APPENDIX B

REMEDIAL DESIGN/REMEDIAL ACTION

STATEMENT OF WORK

CENTREDALE MANOR RESTORATION PROJECT SUPERFUND SITE

Town of North Providence, Providence County, State of Rhode Island

EPA Region 1

June 2018

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Purpose of the SOW. This Statement of Work (SOW) sets forth the procedures and requirements for implementing the Work.

1.2 Structure of the SOW.

- Section 2 (Community Involvement) sets forth EPA's and Settling Defendants' (SDs') responsibilities for community involvement.
- Section 3 (Remedial Design) sets forth the process for developing the RD, which includes the submission of specified primary deliverables.
- Section 4 (Remedial Action) sets forth requirements regarding the completion of the RA, including primary deliverables related to completion of the RA.
- Section 5 (Reporting) sets forth SDs' reporting obligations.
- Section 6 (Deliverables) describes the content of the supporting deliverables and the general requirements regarding SDs' submission of, and EPA's review of, approval of, comment on, and/or modification of, the deliverables.
- Section 7 (Schedules) sets forth the schedule for submitting the primary deliverables, specifies the supporting deliverables that must accompany each primary deliverable, and sets forth the schedule of milestones regarding the completion of the RA.
- Section 8 (State Participation) addresses State participation.
- Section 9 (References) provides a list of references, including URLs.

1.3 The Scope of the Remedy includes the actions described in Section L of the ROD, including, but not limited to, (i) conversion of existing surfaces in the Source Area (soil caps, parking lots, paved areas, tailrace, and landscape areas) into a Resource Conservation and Recovery Act (RCRA) C cap; (ii) excavation of the majority of contaminated Woonasquatucket River sediment and floodplain soil in the Allendale and Lyman Mill reaches of the River and placement into an upland confined disposal facility (CDF) with off-site treatment and/or disposal of dewatered sediment and floodplain soil that exceeds the Land Disposal Restrictions' (LDRs') alternative treatment standards; (iii) placement of a thin layer cover over remaining contaminated sediment in the River and remaining contamination in the Oxbow wetland; (iv) placement, monitoring and enforcement of institutional controls (ICs) to prevent exposure and preserve the integrity of components of the remedy; (v) long-term monitoring, including surface water and groundwater monitoring and monitoring downstream of Lyman Mill Dam, and maintenance to protect the integrity of the RCRA C cap, upland CDF, Allendale and

Lyman Mill dams and thin-layer wetland cover; and (vi) mitigation of wetlands and floodplains. This SOW does not include precautionary interim measures on residential properties as described in the ROD, which were completed by RIDEM and EPA in 2013/2014. Also, this SOW does not include pre-design data collection and analysis in Cap Area #1 of the Source Area which was performed in 2013 by a group of Potentially Responsible Parties under an Administrative Order on Consent.

1.4 Since issuing the ROD, EPA has endorsed the State of Rhode Island's Core Comprehensive State Ground Water Protection Program (CSGWPP).

1.5 The terms used in this SOW that are defined in CERCLA, in regulations promulgated under CERCLA, or in the CD, have the meanings assigned to them in CERCLA, in such regulations, or in the CD, except that the term "Paragraph" or "¶" means a paragraph of the SOW, unless otherwise stated. In addition, "Action Area" means the areas set forth in the ROD into which the Site has been divided for cleanup purposes including Source Area Soil, Source Area Groundwater, Allendale Pond and Lyman Mill Pond Sediment, Allendale Floodplain Soil, and Lyman Mill Stream Sediment and Floodplain Soil (including the Oxbow wetland). "Disposal Sites" means the locations where contaminated sediment and floodplain soil will be disposed of, excluding contamination that exceeds the LDRs' alternative treatment standards.

1.6 Requirements of all SOW Sections (Sections 2 through 7), including RA Completion determinations, apply to each Action Area of the Remedy and can be done in phases, if approved by EPA.

2. COMMUNITY INVOLVEMENT

2.1 Community Involvement Responsibilities

(a) EPA has the lead responsibility for developing and implementing community involvement activities at the Site. Previously during the RI/FS phase, EPA developed a Community Involvement Plan (CIP) for the Site. Pursuant to 40 C.F.R. § 300.435(c), EPA shall review the existing CIP and determine whether it should be revised to describe further public involvement activities during the Work that are not already addressed or provided for in the existing CIP, including, if applicable, any Technical Assistance Grant (TAG), any use of the Technical Assistance Services for Communities (TASC) contract, and/or any Technical Assistance Plan (TAP).

(b) If requested by EPA, SDs shall support EPA's community involvement activities. This may include providing online access to initial submissions and updates of deliverables to (1) Community Advisory Groups, (2) Technical Assistance Grant 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 SDs' responsibilities for community involvement activities. All community

involvement activities conducted by SDs at EPA's request are subject to EPA's oversight.

(c) **SDs' CI Coordinator**. If requested by EPA, SDs shall, within 15 days, designate and notify EPA of SDs' Community Involvement Coordinator (SDs' CI Coordinator). SDs may hire a contractor for this purpose. SDs' notice must include the name, title, and qualifications of the SDs' CI Coordinator. SDs' CI Coordinator is responsible for providing support regarding EPA's community involvement activities, including coordinating with EPA's CI Coordinator regarding responses to the public's inquiries about the Site.

3. REMEDIAL DESIGN

3.1 **RD Work Plan**. SDs shall submit a Remedial Design (RD) Work Plan (RDWP) for EPA approval. The RDWP must include:

(a) Plans for implementing all RD activities identified in this SOW, in the RDWP, or required by EPA to be conducted to develop the RD;

(b) A description of the overall management strategy for performing the RD, including a proposal for phasing of design and construction. The SDs may propose to have the RDWP, PDI Work Plans, Preliminary RD, Pre-Final RD, and Final RD for different components of the selected remedy proceed along separate timelines. If SDs wish to pursue such an alternative approach, SDs shall provide their phasing proposal to EPA for approval at the same time as their submission of notification of the Supervising Contractor;

(c) A description of the proposed general approach to contracting, construction, operation, maintenance, and monitoring of the Remedial Action (RA) as necessary to implement the Work. EPA will encourage the use of a local workforce including SDs' cooperation in the utilization of EPA's job readiness program (Superfund Job Training Initiative (SuperJTI));

(d) A description of the steps to be taken to obtain access and to acquire and/or lease real property in connection with the Work;

(e) A proposal for phasing of design and construction, including phasing of design and construction for each Action Area and for the waste Disposal Sites;

