts with the LOI group or submit their own applications, by a reasonable specified deadline;
  - (2) For Respondent to review the application(s) received and determine the eligibility of the community group(s). The proposed TAP must include eligibility criteria as follows:

- (i) A community group is eligible if it is: (a) comprised of people who are affected by the release or threatened release at the Site, and (b) able to demonstrate its ability to adequately and responsibly manage TAP-related responsibilities by identifying a point of contact for the TAP and provided to EPA a process for communication with the TAP to address community group concerns.
  - (ii) A community group is ineligible if it is: (a) a potentially responsible party (PRP) at the Site, represents such a PRP, or receives money or services from a PRP (other than through the TAP); (b) affiliated with a national organization; (c) an academic institution; (d) a political subdivision; (e) a tribal government; or (f) a group established or presently sustained by any of the above ineligible entities; or (g) a group in which any of the above ineligible entities is represented.
- (3) For Respondent to notify EPA of its determination on eligibility of the applicant group(s) to ensure that the determination is consistent with the SOW before notifying the group(s);
- (4) If more than one community group submits a timely application, for Respondent to review each application and evaluate each application based on the following elements:
  - (i) The extent to which the group is representative of those persons affected by the Site; and
  - (ii) The effectiveness of the group's proposed system for managing TAP-related responsibilities, including its plans for working with its technical advisor and for sharing Site-related information with other members of the community.
- (5) For Respondent to document its evaluation of, and their selection of, a qualified community group, and to brief EPA regarding its evaluation process and choice. EPA may review Respondent's evaluation process to determine whether the process satisfactorily follows the criteria in Section 2.4(c)(4). TAP assistance may be awarded to only one qualified group at a time;
- (6) For Respondent to notify all applicant(s) about Respondent's decision;
- (7) For Respondent to designate a person (TAP Coordinator) to be its primary contact with the selected community group;
- (8) A description of Respondent's plans to implement the requirements of Section 2.4(d) (Agreement with Selected Community Group); and

- (9) For Respondent to submit quarterly progress reports regarding the implementation of the TAP.

**(d) Agreement with Selected Community Group**

- (1) Respondent shall negotiate an agreement with the selected community group that specifies the duties of Respondent and the community group. The agreement must specify the activities that may be reimbursed under the TAP and the activities that may not be reimbursed under the TAP. The list of allowable activities must be consistent with 40 C.F.R. § 35.4070 (e.g., obtaining the services of an advisor to help the group understand the nature of the environmental and public health hazards at the Site and the various stages of the response action, and communicating Site information to others in the community). The list of non-allowable activities must be consistent with 40 C.F.R. § 35.4075 (e.g., activities related to litigation or political lobbying).
- (2) The agreement must provide that Respondent's review of the Community Group's recommended choice for Technical Advisor will be limited, consistent with 40 C.F.R. §§ 35.4190 and 35.4195, to criteria such as whether the advisor has relevant knowledge, academic training, and relevant experience as well as the ability to translate technical information into terms the community can understand.
- (3) The agreement must provide that the Community Group is eligible for additional TAP assistance, if it can demonstrate that it has effectively managed its TAP responsibilities to date, and that at least three of the following eight factors are satisfied:
  - (i) EPA expects that more than eight years (beginning with the initiation of the RI/FS) will pass before construction completion will be achieved;
  - (ii) EPA requires treatability studies or evaluation of new and innovative technologies;
  - (iii) The public health assessment (or related activities) for the Site indicates the need for further health investigations and/or health-related activities;
  - (iv) After Respondent's selection of the Community Group for the TAP, EPA designates additional operable units at the Site;
  - (v) After Respondent's selection of the Community Group, a legislative or regulatory change results in significant new Site information;

- (vi) Significant public concern about the Site exists, as evidenced, e.g., by relatively large turnout at meetings, the need for multiple meetings, the need for numerous copies of documents to inform community members, etc.;
  - (vii) Any other factor that, in EPA's judgment, indicates that the Site is unusually complex; or
  - (viii) A RI/FS costing at least \$2 million is being or was performed at the Site pursuant to this Settlement.
- (4) Respondent is entitled to retain any unobligated TAP funds upon EPA's issuance of the ROD.
  - (5) Respondent shall submit a draft of the proposed agreement to EPA for its comments.

### **3. REMEDIAL INVESTIGATION**

Scoping is the initial planning process of the RI/FS. During the scoping process, the Site-specific objectives of the RI/FS will be proposed by Respondent and approved by EPA. In addition to developing the Site-specific objectives of the RI/FS, Respondent shall define a general project management approach for the Site, which shall be documented by Respondent in a RI Work Plan (RIWP) and other planning documents. Because the Work required to perform an RI/FS is not fully known at the outset and is phased in accordance with a Site's complexity and the amount of available information, it will be necessary to develop a new scope, update, or otherwise modify the RIWP for each phase of the RI/FS to satisfy the objectives of the study. When scoping the specific aspects of this project, Respondent shall meet with EPA either in person or virtually to discuss all project planning decisions and special concerns associated with the Site.

The following activities shall, at a minimum, be performed by Respondent as a function of the project scoping process.

**3.1 Previous Investigation Summary Report.** Respondent shall prepare a Previous Investigation Summary Report based on available requisite information for EPA review and EPA approval. The report shall include, but not be limited to:

- (a) Available data relating to the varieties and quantities of hazardous substances, pollutants, or contaminants at the Site;
- (b) A compilation and evaluation of the usability of existing site groundwater, surface water, soil, sediment, and biota data in terms of data quality, completeness and comparability with current and relevant analytical method detection limits, and current and relevant screening values;
- (c) A preliminary data gap analysis based on existing site groundwater, surface water, soil, sediment, and biota data;
- (d) An evaluation of historical aerial photographs;

- (e) Preparation of high-resolution images and maps showing all documented/reported disposal areas, storage areas, historic and recent chemical concentrations, groundwater elevation data, and other information along with Site features, patterns in Contaminant of Concern (COC) distribution along possible transport pathways, and habitat map(s) depicting proximity of COCs to possible ecological receptors; and
- (f) An evaluation of monitoring well/boring logs and other information on Site lithology to assist in three-dimensional visualization of the nature and extent of contamination.

Respondent 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. The report shall also describe releases of hazardous substances, pollutants, or contaminants into the environment.

