

Appendix B

**REMEDIAL DESIGN / REMEDIAL ACTION
STATEMENT OF WORK
NUCLEAR METALS, INC. SUPERFUND SITE
Concord, Middlesex County, Massachusetts
EPA Region 1**

2018

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	COMMUNITY INVOLVEMENT	2
3.	REMEDIAL DESIGN	3
4.	REMEDIAL ACTION.....	7
5.	REPORTING	12
6.	DELIVERABLES.....	14
7.	SCHEDULES	21
8.	STATE PARTICIPATION.....	23
9.	REFERENCES	24

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, 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 following actions described in Section L of the ROD, including:

- Excavation and off-site disposal of approximately 82,500 cubic yards of contaminated sediments, underground drain lines and debris, and non-Holding Basin soils (contaminated with depleted uranium (DU), polychlorinated biphenyls (PCBs), and other contaminants of concern found in Tables L-2 through L-4) in various areas of the Site;
- *In-situ* stabilization of DU contaminated soils in the Holding Basin via injection of a stabilization agent such as apatite (e.g., Apatite II™) or other comparable stabilization agent to prevent leaching of contaminants to groundwater, and *in-situ* treatment of DU in overburden aquifer and natural uranium in bedrock aquifer;
- Containment of Holding Basin stabilized soils with a low-permeability vertical wall and horizontal sub-grade cover to isolate the stabilized soils and further limit mobility of contaminants by removing the flow of groundwater;
- Extraction and *ex-situ* treatment of volatile organic compounds (VOCs), 1,4-dioxane and other contaminants found in Table L-1 in overburden and bedrock aquifers;
- Long-term monitoring to monitor effectiveness of *in-* and *ex-situ* treatment; and
- Institutional Controls to: 1) prevent unacceptable exposures to, and to prevent disturbance of, the Holding Basin area; 2) prohibit use of contaminated groundwater until cleanup levels are

met; and 3) require installation of vapor mitigation systems should future structures be built above the VOC plume before groundwater cleanup levels are met, unless an evaluation of vapor intrusion risks is performed to show such systems are not required.

1.4 The remedy will be divided into four (4) Remedial Action (“RA”) projects to facilitate efficient implementation of the remedy. Each RA project will proceed independently from Remedial Design through EPA approval of the Remedial Action Report. The four RA projects are:

- 1) excavation and off-site disposal of contaminated sediments, underground drain lines and debris, and non-Holding Basin soils;
- 2) *in-situ* stabilization of DU in soils and *in-situ* treatment of DU and natural uranium in groundwater;
- 3) containment of Holding Basin stabilized soils with a low-permeability vertical wall and horizontal sub-grade cover; and
- 4) *ex-situ* treatment of contaminants found in Table L-1 of the ROD, including VOCs and 1,4-dioxane in groundwater.

Institutional Controls implementation will proceed according to the EPA-approved Institutional Controls Implementation and Assurance Plan (ICIAP), the development of which is found in Paragraph 6.7(j). Long-term monitoring of the *in-* and *ex-situ* treatment RA projects will proceed according to the following EPA-approved deliverables, as revised: RDWP, 100% RD, RAWP, RA Reports, and relevant Supporting Deliverables found in Section 6.7.

1.5 The terms used in this SOW that are defined in CERCLA, in regulations promulgated under CERCLA, or in the Consent Decree (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, and the term “Section” means a section of the SOW, unless otherwise stated.

1.6 Any deliverable approved by EPA pursuant to the Settlement for GW NTCRA shall be: 1) incorporated into the corresponding deliverable for this SOW either by reference or in its entirety; and 2) effective under this SOW until incorporated into a corresponding RD/RA deliverable.

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, 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 continuation of the existing Technical Assistance Grant (TAG).