(f) A description of the responsibility and authority of all organizations and key personnel involved with the development of the RD;

(g) Descriptions of any areas requiring clarification and/or anticipated problems (e.g., data gaps), including any cleanup level evaluations and updates as envisioned by the ROD;

(h) A description of any required sampling and investigation activities and strategies, including background contamination evaluations, any contamination delineation, and determination of pre-construction baseline conditions;

(i) A description of any required physical and ecological surveys, including physical surveys and drainage evaluations in the Source Area, and habitat evaluations, engineering analysis, and hydrodynamic analysis in the Oxbow area;

(j) A description of any required Stage IB cultural resources survey to comply with the National Historic Preservation Act (NHPA) and a description of an approach to determine any required levels of mitigation of any adverse effects of the remedy on the cultural resources, which would be a basis of a Memorandum of Agreement with the Rhode Island State Historic Preservation Officer (SHPO), and/or Narragansett Indian Tribal Historic Preservation Officer (THPO);

(k) Descriptions of any applicable permitting requirements and other regulatory requirements;

(l) A description of the process for implementing ICs (to be finalized in the Institutional Controls Implementation and Assurance Plan (ICIAP));

(m) All supporting deliverables required to accompany the RDWP as specified in the RD Schedule set forth in ¶ 7.2 ("RD Schedule").

3.2 SDs shall meet regularly with EPA and the State to discuss design issues as necessary, as directed or determined by EPA.

3.3 **Pre-Design Investigations**. The purpose of the Pre-Design Investigations (PDIs) is to address data gaps by conducting additional field investigations, information gathering, studies, evaluations, and modeling and shall include but not be limited to all pre-design and design studies/investigations identified in the ROD or proposed by Settling Defendants and approved by EPA. SDs may propose that requirements set out below be included in the PDI.

(a) **PDI Work Plans**. SDs shall submit PDI Work Plans (PDIWPs) to EPA for review and approval. Each PDIWP must include:

(1) An evaluation and summary of existing data and description of data gaps;

(2) Proposed investigations such as modeling, evaluations, and studies;

(3) A sampling plan including media to be sampled, contaminants or parameters for which sampling will be conducted, location (areal extent and depths), and number of samples; and

(4) Cross references to quality assurance/quality control (QA/QC) requirements set forth in the Quality Assurance Project Plan (QAPP) as described in ¶ 6.7(d).

(b) Following the PDIs, SDs shall submit PDI Evaluation Reports to EPA for review and approval. These reports must include:

(1) Summary of the investigations performed;

(2) Summary of investigation results;

(3) Summary of validated data (i.e., tables and graphics);

(4) Data validation reports and laboratory data reports;

(5) Narrative interpretation of data and results;

(6) Results of statistical and modeling analyses;

(7) Photographs documenting the work conducted; and

(8) Conclusions and recommendations for RD, including design parameters and criteria.

(c) EPA may require SDs to supplement the PDI Evaluation Reports and/or to perform additional pre-design studies.

(d) Some of the various PDI Work Plans and related Evaluation Reports may include but are not limited to:

(1) A Source Area Cover System Design Report: SDs shall submit a Source Area Cover System Design Report. This deliverable shall include a qualitative and quantitative analysis demonstrating that the proposed cover system complies with the standards set forth in 40 C.F.R. § 264.310(a) ("RCRA Performance Standards") and 40 C.F.R. § 761.61(c) (TSCA risk-based requirements for PCB Remediation Waste) and is equally protective when compared to the Revised Alternative Cap Design Guidance Proposed for Unlined, Hazardous Waste Landfills in the EPA Region 1 (February 5, 2001). Emhart may use results of PDIs, including leachability testing, a Brook Village/Centredale Manor construction phasing study, and a source area surface grading and drainage study, to support its design of the cap components. Based on the results of these studies, Emhart may propose a cap design that may not utilize an impermeable liner in certain areas of the Source Area. The cap design does not need to be uniform over the entire Source Area; however, the coverage extent of the impermeable liner shall be maximized (including but not limited to over any areas contaminated with PCBs at

concentrations of 50 mg/kg or greater). As part of the cap design, SDs may propose a plan for EPA approval that includes the excavation and consolidation of contaminated soil within the Source Area and takes into account the impact on the residents. The Design Report shall include justification for any areas not covered by an impermeable liner.

(2) Background Floodplain Soil Characterization Report: SDs shall submit a Background Floodplain Soil Characterization Report. The purpose of this report shall be to confirm floodplain soil contaminant concentrations upstream from the Site. Background floodplain soil data will be used for both the Allendale Floodplain Soil and the Lyman Mill Floodplain Soil (including Oxbow) action areas. Floodplain soil cleanup levels which are based on background levels may be adjusted by EPA based on these data.

(3) Residential Floodplain Soil Characterization Report: SDs shall submit a Residential Floodplain Soil Characterization Report. SDs may propose property-by-property determinations of appropriate exposure areas to determine the properties requiring excavation.

(4) Background River Sediment Characterization Report: SDs shall submit a Background River Sediment Characterization Report. The purpose of this report shall be to confirm sediment and fish tissue contaminant concentrations upstream from the Site. Background sediment and fish tissue data will be used for both Allendale and Lyman Mill ponds. Sediment cleanup levels that are based on background levels may be adjusted by EPA based on these data.

(5) Allendale and Lyman Mill Pond Sediment Pre-Characterization Report: SDs shall submit an Allendale and Lyman Mill Pond Sediment Pre-Characterization Report. This deliverable shall include a three-dimensional quantitative analysis of the sediments prior to excavation sufficient to allow for the selection of the limits of sediment removal without the need for further confirmational sampling and analyses. This deliverable shall also include the three-dimensional delineation of all areas of sediment contamination in excess of the applicable LDRs for use in determining the limits of removal for compliance with the LDRs. The data collected in developing this report shall be sufficient in all respects to allow EPA to support the use of the data in lieu of additional sampling and analyses prior to disposal. Should SDs propose a design with pre-determined depths for excavation of sediment in either or both ponds, they shall also propose a planned thin layer cover to be installed over all excavated areas with a goal of achieving unlimited recreational use of the Ponds without relying on maintenance and/or the implementation of ICs in the Ponds. The pre-design investigations will also include ecological surveys, as well as sampling of surface water, benthos, and fish tissue to establish pre-remediation baseline conditions.