- 3.2 Site Visit.** Respondent and EPA shall conduct a Site visit during the project scoping phase to assist in improving the conceptual understanding of sources and areas of contamination as well as potential exposure pathways and receptors at the Site. During the Site visit Respondent shall observe the Site's physiography, hydrology, geology, and demographics, as well as natural resources, ecological, and cultural resources. This information shall be utilized to better scope the project and to determine the extent of additional data necessary to characterize the Site, and better define potential applicable or relevant and appropriate requirements (ARARs).
- 3.3 High Resolution Site Topographic Survey.** Respondent shall conduct a high-resolution geo-referenced topographic survey (e.g., LiDAR) of the site as part of scoping activities to inform development of site investigation planning documents and allow preparation of accurate maps and other figures.
- 3.4 Conceptual Site Model Report.** Respondent shall prepare an initial conceptual site model (CSM) for EPA review and EPA approval. The CSM shall consider available site-specific information, including known and suspected sources of contamination, types of contamination and affected media/resources, known and potential routes of migration, and all known or potential human and environmental receptor groups. The initial CSM shall use the data evaluation (Section 3.1) to identify environmental media (groundwater, surface water, pore water, soil, sediment, air, air particulates, and biota) that may need additional sampling or other information collection to fully characterize the nature and extent of contamination. Respondent shall update the data gap analysis and CSM as needed following each field event and/or as requested by EPA to account for information obtained during the RI.
- 3.5 Remedial Investigation Work Plan.** Respondent shall prepare an initial RIWP and submit an updated RIWP or RIWP addendum prior to each field event to EPA for review and approval. The RIWP shall include a comprehensive description of the RI Work to be performed, including the scope, methodologies, and schedule for completion. The RIWP

shall also include, at a minimum, all requirements under Section 3.4 of this SOW unless EPA agrees that one or more provisions is not necessary. The RI is typically conducted over multiple years where tasks are sequenced and scoped based on the best available information and the CSM. Therefore, there is high probability that either the sequence or scope may change as the CSM is refined and the RI progresses.

- (a) The RIWP describes areas of a site that may pose unacceptable risk to human health or the environment. The RIWP will present a statement describing the release or threat of release of hazardous substances, pollutants, or contaminants at or from the site. Respondent shall develop a specific project scope based on EPA's remedial strategy for the Site (Site Strategy). Initial sampling and analysis activities conducted in and near to identified waste management and disposal areas will include a broader suite of target analytes, while sampling and analysis activities located at greater distance from the waste management and disposal areas may target a more focused suite of analytes, as determined to be appropriate. If commingled contamination (e.g., hazardous substances commingled with other pollutants or contaminants) are discovered at the Site, then addressing the constituents contaminated in the commingled contamination shall be incorporated into the FS. The RI shall consist of collecting data to characterize site conditions (including meteorology affecting the site, 40 C.F.R. § 300.430(d)(2)(i), determining the nature and extent of the contamination at or from the Site, collecting data to assess risk to human health, sensitive populations (40 C.F.R. § 300.430(d)(2)(vii) and the environment, and conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered. Respondent shall identify which climate-related or environmental hazards appropriate to the Site location (e.g., increased severity of wildfire, increased storm intensity, increased flood risk, etc.) may affect the potential remedies at the Site.

The RIWP shall at a minimum, include provisions for the following:

- (1) Development of a site geospatial database for the storage of existing Site data and new Site data acquired through the RI process;
- (2) A geophysical survey of suspect burial areas based on the review of existing data, available documents, and Site visit(s). The survey will be conducted as developed in the RIWP and approved by EPA, using site appropriate methods to search for possible unknown buried drum locations and other potential anomalies. It is anticipated that the geophysical investigation will include more intensive effort near the known disposal areas, along with other methods such as aerial (drone mounted) geophysics as appropriate, for parts of the site that are remote from identified disposal areas;
- (3) An assessment of the construction, condition, and suitability of use of all on-site groundwater monitoring wells. All on-site groundwater monitoring wells deemed suitable for use, shall be redeveloped and sampled to

establish a current baseline, and compared to historical results to provide an initial assessment of stability or trends in COC concentrations over time;

- (4) Expanding the current groundwater monitoring network based on the initial CSM, and through the addition of shallow and deep groundwater monitoring wells, following a high resolution site characterization paradigm, to better establish the current state of the contaminant plume, groundwater potentiometric surfaces, clarify local flow directions, define possible groundwater discharge points in relation to sources and receptors, evaluate potential transport pathways/receptor exposure, and plan for additional sampling;
- (5) An assessment and evaluation of the geologic fault structure and activity and the interactions between shallow and deep groundwater, as well as groundwater-surface water interactions;
- (6) Placement of instrumentation in monitoring wells to measure and record groundwater levels and assess seasonal variability in groundwater flow directions and gradients;
- (7) Quarterly sampling, testing, and monitoring of groundwater from the expanded well network for a minimum of two (2) years to assess seasonal variability and trends of the contaminant plume distribution and concentration in relation to variability in groundwater flow directions and gradients;
- (8) A Site-wide assessment of surface soil and subsurface soil to define primary and secondary contaminant sources, as well as the nature and extent of contaminant occurrences, as informed by the CSM, known patterns of contaminant distribution, and other information available about the site;
- (9) An assessment of the effectiveness of the existing safeguards at the Site;
- (10) An assessment of all area surface bodies affected and potentially affected by groundwater-surface water interactions and air transported particulate deposition;
- (11) Monitoring of on-site weather in combination with groundwater elevations for the development of a Site water balance;
- (12) Site- and area-wide air sampling for particulate-bound COCs to evaluate possible exposure pathways;
- (13) Collection of sufficient data to allow performance of a Human Health Risk Assessment (HHRA) and Ecological Risk Assessment (ERA) in



accordance the NCP, including 40 C.F.R. § 300.430(d)(2)(vii) provision on sensitive populations, and applicable EPA guidance. In addition to environmental and human health concerns related to chemical exposures, data collected shall consider the potential impact to human health and the environment due to climate change and environmental justice concerns to the extent that they may impact current or future potential unacceptable risk posed by the site. Data collection shall include but not be limited to the following.

- (i) Characterization of the nature and extent of chemicals exposure to ecological receptors by analysis of abiotic and biotic media including water, soil, sediment, air, invertebrate and vertebrate tissues, as determined to be appropriate, to inform food web analysis;
  - (ii) A determination of terrestrial and aquatic flora and fauna communities both currently using and native to the site across all seasons and an assessment of their current and potential future exposures to site contamination;
  - (iii) An evaluation of the effects of Site contamination in ecological receptors by comparing exposure concentrations to high quality and relevant ecological screening values and field studies to examine exposure to Site contamination and effects. Field studies shall include temporally paired sampling of reference areas (n>3 preferred for statistical purposes);
  - (iv) Identify reference or background areas depending on the number of habitats encountered at the Site;
  - (v) Characterization of the nature and extent of contamination consistent with EPA guidance and policy to assess the current and potential future human exposure to site contaminants.
- (14) Provisions for early action(s), if EPA determines are necessary, to mitigate potential threats of migration of COCs to areas outside of the Site, to prevent further environmental degradation, or to reduce risks.
- (b) In its description of the methodologies to be used to perform any RI Work, the RIWP shall consider the environmental footprint of all such activities and, to the extent practicable, and take actions to minimize said footprint. Such actions may include reduction in total energy use and increase in the percentage of energy from renewable resources; reduction of air pollutants and greenhouse gas emissions; reduction of water use and preservation of water quality; conservation of material resources; and protection of land. To the extent practicable the respondent shall limit the use plastics during sampling and other activities, and where possible, recycle materials used while on-site (e.g., cardboard from sample

container boxes and other paper products, unused glass or plastic sample containers, plastic drinking water bottles, and stainless-steel bowls and spoons used for sampling).