- (b) If requested by EPA, SDs shall participate in community involvement activities, including participation in (1) the preparation of information regarding the Work for dissemination to the public, including mass media and/or Internet notification, and (2) public meetings that may be held or sponsored by EPA to explain activities at or relating to the Site. SDs' support of EPA's community involvement activities may include providing online access to initial submissions and updates of deliverables to (1) any Community Advisory Groups, (2) any 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. Upon EPA's request, SDs shall establish a community information repository at or near the Site to house one copy of the administrative record.
- (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 description of each RA project, and how the pre-design investigation, design and construction will be phased for that RA project;
- (c) A description of the proposed general approach to contracting, construction, operation, maintenance, and monitoring of the Remedial Action as necessary to implement the Work;
- (d) A description of the responsibility and authority of all organizations and key personnel involved with the development of the RD;
- (e) Descriptions of any areas requiring clarification and/or anticipated problems (e.g., data gaps);

- (f) Description of any proposed pre-design investigation;
- (g) Description of any proposed treatability study;
- (h) Descriptions of any applicable permitting requirements and other regulatory requirements;
- (i) Description of plans for obtaining access in connection with the Work, such as property acquisition, property leases, and/or easements; and
- (j) The following supporting deliverables described in ¶ 6.7 (Supporting Deliverables): Field Sampling Plan; Quality Assurance Project Plan; Health and Safety Plan; Emergency Response Plan; and Site Wide Monitoring Plan.

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

3.3 Pre-Design Investigation. The purpose of the Pre-Design Investigation (PDI) is to address data gaps by conducting additional field investigations.

- (a) **PDI Work Plan.** SDs shall submit a PDI Work Plan (PDIWP) for EPA approval as part of the RDWP. PDIWPs will be developed separately for each of the four (4) RA projects described above in Paragraph 1.4. Each PDIWP must include:
 - (1) An evaluation and summary of existing data and description of data gaps;
 - (2) 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
 - (3) 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 each PDI, SDs shall submit a PDI Evaluation Report. This report 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 Report and/or to perform additional pre-design studies.

3.4 Treatability Study

- (a) SDs shall perform a Treatability Study (TS) for the purpose of testing treatment materials for the on-property contaminated groundwater and holding basin soils.
- (b) SDs shall submit a TS Work Plan (TSWP) for EPA approval. SDs shall prepare the TSWP as part of the RDWP in accordance with EPA's *Guide for Conducting Treatability Studies under CERCLA, Final* (Oct. 1992), as supplemented for RD by the *Remedial Design/Remedial Action Handbook*, EPA 540/R-95/059 (June 1995).
- (c) Following completion of the TS, SDs shall submit a TS Evaluation Report for EPA comment.
- (d) EPA may require SDs to supplement the TS Evaluation Report and/or to perform additional treatability studies.

3.5 Preliminary (30%) RD. SDs shall submit a Preliminary (30%) RD for EPA's comment for each RA project described in Paragraph 1.4 above. 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) Preliminary drawings and specifications;
- (c) Descriptions of permit requirements, if applicable;
- (d) Preliminary Operation and Maintenance (O&M) Plan and O&M Manual;
- (e) A description of how the RA will be implemented in a manner that minimizes environmental impacts in accordance with EPA's *Principles for Greener Cleanups* (Aug. 2009);
- (f) A description of monitoring and control measures to protect human health and the environment, such as air monitoring and dust suppression, during the RA;
- (g) Any proposed revisions to the RA Schedule that is set forth in ¶ 7.3 (RA Schedule); and
- (h) Updates of all supporting deliverables required to accompany the RDWP and, as appropriate, the following additional supporting deliverables described in ¶ 6.7

(Supporting Deliverables): Site Wide Monitoring Plan; Construction Quality Assurance/Quality Control Plan; Transportation and Off-Site Disposal Plan; O&M Plan; and O&M Manual.

The Institutional Controls Implementation and Assurance Plan (ICIAP) deliverable shall be submitted with the 30% RD for the RA project consisting of containment of Holding Basin stabilized soils.

- 3.6 Intermediate (60%) RD.** SDs shall submit the Intermediate (60%) RD for EPA's comment for each of the four (4) RA projects. The Intermediate RD must: (a) be a continuation and expansion of the Preliminary RD; (b) address EPA's comments regarding the Preliminary RD; and (c) include the same elements as are required for the Preliminary (30%) RD. Following EPA's review of the 30% RD, SDs may propose to EPA to bypass the 60% RD and move directly to the 95% RD.
- 3.7 Pre-final (95%) RD.** SDs shall submit the Pre-final (95%) RD for EPA's comment for each of the four (4) RA projects. The Pre-final RD must be a continuation and expansion of the previous design submittal and must address EPA's comments regarding the Intermediate RD (or the Preliminary RD in the event SDs request and EPA approves bypassing the Intermediary 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. If proceeding as a design/build, sufficiently detailed drawings and performance specifications to demonstrate to EPA the adequacy of the design.
 - (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/Intermediate RD;
 - (d) A specification for photographic documentation of the RA; and
 - (e) Updates, as necessary, of all supporting deliverables required to accompany the Preliminary (30%) RD.