(6) Oxbow Investigation and Hydrodynamic Model Report: SDs shall submit an Oxbow Investigation and Hydrodynamic Model Report. Pre-design investigations will include physical and ecological surveys to further delineate wetlands functions and to identify any potential vernal pools and collection of benthic soil, sediment and surface water samples to establish pre-construction baseline conditions. A hydrodynamic model will be developed to characterize erosion potential of the thin layer sand cap and to aid in evaluating the effectiveness of engineered controls (e.g. flow baffles) intended to maximize sedimentation rates and reduce erosion potential in areas of the Oxbow slated to receive a thin layer cover. If the hydrodynamic modeling analysis along with engineering professional judgment does not result in a degree of certainty acceptable to EPA related to deposition (and length of time to achieve the desired level of risk reduction) and stability (and risks of downgradient migration), or other factors, an increase in the excavation footprint beyond the area identified (resulting in a reduction in the proportion of the remedial footprint receiving the thin layer cover) can be proposed by SDs for EPA approval or required by EPA. Increases in the excavation footprint will need to consider any additional information concerning the possible presence of sensitive species in the Oxbow (e.g., vernal pools).

(7) Sediment Dewatering Treatability Study Report: SDs shall submit a Sediment Dewatering Treatability Study Report. The objective of this study is to select a preferred option for dewatering the excavated pond sediment prior to treatment or disposal. Pilot testing would be conducted for the most favorable technologies in order to develop design parameters for full-scale operation.

(8) Sediment Dewatering Facility Siting Report: SDs shall submit a Sediment Dewatering Facility Siting Report. SDs will perform the necessary investigation and predesign work to identify potential locations for a Sediment Dewatering Facility adjacent to the ponds. The dewatering process and site requirements will be determined based on the results of the Sediment Dewatering Treatability Study.

(9) Sediment Disposal Siting Study Report: For any disposal in an Upland CDF location, SDs will perform the necessary investigation and predesign work to identify potential locations for an upland CDF adjacent to the site, consistent with Paragraph 3.7(a)(3). The following investigations/ evaluations could be used in selecting an Upland CDF location: an assessment of existing environmental conditions (including field sampling as appropriate) associated with the potential CDF location; an evaluation of CDF parcel preparation requirements (such as structure demolition, utility relocation, etc.); development of a conceptualized CDF parcel development plan for construction, operation, and closure of the landfill; development and implementation of required

field studies (survey, traffic, geotechnical, etc.); and identification of CDF parcel specific permit requirements (federal, state and local).

3.4 **Preliminary (30%) RD**. SDs shall submit a Preliminary (30%) RD for EPA's comment and approval. The Preliminary RD must include:

(a) A design criteria report, as described in the *Remedial Design/Remedial Action Handbook*, EPA 540/R-95/059 (June 1995);

(b) Design analysis, including assumptions and parameters, design restrictions, design calculations, process performance criteria, and appropriate unit processes for the treatment train (e.g., sediment dewatering);

(c) Preliminary drawings and specifications;

(d) Descriptions of permit requirements, if applicable;

(e) Preliminary identification of the waste Disposal Sites and permit requirements, if needed;

(f) Preliminary evaluations of measures to minimize impacts to the wetlands and floodplains;

(g) Preliminary description of access requirements, acquisition of property interests, and proposed easements;

(h) Preliminary Operation and Maintenance (O&M) Plan and O&M Manual;

(i) A description of monitoring and control measures to protect human health and the environment, such as air monitoring and dust suppression, during the RA;

(j) Any proposed revisions to the RA Schedule that is set forth in ¶ 7.3 (RA Schedule); and

(k) All supporting deliverables required to accompany the Preliminary RD as specified in the RD Schedule.

3.5 **Pre-Final (95%) RD**. SDs shall submit the Pre-final (95%) RD for EPA's comment and approval. The Pre-final RD must be a continuation and expansion of the previous design submittal and must address EPA's comments regarding the Preliminary RD. The Pre-final RD will serve as the approved Final (100%) RD if EPA approves the Pre-final RD without comments. The Pre-final RD must include:

(a) A complete set of construction drawings and specifications that are: (1) certified by a registered professional engineer; (2) suitable for procurement; and (3) follow the Construction Specifications Institute's MasterFormat 2012;

(b) A survey and engineering drawings showing existing Site features, such as elements, property borders, easements, and Site conditions;

(c) Pre-Final versions of the same elements and deliverables as are required for the Preliminary RD;

(d) An RA sampling and monitoring plan, addressing all required construction monitoring, construction testing, and confirmatory sampling;

(e) A wetland and habitat restoration and mitigation plan and lost floodplain storage capacity mitigation plan;

(f) A description of plans for obtaining access agreements;

(g) A description of plans for acquiring property interests;

(h) A summary of spill control plan or other plans to eliminate or reduce incidence of emissions during construction, and to minimize the impacts of such potential releases to adjacent environments (e.g., wetlands, surface waters, groundwater);

(i) A specification for photographic documentation of the RA; and

(j) Supporting deliverables as specified in the RD Schedule.

3.6 Final (100%) RD. SDs shall submit the Final (100%) RD for EPA approval. The Final RD must address EPA's comments on the Pre-final RD and must include final versions of all Pre-final deliverables.

3.7 Potential Modifications to the Remedy.

(a) Based on the PDIs, other possible proposals submitted during the RD, and EPA's approval of Rhode Island's CSGWPP as referenced in paragraph 1.4 above, EPA and the SDs anticipate further consideration of the following potential modifications to the remedy:

(1) Classification of the groundwater in accordance with the State groundwater classification system instead of the federal classification system.

(2) Prior to installation of the RCRA Subtitle C cap in the Source Area, possible excavation of a limited amount of contaminated soils with consolidation of these soils within the Source Area.

(3) Disposal of a portion of the contaminated soils and sediments at the Site (i.e., those below the LDRs' alternative treatment standards) at an existing Subtitle D landfill based on a determination by EPA that these wastes may be removed from regulation under Subtitle C of RCRA

consistent with EPA's "Contained-In" policy for contaminated media, in accordance with "Management of Remedial Waste Under RCRA," OSWER Directive EPA530-F-98-026 (October 1998).

(b) EPA may document any such modifications as appropriate, including but not limited to, in design and construction documents or through issuance of an Explanation of Significant Differences (ESD), after entry of a consent decree, and may seek public comment on any such modifications.

(c) If any of the above-changes to the remedy are adopted by EPA, they shall be considered to be "within the Scope of the Remedy" for purposes of ¶ 1.3 of this SOW. Emhart remains obligated to perform the Work regardless of whether or not EPA adopts any such changes.