- (c) The RIWP shall be consistent with the *Consideration of Greener Cleanup Activities in the Superfund Cleanup Process, August 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.

**3.6 RIWP Deliverables.** Respondent shall submit the following deliverables for EPA review and approval unless EPA decides that one or more provisions is not necessary. Annual updates, if determined by EPA to be needed, may be in the form of an addendum to the base plan.

- (a) **Personnel Plan.** The Personnel Plan (PP) shall:
  - (1) Describe the comprehensive approach to managing the RI/FS;
  - (2) Include an organizational chart and the roles and responsibilities of all project personnel; and
  - (3) Be updated annually, and whenever changes in project personnel or any other relevant changes occur.
- (b) **Site Management Plan.** The Site Management Plan (SMP) shall:
  - (1) Outline the processes, procedures, and safeguards that will be used to ensure contaminants or pollutants are not released off-site during the implementation of the RI/FS;
  - (2) Describe how wastes that are encountered during RI activities will be managed and disposed, as appropriate; and
  - (3) Be updated annually with any relevant changes.
- (c) **Data Management Plan.** The Data Management Plan (DMP) shall
  - (1) Detail the standard processes, procedures, and tools that the Respondents will use to support RI/FS activities and include requirements for all EPA data deliverables;
  - (2) Be developed in accordance with EPA national and region-specific data management plans or guidance; and
  - (3) Be an adaptable document, as such Respondent should anticipate reviewing and/or revising annually or prior to each RI field investigation with any relevant changes.
- (d) **Sampling and Analysis Plan.** The sampling and analysis plans (SAPs) for each data collection activity shall

- (1) Describe procedures to ensure that sample collection and analytical activities are conducted in accordance with technically acceptable protocols and that the data meets data quality objectives (DQOs);
  - (2) Address planned field activities; and
  - (3) Describe procedures for expedited sampling in Community Areas as defined under Section 2.2(a), expedited analysis and validation of such samples, and procedures for providing such sample data to EPA for dissemination in accordance with Section 2.2 (Information for the Community).
- (e) **Field Sampling Plan.** The field sampling plan (FSP) shall be written so that experienced personnel unfamiliar with the project will be able to gather the samples and field information required. The FSP shall be prepared in accordance with applicable RI/FS Guidance
- (f) **Emergency Response (ER) and Notification Plan.** The ER and Notification Plan shall describe procedures to be used in the event of an accident or emergency at the site (*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, and federal agencies involved in the cleanup, as well as local ER teams and hospitals;
  - (3) If applicable, a Spill Prevention, Control, and Countermeasures (SPCC) 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 Section 5.7 (Release Reporting) in the event of a release of hazardous substances requiring reporting under section 103 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 the site that constitutes an emergency or may present an immediate threat to human health or welfare or the environment.
- (g) **Waste Management Plan.** Waste Management Plan (WMP) shall:

- (1) Outline the procedures for safe handling of contaminated material, drummed material, and contaminated liquids;
  - (2) Outline the procedures the procedures for off-site transportation and disposal of contaminated materials in accordance with Section 5.74; and
  - (3) Should be reviewed annually and prior to each RI field investigation and updated with any relevant changes.
- (h) **Health and Safety Plan.** The Health and Safety Plan (HASP) shall describe all activities to be performed to protect on-site personnel and workers from physical, chemical, and all other hazards posed by the field sampling, as well as outline procedures for responding to a health and safety emergency. The HASP shall: (1) be prepared in accordance with EPA’s *Emergency Responder Health and Safety Manual* and Occupational Safety and Health Administration (OSHA) requirements under 29 C.F.R. §§ 1910 and 1926; and (2) shall 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.
- (i) **Quality Assurance Project Plan.** Respondent shall collect, produce, evaluate, or use environmental information under a Quality Assurance Project Plan (QAPP) 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).
- (j) **Reuse Assessment.** Respondent will prepare a reuse assessment in accordance with the SOW, RIWP, and applicable EPA guidance. The reuse assessment will inform the development of realistic land use assumptions. The reuse assessment also informs the risk assessments when estimating potential future risks and preliminary remedial action objectives (RAOs) and supports the remedy selection process. Respondent shall update the reuse assessment, as requested by EPA, to account for information obtained during the RI.
- (k) **Identification of Preliminary RAOs and ARARs.** Respondent shall prepare a memo for EPA review approval providing preliminary identification of potential state, tribal, territories, and federal chemical-specific, location-specific, and action-specific ARARs to assist in the refinement of RAOs, and the initial identification of remedial alternatives and ARARs associated with particular actions. ARAR identification will continue as Site conditions, contamination, and remedial action alternatives are refined. Respondent shall also incorporate Federal, State, and Tribal potential ARARs and “to be considered” materials provided by EPA before or with review comments on each deliverable.

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

**3.7 Site Characterization.** As part of the RI, Respondent shall perform the activities to describe areas of a Site that may pose a threat to human health or the environment through the following:

- (a) **Field Investigations.** Field investigations shall be planned to help fill identified data gaps, and include the gathering of data to better define the Site's physical and biological characteristics, potential sources of contamination, and the nature and extent of contamination at the Site in response to the identified data gaps. These activities shall be performed by Respondent in accordance with the RIWP and SAP discussed in Sections 3.3 and 3.4;
- (b) **Implementation and Documentation of Field Support Activities.** Respondent shall initiate field support activities following approval of the RIWP and SAP. Field support activities may include obtaining access to the Site with support from EPA if needed, scheduling and procuring equipment, office space, laboratory services, and/or contractors. Respondent shall notify the EPA RPM at least two (2) months prior to initiating any field support activities so that EPA may adequately schedule oversight tasks. Respondent shall also notify the RPM upon completion of field support activities.
- (c) **Investigate and Define Site Physical and Biological Characteristics.** Respondent shall collect data on the physical and biological characteristics of the Site and its surrounding areas, including the physiography, geology, and hydrology, and specific physical characteristics to fill data gaps identified in the RIWP. This information must be collected and developed through a combination of physical measurements, observations, and sampling efforts, and will be utilized to define potential transport pathways and human, cultural, and ecological receptor populations. In defining the Site's physical characteristics, Respondent shall also obtain sufficient engineering data (such as the effects of contaminated media weathering and ground and surface water contaminant loading) to aid in the evaluation of contaminant fate and transport, and the development and screening of remedial action alternatives, including information to assess treatment technologies.
- (d) **Define Sources of Contamination.** Respondent shall identify and evaluate all known and potential sources of contamination and define the areal extent and

depth of contamination associated with each source in all media. The physical characteristics and chemical constituents and their concentrations must be determined for all previously known and newly discovered sources of contamination. Respondent shall conduct sufficient sampling to define the lateral and vertical boundaries of the contaminant source areas consistent with the QAPP and DQOs. Defining the source of contamination must include analyzing the potential for contaminant release (e.g., long term leaching from soil), contaminant mobility and persistence over time, and characteristics important for evaluating remedial actions, including information to assess treatment technologies.