The 95% Institutional Controls Implementation and Assurance Plan (ICIAP) deliverable shall be submitted with the 95% RD for the RA project consisting of containment of Holding Basin stabilized soils.

- 3.8 Final (100%) RD.** SDs shall submit the Final (100%) RD for EPA approval for each of the four (4) RA projects. The Final RD must address EPA's comments on the Pre-final RD and must include final versions of all Pre-final RD deliverables. The 100% Institutional Controls Implementation and Assurance Plan (ICIAP) deliverable shall be

submitted with the 100% RD for the RA project consisting of containment of Holding Basin stabilized soils.

4. REMEDIAL ACTION

4.1 RA Work Plan. SDs shall submit a RA Work Plan (RAWP) for EPA approval for each of the four (4) RA projects that includes:

- (a) A proposed RA Construction Schedule that uses a critical path method;
- (b) An updated health and safety plan that covers activities during the RA; and
- (c) Plans for satisfying substantive requirements of permits for on-site activity.

4.2 Meetings and Inspections

- (a) **Preconstruction Conference.** SDs shall hold a preconstruction conference with EPA and others as directed or approved by EPA and as described in the *Remedial Design/Remedial Action Handbook*, EPA 540/R-95/059 (June 1995). SDs shall prepare minutes of the conference and shall distribute the minutes to all Parties.
- (b) **Periodic Meetings.** During the construction portion of the RA (RA Construction), SDs shall meet weekly with EPA, and others as directed or determined by EPA, to discuss 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 or its representative shall conduct periodic inspections of or have an on-site presence during the Work. At EPA's request, the Project Coordinator or designee shall accompany EPA or its representative during inspections.
 - (2) SDs shall provide on-site office space for EPA personnel to perform their oversight duties. The minimum office requirements are a private office with at least 150 square feet of floor space, an office desk with chair, a file cabinet, and access to facsimile, reproduction, wireless internet, and sanitation facilities.
 - (3) SDs shall provide personal protective equipment needed for EPA personnel and any oversight officials to perform their oversight duties.
 - (4) Upon notification by EPA of any deficiencies in the RA Construction, SDs shall take all necessary steps to correct the deficiencies and/or bring the RA Construction into compliance with 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.

4.3 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 ¶ 4.3(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 ¶ 4.3(a) and ¶ 4.3(b) is the EPA Project Coordinator identified in Paragraph 112 of the CD, the EPA Alternate Project Coordinator (if the EPA Project Coordinator is unavailable), or the EPA Emergency Planning and Response Branch, Region 1 (if neither EPA Project Coordinator is available).
- (d) For any event covered by ¶ 4.3(a) or ¶ 4.3(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 ¶ 4.3 are in addition to the reporting required by CERCLA § 103 or EPCRA § 304.

4.4 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).

- (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.
- (c) SDs may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 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 ROD. Wastes shipped off-Site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 CFR § 261.4(e) shipped off-site for treatability studies, are not subject to 40 C.F.R. § 300.440.

4.5 RA Construction Completion

- (a) Each RA project shall have its own RA Construction Completion milestone and timeline for submission of the RA Report, as described in the table below:

RA Project	RA Construction Completion Milestone	Submission of RA Report
Excavation and off-site disposal of contaminated sediments, underground drain lines and debris, and non-Holding Basin soils.	All wastes that need to be addressed as part of the RA project have been excavated, removed from the Site to approved locations, cleanup levels have been achieved, and the Site has been restored.	Following inspection pursuant to ¶ 4.5(b).