(d) In the event that any changes are made to the remedy, and if requested by EPA, SDs shall support related community involvement activities consistent with ¶ 2.1.

(e) Except as provided in this paragraph, nothing herein alters or amends the requirement in the CD and SOW that SDs perform other modifications to the remedy.

4. REMEDIAL ACTION

4.1 **RA Work Plan**. SDs shall submit a RA Work Plan (RAWP) for EPA approval that includes:

(a) A proposed RA Construction Schedule such as a Gantt chart or equivalent;

(b) The identity of, contact information for, and description of the roles of, the members of SDs' RA project team, including the Project Coordinator and Supervising Contractor;

(c) An updated health and safety plan that covers activities during the RA; and

(d) Plans for satisfying permitting requirements, including obtaining permits for off-site activity, if applicable, and for satisfying substantive requirements of permits for on-site activity.

4.2 **Independent Quality Assurance Team**. SDs shall notify EPA of SDs' designated Independent Quality Assurance Team (IQAT). The IQAT will be independent of the Supervising Contractor. SDs may hire a third party for this purpose. SDs' notice must include the names, titles, contact information, and qualifications of the members of the IQAT. The IQAT will have the responsibility to determine whether Work is of expected quality and conforms to applicable plans and specifications. The IQAT will have the responsibilities as described in ¶ 2.1.3 of the *Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties*, EPA/540/G-90/001 (Apr. 1990).

4.3 Meetings and Inspections

(a) **Conferences to be held prior to performance of PDI field work, and Preconstruction**. SDs shall hold conferences with EPA, the State, and others, prior to performance of PDI field work, and prior to construction conference, as directed or approved by EPA. See *Remedial Design/Remedial Action Handbook*, EPA 540/R-95/059 (June 1995). SDs shall prepare minutes of these conferences and shall distribute the minutes to all Parties.

(b) **Periodic Meetings**. During the construction portion of the RA (RA Construction), and PDI activities, SDs shall meet at least monthly with EPA, the State, and others as directed or determined by EPA, to discuss field studies and construction issues. SDs shall distribute an agenda and list of attendees to all Parties prior to each meeting. SDs shall prepare minutes of the meetings and shall distribute the minutes to all Parties.

(c) **Inspections**

(1) EPA shall conduct periodic inspections of or have an on-site presence during various phases of the Work. At EPA's request, the Supervising Contractor or other designee shall accompany EPA during inspections.

(2) SDs shall provide on-site office space for EPA personnel to perform their oversight duties.

(3) Upon notification by EPA of any deficiencies in the RA Construction or PDIs, SDs shall take all necessary steps to correct the deficiencies and/or bring the RA Construction or PDIs into compliance with any applicable document, including, PDI Evaluation Reports, the approved Final RD, any approved design changes, and/or the approved RAWP. If applicable, SDs shall comply with any schedule provided by EPA in its notice of deficiency.

4.4 Emergency Response and Reporting

(a) **Emergency Response and Reporting**. 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 and that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, SDs 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 ¶ 4.4(c)) 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 the SOW.

(b) **Release Reporting**. Upon the occurrence of any event during performance of the Work that SDs are 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, SDs shall immediately notify the authorized EPA officer orally.

(c) The "authorized EPA officer" for purposes of immediate oral notifications and consultations under ¶ 4.4(a) and ¶ 4.4(b) is the EPA Project Coordinator, the EPA Alternate Project Coordinator (if the EPA Project Coordinator is unavailable), or the EPA Emergency Response Unit, Region 1 (if neither EPA Project Coordinator is available).

(d) For any event covered by ¶ 4.4(a) and ¶ 4.4(b), SDs shall: (1) within 14 days after the onset of such event, submit a report to EPA describing the actions or events that occurred and the measures taken, and to be taken, in response thereto; and (2) within 30 days after the conclusion of such event, submit a report to EPA describing all actions taken in response to such event.

(e) The reporting requirements under ¶ 4.4 are in addition to the reporting required by CERCLA § 103 or EPCRA § 304.

4.5 Off-Site Shipments

(a) SDs may ship hazardous substances, pollutants, and contaminants from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. SDs will be deemed to be in compliance with CERCLA § 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if SDs obtain 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). SDs may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if they comply with EPA's *Guide to Management of Investigation Derived Waste*, OSWER 9345.3-03FS (Jan. 1992).

(b) SDs may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, they provide notice to the appropriate state environmental official in the receiving facility's state and to the EPA Project Coordinator. This notice requirement will not apply to any off-Site shipments when the total quantity of all such shipments does not exceed 10 cubic yards. The 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. SDs also shall notify the state environmental official referenced above and the EPA Project Coordinator of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. SDs shall provide the notice after the award of the contract for RA construction and before the Waste Material is shipped.

4.6 RA Construction Completion

(a) For purposes of this ¶ 4.6, "RA Construction" comprises, for any RA that involves the construction and operation and/or monitoring of a system to achieve Performance Standards (for example, sediment removal to achieve biota targeted levels), the construction of such system and the performance of all activities necessary for the system to function properly and as designed.

(b) **Inspection of Constructed Remedy**. SDs shall schedule an inspection to review the construction and operation and/or monitoring of the system and to review whether the system is functioning properly and as designed. The inspection must be attended by SDs and EPA and/or their representatives. A re-inspection must be conducted if requested by EPA.

(c) **RA Report**. Following completion of all construction activities, SDs shall submit an "RA Report" requesting EPA's determination that RA Construction has been completed. The RA Report must: (1) include statements by a registered professional engineer and by SDs' Project Coordinator that construction of the system is complete and that the system is functioning properly and as designed; (2) include a demonstration, and supporting documentation, that construction of the system is complete and that the system is functioning properly and as designed; (3) include as-built drawings signed and stamped by a registered professional engineer; (4) be prepared in accordance with Chapter 2 (Remedial Action Completion) of EPA's *Close Out Procedures for NPL Sites* guidance (May 2011); and (5) be certified in accordance with ¶ 6.5 (Certification).

(d) If EPA determines that RA Construction is not complete, EPA shall so notify SDs. EPA's notice must include a description of, and schedule for, the activities that SDs must perform to complete RA Construction. EPA's notice may include a schedule for completion of such activities or may require SDs to submit a proposed schedule for EPA approval. SDs shall perform all activities described in the EPA notice in accordance with the schedule.

(e) If EPA determines, based on the initial or any subsequent RA Report, that RA Construction is complete, EPA shall so notify SDs.