- (e) **Delineate the Nature and Extent of Contamination.** Respondent shall gather information to delineate the nature and extent of contamination in response to identified data gaps and the preliminary CSM. To describe the nature and extent of contamination, Respondent must utilize the information and site physical and biological characteristics and sources of contamination to give a preliminary estimate of the contaminants that may have migrated, the extent to which they have migrated, and the apparent migration rate. Respondent shall then implement an iterative monitoring program and any additional required study data collection program identified in the RIWP or SAP such that by using analytical techniques sufficient to detect and quantify the concentration of contaminants, the migration of contaminants through the various media at the Site can be detected, determined, and verified using analytical techniques sufficient to detect and quantify the concentration of contaminants. In addition, Respondent shall collect data for calculations of contaminant fate and transport. This process must be continued until the area and depth of contamination are known. This information will be used to determine the level of risk presented by the Site and to help develop appropriate remedial action alternatives for evaluation.

**3.8 Data Analyses.** Respondent shall analyze and evaluate both preexisting and newly collected data to describe: (1) Site physical and biological characteristics; (2) contaminant source characteristics; (3) nature and extent of contamination; and (4) contaminant fate and transport. Results of the Site physical characteristics, source characteristics, and extent of contamination analyses are utilized in the analysis of contaminant fate and transport. The evaluation must include the actual and potential future magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants. Where modeling is appropriate, such models shall be identified to EPA in a technical memorandum prior to their use. All data and programming, including any proprietary programs, shall be made available to EPA together with a sensitivity analysis. The RI data shall be presented in an electronic format). The validated data, along with QA/QC information and data validation summaries, shall be submitted in electronic format within 30 calendar days from receipt of data for the last sample of each sampling event from the laboratory. Respondent shall then collect any data required to address data gaps identified by EPA as needed. This evaluation shall also provide information relevant to Site characteristics necessary to evaluate the need for remedial action and aid in the development and evaluation of

remedial alternatives. Analyses of data collected for Site characterization must meet the DQOs developed in the QA/QC plan stated in the SAP (or as revised during the RI).

**3.9 Data Management.** Respondent shall consistently document the quality and validity of field and laboratory data compiled during the RI as outlined in the SAP and QAPP in Sections 3.5(d) and 3.5(i). Data management procedures shall be documented in the data management plan, Section 3.5(c). Data management shall consist of the following:

- (a) **Field Activities Documentation.** Information gathered during Site characterization shall be consistently documented and adequately recorded by the Respondent in well-maintained field logs and laboratory reports. The method(s) of documentation shall be specified in the RIWP and/or the SAP, and may include Tablet computer or other digital data collection devices. Field logs and photographs shall be utilized to document observations, measurements, and significant events that have occurred during field activities. Laboratory reports shall document sample custody, analytical responsibility, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.
- (b) **Maintain Sample Management and Tracking.** Respondent shall maintain field reports, sample shipment records, analytical results, and QA/QC reports to ensure that only validated analytical data are reported and utilized in the development and evaluation of remedial alternatives. Analytical results developed under the RIWP must not be included in any Site characterization reports unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, Respondent shall establish a data security system to safeguard chain-of-custody forms and other project records to prevent loss, damage, or alteration of project documentation.
- (c) **Data Validation Management.** All validated data shall be made available to EPA in electronic format. The validated data, along with QA/QC information and data validation summaries, shall be submitted in electronic format within 30 calendar days from receipt of data for the last sample of each sampling event from the laboratory. Field data and validated analytical data results for all media sampled shall be submitted to EPA.

**3.10 Site Characterization Deliverables.** Respondent shall prepare Site characterization Data Summary reports and a RI report.

- (a) **Preliminary Site Characterization Summaries.** After completing each field event, the Respondent shall prepare a concise Site Characterization Data Summary Report (DSR). This report shall summarize the investigative activities that have taken place and describe and display Site data documenting the location and characteristics of surface and subsurface features and contamination at the Site, including the affected media, locations, types, physical state, concentrations of contaminants and quantities. In addition, DSRs shall document the collection, processing, management, distribution, analysis and archival of data and present

information about location, dimensions, physical condition, and varying concentrations of each contaminant for each identified source as well as the geospatial distribution of contaminant concentration results in collected samples, the extent of contaminant migration through each of the affected media, and shall include field logs, photos, and laboratory report. Respondent shall format the data prescribed in Section 6.2 (Data Format Specifications).

Each DSR shall also evaluate data gaps and identify additional and/or modified sampling and analysis that shall be included in modifications to the SAP for the subsequent field season. If substantial changes in site characterization are identified, the Respondent shall update the CSM. If acceptable to EPA, the DSR following the final field season of data collection can be eliminated as a separate deliverable, and the information collected during the final field season can be presented in the RI report.

- (b) **Draft RI Report.** Respondent shall submit to EPA for review and approval pursuant to Section 6.4 (Approval of Deliverables), a draft RI report consistent with the SOW, RIWP, and with EPA guidance and regulations. This report shall summarize results of all field activities to characterize the Site, including sources of nature and extent of and the fate and transport of contamination. Respondent will refer to the RI/FS Guidance for an outline of the report format and contents. Following comments by EPA, Respondent will prepare a final RI report which satisfactorily addresses these comments.