RA Project	RA Construction Completion Milestone	Submission of RA Report
<i>In-situ</i> stabilization of DU in soils and <i>in-situ</i> treatment of DU and natural uranium in groundwater.	Performance standards for soils have been achieved. For groundwater, construction of the remedy and monitoring system are complete, injections of the appropriate reagent are underway, and the remedy is operating as intended.	After inspections pursuant to ¶ 4.5(b) and shakedown period pursuant to ¶ 4.5(c) have been completed.
Containment of Holding Basin stabilized soils with a low-permeability vertical wall and horizontal sub-grade cover.	Containment wall and cover have been constructed, performance standards have been achieved, and the Site has been restored.	Following inspection pursuant to ¶ 4.5(b).
<i>Ex-situ</i> treatment of VOCs and 1,4-dioxane in groundwater.	Construction of the treatment plant and monitoring system are complete, and the systems are operating as intended.	Following the end of the shakedown period pursuant to ¶ 4.5(c).

- (b) **Inspection of Constructed RA projects.** SDs shall schedule an inspection to review the construction and/or operation of each RA project, as each RA project reaches its RA Construction Completion milestone in the table above. The inspection must be attended by SDs and EPA and/or their representatives. A re-inspection must be conducted if requested by EPA.
- (c) **Shakedown Period for the Extraction and *Ex-situ* Treatment System and *In-situ* Groundwater Treatment.** For the *ex-situ* treatment system, following inspection, there shall be a shakedown period of up to one year for EPA to review whether the extraction and *ex-situ* treatment system is functioning properly and performing as designed. For the *in-situ* groundwater treatment system, following inspection, there shall be a shakedown period of up to one year for EPA to review whether the *in-situ* groundwater treatment system is functioning properly and performing as designed. SDs shall provide such information as EPA requests for such reviews.
- (d) **RA Report.** According to the timeline described in Paragraph 4.5(a), SDs shall submit an “RA Report” requesting EPA’s determination that the RA project

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).

- (e) If EPA determines that the RA project construction is not complete, EPA shall so notify SDs in writing. EPA's notice must include a description of, and schedule for, the activities that SDs must perform to complete the RA project 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.
- (f) If EPA determines, based on the initial or any subsequent RA Report, that the RA project construction is complete, EPA shall so notify SDs in writing.

4.6 Certification of RA Completion

- (a) **Monitoring Report.** SDs shall submit a Monitoring Report to EPA requesting EPA's Certification of RA Completion. The report must: (1) include certifications by a registered professional engineer and by SDs' Project Coordinator that the RA is complete; (2) be prepared in accordance with Chapter 2 (Remedial Action Completion) of EPA's *Close Out Procedures for NPL Sites* guidance (May 2011); (3) contain monitoring data to demonstrate that Performance Standards have been achieved; and (4) be certified in accordance with ¶ 6.5 (Certification).
- (b) If EPA concludes that the RA is not complete, EPA shall so notify SDs in writing. 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.
- (c) If EPA concludes, based on the initial or any subsequent Monitoring Report requesting Certification of RA Completion, that the RA is complete, EPA shall so certify in writing to SDs. This certification will constitute the Certification of RA Completion for purposes of the CD, including Section XVI of the CD (Covenants by Plaintiff). Certification of RA Completion will not affect SDs' remaining obligations under the CD.

4.7 Periodic Review Support Plan (PRSP). SDs shall submit the PRSP for EPA approval. The PRSP 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”). SDs 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 guidances.

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 Monitoring Report submitted under ¶ 4.6(a) includes all elements required under this ¶ 4.8(b), then the Monitoring 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 in writing. 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), XX (Retention of Records), and XIX (Access to Information) of the CD; (3) Institutional Controls obligations as provided in the CD and/or ICIAP; and (4) reimbursement of EPA’s Future Response Costs under Section X (Payments for Work and Response Costs) of the CD.

5. REPORTING

5.1 Progress Reports. Commencing with the first month following entry of the CD and until three (3) years after EPA approves RA Construction Completion for the last RA project, SDs shall submit progress reports to EPA on a monthly basis, or on a different schedule as may be requested by SDs and approved by EPA. The reports must cover all activities 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.