4.7 Certification of RA Completion

(a) **RA Completion Inspection**. The RA is "Complete" for purposes of this ¶ 4.7 when it has been fully performed and the Performance Standards have been achieved. SDs shall schedule an inspection for the purpose of obtaining EPA's Certification of RA Completion. The inspection must be attended by SDs and EPA and/or their representatives.

(b) **RA Report**. Following the inspection, SDs shall submit a RA Report to EPA requesting EPA's Certification of RA Completion. The report must: (1) include

certifications by a registered professional engineer and by SD's Project Coordinator that the RA is complete; (2) include as-built drawings signed and stamped by a registered professional engineer; (3) be prepared in accordance with Chapter 2 (Remedial Action Completion) of EPA's *Close Out Procedures for NPL Sites* guidance (May 2011); (4) contain monitoring data to demonstrate that Performance Standards have been achieved; and (5) be certified in accordance with ¶ 6.5 (Certification).

(c) If EPA concludes that the RA is not Complete, EPA shall so notify SDs. EPA's notice must include a description of any deficiencies. EPA's notice may include a schedule for addressing such deficiencies or may require SDs to submit a schedule for EPA approval. SDs shall perform all activities described in the notice in accordance with the schedule.

(d) If EPA concludes, based on the initial or any subsequent RA Report requesting Certification of RA Completion, that the RA is Complete, EPA shall so certify to SDs. This certification will constitute the Certification of RA Completion for purposes of the CD, including Section **XV** of the CD (Covenants by Plaintiffs). Certification of RA Completion will not affect SDs' remaining obligations under the CD.

4.8 Certification of Work Completion

(a) **Work Completion Inspection**. SDs shall schedule an inspection for the purpose of obtaining EPA's Certification of Work Completion. The inspection must be attended by SDs and EPA and/or their representatives.

(b) **Work Completion Report**. Following the inspection, SDs shall submit a report to EPA requesting EPA's Certification of Work Completion. The report must: (1) include certifications by a registered professional engineer and by SDs' Project Coordinator that the Work, including all O&M activities, is complete; and (2) be certified in accordance with ¶ 6.5 (Certification). If the RA Report submitted under ¶ 4.7(b) includes all elements required under this ¶ 4.8(b), then the RA Report/ suffices to satisfy all requirements under this ¶ 4.8(b).

(c) If EPA concludes that the Work is not complete, EPA shall so notify SDs. EPA's notice must include a description of the activities that SDs must perform to complete the Work. EPA's notice must include specifications and a schedule for such activities or must require SDs to submit specifications and a schedule for EPA approval. SDs shall perform all activities described in the notice or in the EPA-approved specifications and schedule.

(d) If EPA concludes, based on the initial or any subsequent report requesting Certification of Work Completion, that the Work is complete, EPA shall so certify in writing to SDs. Issuance of the Certification of Work Completion does not affect the following continuing obligations: (1) activities under the Periodic

Review Support Plan; (2) obligations under Sections **VIII** (Property Requirements), **XIX** (Retention of Records), and **XVIII** (Access to Information) of the CD; (3) Institutional Controls obligations as provided in the ICIAP; and (4) reimbursement of EPA's Future Response Costs under Section **X** (Payments for Response Costs) of the CD.

5. REPORTING

5.1 **Progress Reports**. Commencing with the 1st month following lodging of the CD and until EPA approves the RA Completion, SDs shall submit progress reports to EPA on a monthly basis, or as otherwise requested by EPA. The reports must cover all activities in each Action Area, as applicable, that took place during the prior reporting period, including:

(a) The actions that have been taken toward achieving compliance with the CD;

(b) A summary of all results of sampling, tests, and all other data received or generated by SDs;

(c) A description of all deliverables that SDs submitted to EPA;

(d) A description of all activities relating to RA Construction that are scheduled for the next six weeks;

(e) An updated RA Construction Schedule, together with information regarding percentage of completion, delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays;

(f) A description of any modifications to the work plans or other schedules that SDs have proposed or that have been approved by EPA; and

(g) A description of all activities undertaken in support of the Community Involvement Plan (CIP) during the reporting period and those to be undertaken in the next six weeks.

5.2 **Notice of Progress Report Schedule Changes**. If the schedule for any activity described in the Progress Reports, including activities required to be described under ¶ 5.1(d), changes, SDs shall notify EPA of such change at least 7 days before performance of the activity.

6. DELIVERABLES

6.1 **Applicability**. SDs shall submit deliverables for EPA approval or for EPA comment as specified in the SOW. If neither is specified, the deliverable does not require EPA's approval or comment. Paragraphs 6.2 (In Writing) through 6.4 (Technical Specifications) apply to all deliverables. Paragraph 6.5 (Certification) applies to any deliverable that is

required to be certified. Paragraph 6.6 (Approval of Deliverables) applies to any deliverable that is required to be submitted for EPA approval.

6.2 **In Writing**. As provided in **¶ 102** of the CD, all deliverables under this SOW must be in writing unless otherwise specified.

6.3 All deliverables must be submitted by the deadlines in the RD Schedule or RA Schedule, as applicable. SDs shall submit all deliverables to EPA in electronic form.

6.4 **Technical Specifications**

(a) Sampling and monitoring data should be submitted in standard regional Electronic Data Deliverable (EDD) format. (The format shall be compatible with the existing Site ACCESS database.)

(b) Spatial data, including spatially-referenced data and geospatial data, should be submitted: (1) in the ESRI File Geodatabase format compatible with current Site GIS system. All of shapefiles are to be housed in separate folders as opposed to all being in a single geodatabase. SDs should keep the same naming structure that files/folders have in the current GIS file system; 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://edg.epa.gov/EME/.

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

(d) Spatial data submitted by SDs does not, and is not intended to, define the boundaries of the Site.

6.5 **Certification**. All deliverables that require compliance with this ¶ 6.5 must be signed by the SDs' Project Coordinator, or other responsible official of SDs, and must contain the following statement:

I certify under penalty of law 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6.6 Approval of Deliverables

(a) **Initial Submissions**

(1) After review of any deliverable that is required to be submitted for EPA approval under the CD or the 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 ¶ 6.6(a) (Initial Submissions), or if required by a notice of approval upon specified conditions under ¶ 6.6(a), SDs shall, within 30 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 SDs to correct the deficiencies; or (5) any combination of the foregoing.