**3.11 Treatability Study.** If potential remedial actions involving treatment have been identified by EPA or Respondent, Respondent shall conduct treatability studies, except where the Respondent can demonstrate to EPA's satisfaction that they are not needed. Respondent shall provide EPA with the following deliverables for review:

- (a) **Identification of Candidate Treatability Study Technologies Memorandum.** Summarizes a literature review of applicable technologies to gather information on performance, relative costs, applicability, removal efficiencies, operation and maintenance requirements, and implementability of candidate treatability study technologies. This memorandum shall be submitted as set forth in the RIWP or as specified by EPA, for EPA approval.
- (b) **Treatability Test Work Plan.** If EPA determines that treatability testing is required, Respondent shall submit a treatability test work plan, including a schedule, FSP, QAPP and HASP, for EPA review and approval as appropriate. The work plan shall describe the Site background, remedial technology(ies) to be tested, test objectives, experimental procedures, treatability conditions to be tested, measurements of performance, analytical methods, data management and analysis, residual waste management, and DQOs. If pilot scale treatability testing is to be performed, the pilot scale work plan will describe pilot plant installation and start-up, pilot plant operation and maintenance procedures, operating conditions to be tested, a sampling plan to determine pilot plant performance, and



a detailed health and safety plan. If testing is to be performed off-site, permitting requirements must be addressed.

- (c) **Treatability Study Evaluation Report.** Upon completion of the treatability studies, Respondent 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.

Following comments by EPA, Respondent shall prepare a final report which satisfactorily addresses these comments.

#### **4. FEASIBILITY STUDY**

The FS is comprised of two primary activities: (1) the development and screening of alternatives, and (2) the detailed analysis of alternatives. The alternatives surviving the screening process will be subject to the detailed analysis process. The FS Report shall document the results of these two components of the FS.

**4.1 Feasibility Study.** The FS shall identify and evaluate (based on treatability testing, where appropriate) remedial alternatives to prevent, mitigate, or otherwise respond to or remediate the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site. If there is potential commingling of hazardous substances with pollutants or contaminants at the Site, 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 at the Site. The remedial alternatives evaluated must include, but shall not be limited to, 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. Respondent shall also evaluate potential impacts that treatment technologies have on other hazardous substances, pollutants, or contaminants at or from the site. In evaluating the alternatives, Respondent shall address the factors required by Section 121 of CERCLA, and 40 C.F.R. § 300.430(e).

An Addendum to the RIFS Work Plan specific to conducting the FS may be required based on the outcome of the RI and Treatability Studies.

**4.2 FS Deliverables.** Respondent shall submit the following deliverables for EPA review and approval unless EPA decides that one or more provisions is not necessary:

- (a) **Refine RAOs and ARARs.** Respondent shall prepare a memorandum evaluating the RAOs and ARARs described in Section 3.5 (k) with the findings of the RI. Respondent will review and, if necessary, modify the site-specific RAOs, specifically the preliminary remediation goals (PRGs), that were established by EPA prior to or during discussions between EPA and Respondent, based on the results of the HHRA and ERA. The revised RAOs and PRGs will be documented in this memorandum that will be reviewed and approved by EPA. These modified PRGs will specify the contaminants and media of interest, exposure pathways and receptors, and an acceptable contaminant level or range of levels (at locations for each exposure route), basis for the value, and the associated residual risk. This 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 at the site or multiple pathways of exposure for sites with known or suspected carcinogens, in accordance with 40 C.F.R. § 300.430(e)(2)(i)(A)(2).
- (b) **Identify and Evaluate Remedial Technologies.** Respondent shall assess individual alternatives, identify, and evaluate technologies applicable to each general response action, and eliminate those that cannot be implemented at the site. Emerging technologies shall be considered given site-specific conditions and anticipated RAOs. General remedial action alternatives will be refined to specify remedial technology types. Technology process options for each of the technology types will be identified either concurrent or following the screening of the considered technology. Process options will be evaluated on the basis of effectiveness, implementability, and cost factors to select and retain one or, if necessary, more representative processes for each technology type. Analysis must include reasons for eliminating technologies and alternatives, and updated alternatives may need to be defined based on successful and effective technologies. The technology types, process options and any recommended updated alternatives will be summarized for inclusion in a technical memorandum.
- (c) **Comparative Analysis of Alternatives.** Respondent shall conduct a comparative analysis of alternatives to evaluate the relative performance of each alternative in relation to the nine evaluation criteria and prepare a summary report. This range of alternatives shall include, as appropriate, options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but varying in the types of treatment, the amount treated, and 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. As to (3), the Comparative Analysis's evaluation shall (consistent with 40 C.F.R. § 300.430(e)(9)(iii)(C)) 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 a particular alternative's protectiveness to the impacts of climate change. In addition, where appropriate for particular evaluation criteria, Respondent shall also evaluate, to the extent practicable, opportunities to reduce the environmental footprint of each alternative. Such evaluation should 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*, August 6, 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.

For each alternative, Respondent 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 Respondent does not have direct input on criteria (8) state (or support agency) acceptance and criteria (9) community acceptance, these will be addressed by EPA. Note that criteria (8) and (9) are not addressed until after the proposed plan, and feedback related to these criteria may require revision of the FS after receipt.

- (d) **Environmental Justice Concerns about Disproportionate Impacts:** Consistent with 40 C.F.R. § 300.430(e)(2)(i)(A)(1), Respondent shall identify different remedial options in the FS to address, where applicable and in consultation with and as approved by EPA, environmental justice concerns regarding the potential for disproportionate impacts from the contaminated site, including through the site's contribution to cumulative impacts on the affected community. Evaluation of the potential for disproportionate impacts shall consider indicators of population vulnerability and pollutant 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. Respondent shall identify and document all sources of information reviewed and implemented to address the environmental justice concerns.
- (e) **Refine IC Evaluation.** Respondent shall prepare a memorandum revising the ICs in Section 3.5 (l) with the findings of the RI. Respondent shall review and, if necessary, modify the site-specific ICs that were established by EPA prior to or during discussions between EPA and Respondent. The ICs evaluation shall also

identify how the ICs response actions 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 FS Report.

- (f) **FS Report.** Respondent shall submit to EPA a draft FS report for review and approval pursuant to Section 6.4 (Approval of Deliverables). Respondent shall refer to Table 6-5 of the RI/FS Guidance for report content and format. The FS report and the administrative record shall provide sufficient information to support the remedial alternatives analysis and remedy selection under Sections 113(k) and 117(a) of CERCLA. Respondent shall prepare a final FS report which satisfactorily addresses EPA comments.

## 5. MEETINGS, PERMITS, and REPORTS

### 5.1 Meetings

- (a) **Kickoff Meetings.** Within 14 calendar days of the Effective Date of the Settlement, Respondent shall schedule an initial kickoff meeting with technical staff, EPA, and other stakeholders to discuss this SOW, project specific requirements and objectives, a site visit, document review needs, and the CSM. EPA will determine the site-specific objectives of the RI and will provide Respondent a strategic approach, per Section 3.6 of this SOW.