5.3 Progress Reports Following RA Construction Completion. Following the three (3) year period after EPA approval of the last RA Report, SDs shall submit progress reports on a quarterly basis. The reports shall cover specific activities as those required in ¶ 5.1(a) through (h) for the previous quarter and activities expected for the next quarter. In lieu of submitting a quarterly progress report for the fourth quarter, an Annual State of Compliance Report shall be submitted. See ¶ 5.4 below.

5.4 Annual State of Compliance Reports. Following the three (3) year period after approval of the RA Report for the last of the four (4) RA projects, the Settling Defendants shall submit to EPA for approval or modification an Annual State of Compliance Report. Such Annual Report shall serve as the progress report required by ¶ 5.3 for the immediately prior quarter. This report shall cover the prior annual reporting period and include a comprehensive evaluation of all monitoring required by this SOW, including, but not limited to, compliance with the performance standards for the Institutional Controls, operation and maintenance, and site wide monitoring program. These reports shall also include an assessment of the progress being made towards achieving the Performance Standards, as well as recommendations for changes to any monitoring program to address deficiencies identified during the evaluation. SDs may also propose reductions in monitoring, or frequency of reporting along with justifications. Each Annual State of Compliance Report shall include a proposed schedule for submission of any work plans or other activities needed to implement the recommendations in each report.

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 ¶ 112 of the CD, all deliverables under this SOW must be in writing unless otherwise specified.
- 6.3 General Requirements for Deliverables.** 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. Technical specifications for sampling and monitoring data and spatial data are addressed in ¶ 6.4. All other deliverables shall be submitted to EPA in the electronic form specified by the EPA Project Coordinator. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5" by 11", SDs shall also provide EPA with paper copies of such exhibits.
- 6.4 Technical Specifications**
- (a) 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.
 - (b) Spatial data, including spatially-referenced data and geospatial data, should be submitted: (1) in the ESRI File Geodatabase; 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 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.

6.6 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 14 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 XV (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. 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 ¶ 4.3(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 12 (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) 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) augments the FSP and 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 treatability, 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 through 900C (Mar. 2005). The QAPP also must include procedures:
- (1) To ensure that EPA and its authorized representative 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 QA/QC program acceptable to EPA;
 - (5) For SDs to provide EPA with notice at least 21 days prior to any sample collection activity;
 - (6) For SDs to provide split samples and/or duplicate samples to EPA upon request;
 - (7) For EPA to take any additional samples that it deems necessary;

- (8) For EPA to provide to SDs, upon request, split samples and/or duplicate samples in connection with EPA's oversight sampling; and
 - (9) For SDs to submit to EPA all sampling and tests results and other data in connection with the implementation of the Work.
- (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 Performance Standards (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 or groundwater contaminant plume movement).
- (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 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 ¶ 4.4 (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, including all components designed or constructed during the GW NTCRA. 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) 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, quarterly, 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. 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 the Institutional Controls (ICs) including Notices of Activity and Use Limitation (NAULs) 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), *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), and provisions of the Massachusetts Contingency Plan, 310 CMR 40.0000, including without limitation, 310 CMR 40.1070 and 40.1074.

Preliminary (30%) RD. The initial draft of the ICIAP submitted with the Preliminary (30%) RD for the Holding Basin RA project must include the following:

- (1) Locations of recorded real property interests (e.g., easements, liens) and resource interests in the Affected 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.

Intermediate (60%) RD or Pre-Final (95%) RD. The revised ICIAP submitted with the Intermediate (60%) RD or Pre-Final (95%) RD in the event EPA approves a request to bypass the Intermediate (60%) RD, for the Holding Basin RA project shall include the following:

- (1) **Record Title Evidence.** A title report and certification by an insured title examiner or other title evidence acceptable to EPA that: (i) covers the Affected Property that is to be noticed; (ii) demonstrates that the person or entity that will execute the NAUL is the owner of such Affected Property; (iii) identifies all record matters that affect title to the Affected Property, including all prior liens, claims, rights (such as leases, easements, mortgages, and other encumbrances (collectively, “Prior Encumbrances”)); and (iv) includes a summary of and complete, legible copies of such Prior Encumbrances; and
- (2) **Non-Record Title Evidence.** A report of the results of an investigation, including a physical inspection of the Affected Property, which identifies non-record matters that could affect the title, such as unrecorded leases or encroachments.