(c) **Implementation**. Upon approval, approval upon conditions, or modification by EPA under ¶ 6.6(a) (Initial Submissions) or ¶ 6.6(b) (Resubmissions), of any deliverable, or any portion thereof: (1) such deliverable, or portion thereof, will be incorporated into and enforceable under the CD; and (2) SDs shall take any action required by such deliverable, or portion thereof. The implementation of any non-deficient portion of a deliverable submitted or resubmitted under ¶ 6.6(a) or ¶ 6.6(b) does not relieve SDs of any liability for stipulated penalties under Section **XIV** (Stipulated Penalties) of the CD.

6.7 Supporting Deliverables. SDs shall submit each of the following supporting deliverables for EPA approval, except as specifically provided. The deliverables must be submitted, for the first time, by the deadlines in the RD Schedule or the RA Schedule, or any other EPA-approved schedule, as applicable. SDs shall develop the deliverables in

accordance with all applicable regulations, guidances, and policies (see Section 9 (References)). SDs shall update each of these supporting deliverables as necessary or appropriate during the course of the Work, and/or as requested by EPA.

(a) **Health and Safety Plan**. The Health and Safety Plan (HASP) describes all activities to be performed to protect on site personnel and area residents from physical, chemical, and all other hazards posed by the Work. SDs shall develop the HASP in accordance with EPA's Emergency Responder Health and Safety and Occupational Safety and Health Administration (OSHA) requirements under 29 C.F.R. §§ 1910 and 1926. The HASP should cover RD activities and should be, as appropriate, updated to cover activities during the RA and updated to cover activities after RA completion. 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.

(b) **Emergency Response Plan**. The Emergency Response Plan (ERP) must describe procedures to be used in the event of an accident or emergency at the Site (for example, power outages, water impoundment failure, treatment plant failure, slope failure, etc.). The ERP must include:

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

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

(3) Spill Prevention, Control, and Countermeasures (SPCC) Plan (if applicable), consistent with the regulations under 40 C.F.R. Part 112, describing measures to prevent, and contingency plans for, spills and discharges;

(4) Notification activities in accordance with ¶ 4.4(b) (Release Reporting) in the event of a release of hazardous substances requiring reporting under 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; and

(5) A description of all necessary actions to ensure compliance with Paragraph **11** (Emergencies and Releases) of the CD in the event of an occurrence during the performance of the Work that causes or threatens a release of Waste Material from the Site that constitutes an emergency or may present an immediate threat to public health or welfare or the environment.

(c) **Field Sampling Plan**. The Field Sampling Plan (FSP) supplements the QAPP and addresses all sample collection activities. The FSP must be written so that a field sampling team unfamiliar with the project would be able to gather the samples and field information required. SDs shall develop the FSP in accordance with *Guidance for Conducting Remedial Investigations and Feasibility Studies*, EPA/540/G 89/004 (Oct. 1988).

(d) **Quality Assurance Project Plan**. The Quality Assurance Project Plan (QAPP) addresses sample analysis and data handling regarding the Work. The QAPP must include a detailed explanation of SDs' quality assurance, quality control, and chain of custody procedures for all PDI, design, compliance, and monitoring samples. SDs shall develop the QAPP in accordance with *EPA Requirements for Quality Assurance Project Plans*, QA/R-5, EPA/240/B-01/003 (Mar. 2001, reissued May 2006); *Guidance for Quality Assurance Project Plans*., QA/G-5, EPA/240/R 02/009 (Dec. 2002); and *Uniform Federal Policy for Quality Assurance Project Plans*, Parts 1-3, EPA/505/B-04/900A though 900C (Mar. 2005). The QAPP also must include procedures:

(1) To ensure that EPA and the State and their authorized representatives have reasonable access to laboratories used by SDs in implementing the CD (SDs' Labs);

(2) To ensure that SDs' Labs analyze all samples submitted by EPA pursuant to the QAPP for quality assurance monitoring;

(3) To ensure that SDs' Labs perform all analyses using EPA-accepted methods (i.e., the methods documented in *USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis*, ILM05.4 (Dec. 2006); *USEPA Contract Laboratory Program Statement of Work for Organic Analysis*, SOM01.2 (amended Apr. 2007); and *USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration)*, ISM01.2 (Jan. 2010)) or other methods acceptable to EPA;

(4) To ensure that SDs' Labs participate in an EPA-accepted QA/QC program or other program QA/QC acceptable to EPA;

(5) For SDs to provide EPA and the State with notice at least 28 days prior to any sample collection activity;

(6) For SDs to provide split samples and/or duplicate samples to EPA and the State upon request;

(7) For EPA and the State to take any additional samples that they deem necessary;

(8) For EPA and the State to provide to SDs, upon request, split samples and/or duplicate samples in connection with EPA's and the State's oversight sampling; and

(9) For SDs to submit to EPA and the State all sampling and tests results and other data in connection with the implementation of the CD.

(e) **Site Wide Monitoring Plan**. The purpose of the Site Wide Monitoring Plan (SWMP) is to obtain baseline information regarding the extent of contamination in affected media at the Site; to obtain information, through short- and long- term monitoring, about the movement of and changes in contamination throughout the Site, before and during implementation of the RA; to obtain information regarding contamination levels to determine whether PS are achieved; and to obtain information to determine whether to perform additional actions, including further Site monitoring. The SWMP must include:

(1) Description of the environmental media to be monitored;

(2) Description of the data collection parameters, including existing and proposed monitoring devices and locations, schedule and frequency of monitoring, analytical parameters to be monitored, and analytical methods employed;

(3) Description of how performance data will be analyzed, interpreted, and reported, and/or other Site-related requirements;

(4) Description of verification sampling procedures;

(5) Description of deliverables that will be generated in connection with monitoring, including sampling schedules, laboratory records, monitoring reports, and monthly and annual reports to EPA and State agencies; and

(6) Description of proposed additional monitoring and data collection actions (such as increases in frequency of monitoring, and/or installation of additional monitoring devices in the affected areas) in the event that results from monitoring devices indicate changed conditions (such as higher than expected concentrations of the contaminants of concern).

(f) **Construction Quality Assurance/Quality Control Plan (CQA/QCP)**. The purpose of the Construction Quality Assurance Plan (CQAP) is to describe planned and systemic activities that provide confidence that the RA construction will satisfy all plans, specifications, and related requirements, including quality objectives. The purpose of the Construction Quality Control Plan (CQCP) is to describe the activities to verify that RA construction has satisfied all plans, specifications, and related requirements, including quality objectives. The CQA/QCP must:

(1) Identify, and describe the responsibilities of, the organizations and personnel implementing the CQA/QCP;

(2) Describe the Performance Standards (PS) required to be met to achieve Completion of the RA;

(3) Describe the activities to be performed: (i) to provide confidence that PS will be met; and (ii) to determine whether PS have been met;

(4) Describe verification activities, such as inspections, sampling, testing, monitoring, and production controls, under the CQA/QCP;

(5) Describe industry standards and technical specifications used in implementing the CQA/QCP;

(6) Describe procedures for tracking construction deficiencies from identification through corrective action;

(7) Describe procedures for documenting all CQA/QCP activities; and

(8) Describe procedures for retention of documents and for final storage of documents.