Within 14 calendar days of the Respondent's submitting both the Previous Investigation Summary Report (Section 3.1) and the CSM Report (Section 3.3), Respondent shall schedule a second meeting with technical staff, EPA, and other stakeholders to discuss data gaps identified in the Previous Investigation Summary Report and CSM Report, the RIWP, potential sampling and analysis methods, and performance goals. The deliverable after this kickoff meeting will be a project schedule covering the performance of all aspects of the RI/FS and the deliverables outlined under Section 3. The kickoff meetings and systematic planning meetings referenced in Section 5.1(b) will be documented in the QAPP.

- (b) **Systematic Project Planning Meetings.** Within the schedule set forth in the RIWP, Respondent shall schedule systematic project planning meetings with EPA and technical staff. Systematic project planning is a process that requires Respondent and EPA to convene during key milestones in the RI/FS schedule in order to update the CSM, and to review the sequence and scope of upcoming RI/FS tasks to determine if they are still appropriate or need modification.

Systematic planning meetings shall occur quarterly, or as determined by the EPA. Respondent shall prepare and submit a meeting agenda seven (7) calendar days prior to each meeting. The Respondent shall provide meeting minutes and an

amended project schedule, if needed, within 14 calendar days after the planning meetings.

- (c) **Meetings.** Respondent shall participate in meetings and make presentations at the request of EPA during the preparation of the RI/FS. Topics will include anticipated problems, RI/FS updates, or new issues. Meetings will be scheduled at EPA's discretion. Respondent will be given a minimum of 30 calendar days' notice prior to such meetings.

**5.2 Progress Reports.** Commencing with the first full month following the Effective Date of the Settlement and until EPA approves the FS report, Respondent shall submit monthly progress reports to EPA by the tenth (10th) business day of the following month. Respondent shall also schedule and participate in biweekly conference calls, or as otherwise requested by EPA. Progress reports must cover all activities that took place during the prior reporting period, including:

- (a) Describe the actions that have been taken under this SOW;
- (b) Include all results of sampling and tests and all other data received by Respondent;
- (c) Describe Work planned for the next two (2) months with schedules relating such Work to the overall project schedule for RI/FS completion;
- (d) Describe 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) Describe of any modifications to the work plans or other schedules Respondent has proposed or that have been approved by EPA; and
- (f) Describe all activities undertaken in support of the CIP during the reporting period and those to be undertaken in the next four (4) weeks.

**5.3 Notice of Schedule Changes.** If the schedule for any activity described in the Progress Reports, including deliverables required under Section 3 and Section 6, changes, Respondent shall notify EPA of such change at least 30 calendar days before they perform the activity.

**5.4 Investigation Derived Waste.** Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-site facility only if it is documented that the facility complies with Section 121(d)(3) of CERCLA, Section 300.440 (Off-Site Rule) of the NCP, 40 C.F.R. § 300.400, and *EPA's Guide to Management of Investigation Derived Waste*, OSWER 9345.3-03FS (Jan. 1992). Respondent shall provide EPA with said documentation prior to shipment of waste from the Site to an off-site facility. Respondent shall provide EPA with copies of final disposal documentation (e.g., waste manifests) within 14 calendar

day of receipt. 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, 40 C.F.R. § 300.440.

For all materials, the Respondent shall be responsible for the following:

- (a) Preparing all waste profile applications and questionnaires, bills of lading, and waste manifests with all applicable analytical backup, notification, and control forms.
- (b) Coordination with the disposal facilities and all federal and state environmental agencies.
- (c) Department of Transportation (DOT) shipping papers, and chain-of-custody procedures should also be included.

## 5.5 Permits

- (a) As provided in CERCLA Section 121(e), and Section 300.400(e) of the NCP, 40 C.F.R. § 300.400(e), 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, Respondent shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.
- (b) Respondent may seek relief under the provisions of Section XVIII (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 Section 5.5(a) and required for the Work, provided that 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.** 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 the site and that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Respondent shall: (1) immediately take all appropriate action to prevent, abate, or minimize such release or threat of release; (2) immediately notify the authorized EPA officer (as specified in Section 5.7) orally; and (3) take such actions in consultation with the authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plan, the Emergency Response Plan, and any other deliverable approved by EPA under this SOW.

**5.7 Release Reporting.** Upon the occurrence of any event during performance of the RI Work that Respondent is required to report pursuant to Section 103 of CERCLA, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), Respondent shall immediately notify the authorized EPA officer orally.

- (a) The “authorized EPA officer” for purposes of immediate oral notifications and consultations is the EPA RPM/OSC, the EPA Alternate RPM/OSC (if the EPA RPM/OSC is unavailable), or the EPA Region 10 Emergency Response Unit, if neither EPA RPM/OSC is available.
- (b) For any event covered by Section 5.6, Respondent shall: (1) within seven (7) calendar 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 14 calendar days after the conclusion of such event, submit a report to EPA describing all actions taken in response to such event.
- (c) The reporting requirements under Section 5.6 are in addition to the reporting required by CERCLA Section 103 or EPCRA Section 304.

## **6. DELIVERABLES**

### **6.1 General Requirements for Deliverables.**

- (a) Respondent shall submit deliverables for EPA approval or for EPA comment as specified in this SOW. If neither is specified, the deliverable does not require EPA’s approval or comment. Section 6.2 (Data Format Specifications) apply to all deliverables. Section 6.3 (Certification) applies to any deliverable that is required to be certified. Section 6.44 (Approval of Deliverables) applies to any deliverable that is required to be submitted for EPA approval. All deliverables must be submitted by the deadlines in the RI/FS Schedule in Section 7.1.
- (b) Respondent shall submit all deliverables in electronic form. Data format specifications for sampling, analytical and monitoring data and spatial data are addressed in Section 6.2. All other deliverables shall be submitted in the electronic form specified by EPA’s RPM/OSC. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5 x 11 inches, Respondent shall also provide EPA hard copies of such exhibits if requested. EPA shall indicate the number of hard copies to deliver.

### **6.2 Data Format Specifications**

- (a) Sampling, analytical and monitoring data should be submitted in standard regional Electronic Data Deliverable (EDD) Scribe-compatible format. 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, should be submitted: (1) in the ESRI File Geodatabase format; and (2) as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should 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 (EME), complies with these FGDC and EPA metadata requirements and is available at <https://www.epa.gov/geospatial/epa-metadata-editor>
- (c) Each file must 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 Respondent does not, and is not intended to, define the boundaries of the Site.

**6.3 Certification.** All deliverables that require compliance with this Section must be signed (which may include electronically signed) by Respondent’s Project Coordinator, or other responsible official of Respondent, and must 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.