(g) **Transportation and Off-Site Disposal Plan**. The Transportation and Off-Site Disposal Plan (TODP) describes plans to ensure compliance with ¶ 4.5 (Off-Site Shipments). The TODP must include:

(1) Proposed routes for off-site shipment of Waste Material;

(2) Identification of communities affected by shipment of Waste Material; and

(3) Description of plans to minimize impacts on affected communities.

(h) **O&M Plan**. The O&M Plan describes the requirements for inspecting, operating, and maintaining the RA. SDs shall develop the O&M Plan in accordance with *Operation and Maintenance in the Superfund Program*, OSWER 9200.1 37FS, EPA/540/F-01/004 (May 2001). The O&M Plan must include the following additional requirements:

(1) **Performance Standards (PS) reporting.** Description of PS required to be met to implement the ROD;

(2) Description of activities to be performed: (i) to provide confidence that PS will be met; and (ii) to determine whether PS have been met;

(3) **O&M Reporting**. Description of records and reports that will be generated during O&M, such as daily operating logs, laboratory records, records of operating costs, reports regarding emergencies, personnel and maintenance records, monitoring reports, and monthly and annual reports to EPA and State agencies;

(4) Description of corrective action in case of systems failure, including: (i) alternative procedures to prevent the release or threatened release of Waste Material which may endanger public health and the environment or may cause a failure to achieve PS; (ii) analysis of vulnerability and additional resource requirements should a failure occur; (iii) notification and reporting requirements should O&M systems fail or be in danger of imminent failure; and (iv) community notification requirements; and

(5) Description of corrective action to be implemented in the event that PS are not achieved; and a schedule for implementing these corrective actions.

(i) **O&M Manual**. The O&M Manual serves as a guide to the purpose and function of the equipment and systems that make up the remedy. If such O&M Manual is required by EPA, SDs shall develop the O&M Manual in accordance with *Operation and Maintenance in the Superfund Program*, OSWER 9200.1 37FS, EPA/540/F-01/004 (May 2001).

(j) **Institutional Controls Implementation and Assurance Plan**. The Institutional Controls Implementation and Assurance Plan (ICIAP) describes plans to implement, maintain, and enforce the Institutional Controls (ICs) at the Site. SDs shall develop the ICIAP in accordance with *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), and *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). The ICIAP must include the following additional requirements:

(1) Locations of recorded real property interests (e.g., easements, liens) and resource interests in the property that may affect ICs (e.g., surface, mineral, and water rights) including accurate mapping and geographic information system (GIS) coordinates of such interests; and

(2) Legal descriptions and survey maps that are prepared according to current American Land Title Association (ALTA) Survey guidelines and certified by a licensed surveyor.

(k) **Annual State of Compliance Reports.** Settling Defendants shall submit Annual State of Compliance Reports that include:

(1) A comprehensive reporting on status of all investigations, construction, monitoring, ICs, and wetland and floodplain mitigation measures required by this SOW;

(2) An evaluation of compliance with Performance Standards for each Action Area, including assessment of the progress being made towards achieving the Performance Standards; and

(3) Recommendations for changes to any aspect of the construction, monitoring, ICs, or wetland and floodplain mitigation measures, including proposed schedule for activities to implement such recommendations.

(l) **Periodic Review Support Plan**. The Periodic Review Support Plan addresses the studies and investigations that SDs shall conduct to support EPA's reviews of whether the RA is protective of human health and the environment in accordance with Section 121(c) of CERCLA, 42 U.S.C. § 9621(c) (also known as "Five-year Reviews"). SD shall develop the plan in accordance with *Comprehensive Five-year Review Guidance*, OSWER 9355.7-03B-P (June 2001), and any other relevant five-year review guidance.

7. SCHEDULES

7.1 Applicability and Revisions. All deliverables and tasks required under this SOW must be submitted or completed by the deadlines or within the time durations listed in the RD and RA Schedules set forth below. SDs may submit proposed revised RD Schedules or RA Schedules for EPA approval. Upon EPA's approval, the revised RD and/or RA Schedules supersede the RD and RA Schedules set forth below, and any previously approved RD and/or RA Schedules.

7.2 RD Schedule

	Description of Deliverable, Task	**Included Supporting Deliverable**	**¶ Ref.**	**Deadline**
1	Designate proposed Project Coordinator and proposed Supervising Contractor		9(c)(1)	10 days after lodging of the CD
2	RDWP	HASP, ERP, FSP, QAPP, SWMP, TSWP	3.1	60 days after EPA's Authorization to Proceed regarding Supervising Contractor under CD ¶ **9.c**
3	PDIWPs	HASP, ERP, FSP, QAPP, SWMP, TSWP	3.3(a)	60 days after EPA's Authorization to Proceed regarding Supervising Contractor under CD ¶ **9.c**
4	PDI Evaluation Reports		3.3(b)	TBD based on Approval of PDIWPs
5	Preliminary (30%) RD	CQA/QCP, TODP, O&M Plan, O&M Manual, ICIAP	3.4, 3.3(a)	TBD based on Approval of PDI Evaluation Reports, but no later than 180 days after Approval of all PDI Evaluation Reports
6	Pre-final (90/95%) RD	Same as above	3.5	120 days after EPA comments on Preliminary RD
7	Final (100%) RD	Same as above	3.5(j)	30 days after EPA comments on Pre-final RD

7.3 RA Schedule

	Description of Deliverable / Task	¶ Ref.	Deadline
1	Award RA contract		15 days after EPA Notice of Authorization to Proceed with RA
2	RAWP	4.1	60 days after EPA Notice of Authorization to Proceed with RA
3	Designate IQAT	4.2	21 days after Approval of RAWP
4	Pre-Construction Conference	4.3(a)	30 days after Approval of RAWP
5	Start of Construction		30 days after Approval of RAWP
6	Completion of Construction		
7	Pre-final Inspection	4.6(b)	15 days after completion of construction
8	Pre-final Inspection Punch List	4.6(c)	15 days after completion of Pre-final Inspection
9	Final Inspection		30 days after Completion of Work identified in Pre-final Inspection Report
10	RA Report	4.6(c)	120 days after PSs determined to be achieved
1		4.7(b)	
11	Annual State of Compliance Report	6.7(k)	Every year after Approval of RAWP
12	Work Completion Report	4.8(b)	
13	Periodic Review Support Plan	6.7(l)	Four years after Start of RA Construction

8. STATE PARTICIPATION

8.1 **Copies**. SDs shall, at any time they send a deliverable to EPA, send a copy of such deliverable to the State. EPA shall, at any time it sends a notice, authorization, approval, disapproval, or certification to SDs, send a copy of such document to the State.

8.2 **Review and Comment**. The State will have a reasonable opportunity for review and comment prior to:

(a) Any EPA approval or disapproval under ¶ 6.6 (Approval of Deliverables) of any deliverables that are required to be submitted for EPA approval; and

(b) Any approval or disapproval of the Construction Phase under ¶ 4.6 (RA Construction Completion), any disapproval of, or Certification of RA Completion under ¶ 4.7 (Certification of RA Completion), and any disapproval of, or Certification of Work Completion under ¶ 4.8 (Certification of Work Completion).

9. REFERENCES

9.1 The following regulations, guidance, and other documents, among others, apply to the Work. The regulations and guidance documents in the ROD Administrative Record, including the Compendium of Selected Key Guidance Documents also 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 ¶ 9.2:

(a) A Compendium of Superfund Field Operations Methods, OSWER 9355.0-14, 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) Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties, OSWER 9355.5-01, EPA/540/G-90/001 (Apr.1990).

(f) Guidance on Expediting Remedial Design and Remedial Actions, OSWER 9355.5-02, EPA/540/G-90/006 (Aug. 1990).

(g) Guide to Management of Investigation-Derived Wastes, OSWER 9345.3-03FS (Jan. 1992).

(h) Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, OSWER 9355.7-03 (Feb. 1992).

(i) Guidance for Conducting Treatability Studies under CERCLA, OSWER 9380.3-10, EPA/540/R-92/071A (Nov. 1992).

(j) National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, 40 C.F.R. Part 300 (Oct. 1994).

(k) Guidance for Scoping the Remedial Design, OSWER 9355.0-43, EPA/540/R-95/025 (Mar. 1995).

(l) Remedial Design/Remedial Action Handbook, OSWER 9355.0-04B, EPA/540/R-95/059 (June 1995).

(m) Construction Quality Assurance (CQA) Plan Requirements for Hazardous Waste Landfills, EM 1110-1-4011 (1999).

(n) USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review with Environmental Data Review Supplement, EPA/540/R 08-01 (June 2008).EPA Guidance for Data Quality Assessment, Practical Methods for Data Analysis, QA/G-9, EPA/600/R-96/084 (July 2000).

(o) Operation and Maintenance in the Superfund Program, OSWER 9200.1-37FS, EPA/540/F-01/004 (May 2001).

(p) Comprehensive Five-year Review Guidance, OSWER 9355.7-03B-P, 540-R-01-007 (June 2001).

(q) Guidance for Quality Assurance Project Plans, QA/G-5, EPA/240/R-02/009 (Dec. 2002).

(r) Institutional Controls: Third Party Beneficiary Rights in Proprietary Controls (Apr. 2004).

(s) Quality Systems for Environmental Data and Technology Programs -- Requirements with Guidance for Use, ANSI/ASQ E4-2004 (2004).

(t) Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A though 900C (Mar. 2005).

(u) Superfund Community Involvement Handbook, EPA/540/K-05/003 (Apr. 2005).

(v) EPA Guidance on Systematic Planning Using the Data Quality Objectives Process, QA/G-4, EPA/240/B-06/001 (Feb. 2006).

(w) EPA Requirements for Quality Assurance Project Plans, QA/R-5, EPA/240/B-01/003 (Mar. 2001, reissued May 2006).

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

(y) USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, ILM05.4 (Dec. 2006).

(z) USEPA Contract Laboratory Program Statement of Work for Organic Analysis, SOM01.2 (amended Apr. 2007).

(aa) EPA National Geospatial Data Policy, CIO Policy Transmittal 05-002 (Aug. 2008), available at http://www.epa.gov/geospatial/policies.html and http://www.epa.gov/geospatial/docs/National_Geospatial_Data_Policy.pdf.

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

(cc) Principles for Greener Cleanups (Aug. 2009), available at http://www.epa.gov/oswer/greenercleanups/.

(dd) USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration), ISM01.2 (Jan. 2010).

(ee) Close Out Procedures for National Priorities List Sites, OSWER 9320.2-22 (May 2011).

(ff) Groundwater Road Map: Recommended Process for Restoring Contaminated Groundwater at Superfund Sites, OSWER 9283.1-34 (July 2011).

(gg) Recommended Evaluation of Institutional Controls: Supplement to the "Comprehensive Five-Year Review Guidance," OSWER 9355.7-18 (Sep. 2011).

(hh) Construction Specifications Institute's MasterFormat 2012, available from the Construction Specifications Institute, www.csinet.org/masterformat.

(ii) Occupational Health and Safety Administration, Standards for General Industry and for Construction Industry, 29 C.F.R. Parts 1910 and 1926.

(jj) Updated Superfund Response and Settlement Approach for Sites Using the Superfund Alternative Approach , OSWER 9200.2-125 (Sep. 2012)

(kk) 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).

(ll) 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).

(mm) EPA's Emergency Responder Health and Safety Manual, OSWER 9285.3-12 (July 2005 and updates), http://www.epaosc.org/_HealthSafetyManual/manual-index.htm

(nn) Broader Application of Remedial Design and Remedial Action Pilot Project Lessons Learned, OSWER 9200.2-129 (Feb. 2013).

(oo) Guidance for Evaluating Completion of Groundwater Restoration Remedial Actions, OSWER 9355.0-129 (Nov. 2013).

(pp) Groundwater Remedy Completion Strategy: Moving Forward with the End in Mind, OSWER 9200.2-144 (May 2014).

(qq) User Guide – Uniform Federal Policy QAPP Template for Soils Assessment of Dioxin Sites (September 2011).

(rr) Draft Final Quality Assurance Project Plan (QAPP) for Pre-Design Investigation for Oxbow Area (Nobis, Battelle, October 2015).

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

Laws, Policy, and Guidance http://www.epa.gov/superfund/policy/index.htm

Test Methods Collections http://www.epa.gov/fem/methcollectns.htm

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