**6.4 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; or (iv) any combination of the foregoing.
- (2) 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 Section 6.4(a) (Initial Submissions), or if required by a notice of approval upon specified conditions under Section 6.4(a), Respondent shall, within 14 calendar days or such longer time as specified by EPA in such notice, 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 Respondent to correct the deficiencies; or (5) any combination of the foregoing.
- (c) **Implementation.** Upon approval, approval upon conditions, or modification by EPA under Section 6.4(a) (Initial Submissions) or Section 6.4(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) Respondent 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 Section 6.4(a) or Section 6.4(b) does not relieve Respondent of any liability for stipulated penalties under Section XIX (Stipulated Penalties) of the Settlement.
- (d) Notwithstanding the receipt of a notice of disapproval, Respondent 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, Respondent shall incorporate and integrate information supplied by EPA into those reports.
- (f) Respondent 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: RI/FS Work Plan; Sampling and Analysis Plan; draft RI Report; Treatability Testing Work Plan; Treatability Testing Sampling and Analysis Plan; Treatability Testing Health and Safety Plan; and draft FS Report. While awaiting EPA approval, approval on condition, or modification of these deliverables, Respondent 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 Section 3 and Section 4, Respondent shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval of the submitted deliverable. EPA reserves the right to stop Respondent 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 Section 6.4(a) (Initial Submissions) or (b) (Resubmissions) due to such material defect, Respondent shall be deemed in violation of this Settlement for failure to submit such plan, report, or other deliverable timely and adequately. Respondent may be subject to penalties for such violation as provided in Section XIV (Stipulated Penalties) of the Settlement.

**6.5 Tribal Review and Comment.** Interested Tribes will have a reasonable opportunity for review and comment prior to any EPA approval or disapproval under Section 6.44 (Approval of Deliverables) of any deliverables that are required to be submitted for EPA approval.

**6.6 Notice of Completion of RI/FS Work.** When EPA determines that all RI/FS Work has been fully performed in accordance with this Settlement, with the exception of any continuing obligations required by this Settlement (e.g., payment of Future Response Costs, land, water, or other resource use restrictions, and Record Retention), EPA will provide written notice to Respondent. If EPA determines that any Work has not been completed in accordance with this Settlement, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the RI/FS Work Plan, if appropriate, in order to correct such deficiencies. Respondent shall implement the modified and approved RIWP and shall submit a modified draft RI Report and/or FS Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified RI/FS Work Plan shall be a violation of the Settlement.

## 7. SCHEDULE

**7.1** All deliverables and tasks required under this SOW must be submitted or completed by the deadlines or within the time durations listed in the RI/FS schedule set forth below. Respondent may submit proposed revised RI/FS schedules for EPA approval. Upon EPA’s approval, the revised RI/FS schedule supersedes any prior RI/FS schedule. All days listed below are calendar days.

Description	Reference	Deadline
Designate CI Coordinator	2.3	Within <u>  30  </u> days after EPA request
Technical Assistance Plan	2.4	Within <u>  30  </u> days after EPA request
Initial Kickoff Meeting	5.1	Schedule within <u>  14  </u> days after Effective Date
Previous Investigation Summary Report	3.1	Within <u>  60  </u> days after Effective Date of the ASAOC
Conceptual Site Model Report	3.4	Within <u>  60  </u> days after Effective Date of the ASAOC
Secondary Kickoff Meeting	5.1	Schedule within <u>  14  </u> days after approval of the Previous Investigation Summary Report and Conceptual Site Model Report
Draft RIWP Deliverables	3.6	Within <u>  90  </u> days after Effective Date of the ASAOC

Final RIWP Deliverables	3.6	Within _30_ days after receipt of consolidated Agency comments
Draft RIWP	3.5	Within _120_ days after Effective Date of the ASAOOC
Final RIWP	3.5	Within _30_ days after receipt of consolidated Agency comments on Draft RIWP
Site Characterization Activities	3.7	Begin within _60_ days after EPA approval of Final RIWP
Data Validation Summaries	3.8	Within 30 days from receipt of final laboratory data packages for the last sample from each sampling event.
Site Characterization Data Summary Report	3.10	Within _45_ days after receipt date of final laboratory data
Draft RIWP Addenda, as needed	3.5	Within 45 days after consolidated Agency comments on the Site Characterization Data Summary Report
Final RIWP Addenda, as needed	3.5	Within _30_ days after receipt of consolidated Agency comments
Site Characterization Data Summary Report Addenda	3.10	Within _45_ days after days after receipt date of final laboratory data
Draft RI Report	3.10	According to EPA-agreed schedule in RIWP
Final RI Report	3.10	Within _60_ days after receipt of consolidated Agency comments on the Draft RI Report
Feasibility Study Work Plan		
Candidate Treatment Technologies Report	3.11	According to EPA-agreed schedule in RIWP or RIWP FS Addendum
Treatability Study Work Plan	3.11	According to EPA-agreed schedule in RIWP or RIWP FS Addendum
Treatability Study Evaluation Report	3.11	According to EPA-agreed schedule in RIWP or RIFS FS Addendum
FS Deliverables	4.2	Within _60_ days after EPA approval of the Final RI Report or approval of any needed RIFS FS Addendum
Draft FS Report	4.2	Within _120_ days after EPA approval of the Final RI Report, FS Deliverables, and any required additional treatability studies or other pre-FS investigation
Final FS Report	4.2	Within _60_ days after receipt of consolidated Agency comments on the Draft FS Report
Meetings	5.1	As identified in the SOW, or as required by EPA with minimum 30 days notice given to Respondent prior to meeting date.

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## 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 two EPA Web pages listed in Section 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).
  - (d) CERCLA Compliance with Other Laws Manual, Part II, OSWER 9234.1-02, EPA/540/G-89/009 (Aug. 1989).
  - (e) Guide to Management of Investigation-Derived Wastes, OSWER 9345.303FS (Jan. 1992).
  - (f) Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, OSWER 9355.703 (Feb. 1992).
  - (g) Guidance for Conducting Treatability Studies under CERCLA, OSWER 9380.3-10, EPA/540/R92/071A (Nov. 1992).
  - (h) National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, 40 C.F.R. Part 300 (Oct. 1994).
  - (i) EPA Guidance for Data Quality Assessment, Practical Methods for Data Analysis, QA/G-9, EPA/600/R-96/084 (July 2000).
  - (j) Guidance for Quality Assurance Project Plans, QA/G-5, EPA/240/R02/009 (Dec. 2002).
  - (k) Institutional Controls: Third Party Beneficiary Rights in Proprietary Controls (Apr. 2004).
  - (l) Quality management systems for environmental information and technology programs -- Requirements with guidance for use, ASQ/ANSI E4:2014 (American Society for Quality, February 2014).
  - (m) Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A through 900C (Mar. 2005).

- (n) Superfund Community Involvement Handbook, SEMS 100000070 (March 2020), <https://www.epa.gov/superfund/community-involvement-tools-and-resources>.
- (o) EPA Guidance on Systematic Planning Using the Data Quality Objectives Process, QA/G-4, EPA/240/B-06/001 (Feb. 2006).
- (p) EPA Requirements for Quality Assurance Project Plans, QA/R-5, EPA/240/B01/003 (Mar. 2001, reissued May 2006).
- (q) EPA Requirements for Quality Management Plans, QA/R-2, EPA/240/B01/002 (Mar. 2001, reissued May 2006).
- (r) EPA directive CIO 2105.1 (Environmental Information Quality Policy, 2021), [https://www.epa.gov/sites/production/files/2021-04/documents/environmental\\_information\\_quality\\_policy.pdf](https://www.epa.gov/sites/production/files/2021-04/documents/environmental_information_quality_policy.pdf)
- (s) USEPA Contract Laboratory Program Statement of Work for Organic Superfund Methods (Multi-Media, Multi-Concentration), SOM02.4 (Oct. 2016), <https://www.epa.gov/clp/epa-contract-laboratory-program-statement-work-organic-superfund-methods-multi-media-multi-1>.
- (t) USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration), ISM02.4 (Oct. 2016), <https://www.epa.gov/clp/epa-contract-laboratory-program-statement-work-inorganic-superfund-methods-multi-media-multi-1>.
- (u) EPA National Geospatial Data Policy, CIO Policy Transmittal 05-002 (Aug. 2008), <https://www.epa.gov/geospatial/geospatial-policies-and-standards> and <https://www.epa.gov/geospatial/epa-national-geospatial-data-policy>.
- (v) Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration, OSWER 9283.1-33 (June 2009).
- (w) Principles for Greener Cleanups (Aug. 2009), <https://www.epa.gov/greenercleanups/epa-principles-greener-cleanups>.
- (x) Consideration of Greener Cleanup Activities in the Superfund Cleanup Process (Aug. 2016), <https://semspub.epa.gov/work/HQ/100000160.pdf>
- (y) Providing Communities with Opportunities for Independent Technical Assistance in Superfund Settlements, Interim (Sep. 2009).
- (z) Close Out Procedures for National Priorities List Sites, OSWER 9320.2-22 (May 2011).
- (aa) Groundwater Road Map: Recommended Process for Restoring Contaminated Groundwater at Superfund Sites, OSWER 9283.1-34 (July 2011).

- (bb) Recommended Evaluation of Institutional Controls: Supplement to the “Comprehensive Five-Year Review Guidance,” OSWER 9355.7-18 (Sep. 2011).
- (cc) Updated Superfund Response and Settlement Approach for Sites Using the Superfund Alternative Approach, OSWER 9200.2125 (Sep. 2012)
- (dd) Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites, OSWER 9355.0-89, EPA/540/R-09/001 (Dec. 2012).
- (ee) Institutional Controls: A Guide to Preparing Institutional Controls Implementation and Assurance Plans at Contaminated Sites, OSWER 9200.0-77, EPA/540/R-09/02 (Dec. 2012).
- (ff) EPA’s Emergency Responder Health and Safety Manual, OSWER 9285.3-12 (July 2005 and updates), [https://www.epaosc.org/\\_HealthSafetyManual/manual-index.htm](https://www.epaosc.org/_HealthSafetyManual/manual-index.htm).
- (gg) Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4, EPA/240/B-06/001, Office of Environmental Information (Feb. 2006), <https://www.epa.gov/sites/production/files/2015-06/documents/g4-final.pdf>
- (hh) Consideration of Tribal Treaty Rights and Traditional Ecological Knowledge in the Superfund Remedial Program, OLEM 9200.2-177 (Jan. 2017), <https://semspub.epa.gov/src/document/11/500024668>
- (ii) Smart Scoping for Environmental Investigation Technical Guide, EPA 542-G-18-004 (November 2018), <https://semspub.epa.gov/work/HQ/100001799.pdf>
- (jj) Strategic Sampling Approaches Technical Guide, EPA 542-F-18-005 (November 2018), <https://semspub.epa.gov/work/HQ/100001800.pdf>
- (kk) Best Practices for Data Management, EPA 542-F-18-003, (November 2018), <https://semspub.epa.gov/work/HQ/100001798.pdf>
- (ll) Smart Scoping of an EPA-Lead Remedial Investigation/Feasibility Study, EPA 542-F-19-0006 (Oct. 2020), <https://semspub.epa.gov/work/HQ/100002571.pdf>
- (mm) Interim Final Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part A),” RAGS, EPA-540-1-89-002, OSWER Directive 9285.7-01A (December 1989)
- (nn) Interim Final Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments),”
- (oo) RAGS, EPA-540-R-97-033, OSWER Directive 9285.7-01D (January 1998)

- (pp) Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments,” ERAGS, EPA-540-R-97-006, OSWER Directive 9285.7-25 (June 1997).
- (qq) Reuse Assessments: A Tool to Implement the Superfund Land Use Directive.” OSWER Directive 9355.7-06P (June 2001)
- (rr) EPA 540/F-01/014 ECO Update: The Role of Screening-Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments, June 2001
- (ss) EPA QA Field Activities Procedure” CIO 2105-P-02.1 (9/23/2014)
- (tt) “EPA Requirements for Quality Management Plans (QA/R-2)” EPA/240/B-01/002 (March 2001, reissued May 2006)
- (uu) “Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration.” OSWER Directive 9283.1-33 (June 2009)
- (vv) Considering Reasonably Anticipated Future Land Use and Reducing Barriers to Reuse at EPA-lead Superfund Remedial Sites. OSWER Directive 9355.7-19 (March 2010)
- (ww) Consideration of Climate Resilience in the Superfund Cleanup Process for Non-Federal National Priorities List Sites. June 30, 2021

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

- (a) Laws, Policy, and Guidance: <https://www.epa.gov/superfund/superfund-policy-guidance-and-laws>
- (b) Test Methods Collections: <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/measurements/documents-about-measurement-competency-under-acquisition-agreements>
  - (3) EPA’s Contract Laboratory Program <https://www.epa.gov/clp>

SW 846 “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods: <https://www.epa.gov/hw-sw846>

- (4) Standard Methods for the Examination of Water and Wastewater: <http://www.standardmethods.org/>
- (5) 40 C.F.R. Part 136, “Air Toxics - Monitoring Methods: <https://www3.epa.gov/ttnamti1/airtox.html>
- (d) Superfund Reuse: <https://www.epa.gov/superfund-redevelopment-initiative/superfund-redevelopment-basics#policy>
- (e) Superfund Greener Cleanups/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/sites/production/files/2014-1/documents/eco\\_risk\\_assessment1998.pdf](https://www.epa.gov/sites/production/files/2014-1/documents/eco_risk_assessment1998.pdf)

**8.3** For any regulation or guidance referenced in the Settlement or this 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 Respondent receive notification from EPA of the modification, amendment, or replacement.