Final (100%) RD. The revised ICIAP submitted with the Final (100%) RD for the Holding Basin RA project shall include the following:

- (1) **Draft NAULs.** All draft NAULs (including copies of all referenced survey plans), draft IC Design Statements, draft notice letters to current holders of any record interest in accordance with 310 CMR 40.1074(1)(d), documentation verifying that the signatory to the NAUL has the authority to sign such document (if the signatory is not an individual), and any other documentation or evidence required by the applicable provisions of 310 CMR 40.1070 and 40.1074; and
- (2) Schedule for recording final NAULs. Such schedule will acknowledge that the NAUL for the 2229 Main Street property will not be finalized until the “as built” records are completed for the project consisting of the containment of Holding Basin stabilized soils.

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 for Each RA Project

	Description of Deliverable, Task	¶ Ref.	Deadline
1	RDWP (one RDWP for entire remedy)	3.1	60 days after the later of (a) EPA's Authorization to Proceed regarding Supervising Contractor under CD ¶ 9.c. or (b) the first payment to the RD/RA Trust made under ¶¶ 32.b., 33.a., or 37.
2	PDIWP	3.3(a)	60 days after the later of (a) EPA's Authorization to Proceed regarding Supervising Contractor under CD ¶ 9.c. or (b) the first payment to the RD/RA Trust made under ¶¶ 32.b., 33.a., or 37.
3	TSWP	3.4(b)	60 days after the later of (a) EPA's Authorization to Proceed regarding Supervising Contractor under CD ¶ 9.c. or (b) the first payment to the RD/RA Trust made under ¶¶ 32.b., 33.a., or 37.
4	Preliminary (30%) RD	3.5, 3.3(b), 3.4(c)	90 days after EPA approves both the PDI Evaluation Report and, if needed, the TS Evaluation Report
5	Intermediate (60%) RD	3.6	60 days after EPA comments on Preliminary (30%) RD
6	Pre-final (90/95%) RD	3.7	60 days after EPA comments on Intermediate (60%) RD (or Preliminary (30%) RD in the event EPA approves a request to bypass the Intermediate (60%) RD)
7	Final (100%) RD	3.8	14 days after EPA comments on Pre-final (95%) RD

7.3 RA Schedule for Each RA Project

	Description of Deliverable / Task	¶ Ref.	Deadline
1	Award RA contract		45 days after EPA Notice of Authorization to Proceed with RA
2	RAWP	4.1	90 days after EPA Notice of Authorization to Proceed with RA
3	Preconstruction Conference	4.2(a)	10 days after Approval of RAWP
4	Start of Construction		30 days after Approval of RAWP
5	Inspection of Constructed Remedy	4.5(b)	30 days after end of construction
6	RA Report	4.5(d)	45 days after end of shakedown period
7	RA Report	4.5(b)	45 days after EPA inspection
8	Monitoring Report	4.6(a)	Upon SDs request for Certification of RA Completion
9	Work Completion Report	4.8(b)	30 days after Work Completion Inspection
10	Periodic Review Support Plan	4.7	180 days after Approval of the first RAWP

Implementation of Institutional Controls shall be completed within 90 days of the inspection of the last RA project.

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 ¶ 4.5 (RA Construction Completion), any disapproval of, or Certification of RA Completion under ¶ 4.6 (Certification of RA Completion), and any disapproval of, or Certification of Work Completion under ¶ 4.8 (Certification of Work Completion).

8.3 Notices of Activity and Use Limitation. The State shall approve the form of each Notice and Activity Limitation to be implemented pursuant to the Institutional Controls Implementation and Assurance Plan.

9. REFERENCES

- 9.1** 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 ¶ 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) EPA Guidance for Data Quality Assessment, Practical Methods for Data Analysis, QA/G-9, EPA/600/R-96/084 (July 2000).
 - (n) Operation and Maintenance in the Superfund Program, OSWER 9200.1-37FS, EPA/540/F-01/004 (May 2001).

- (o) Comprehensive Five-year Review Guidance, OSWER 9355.7-03B-P, 540-R-01-007 (June 2001).
- (p) Guidance for Quality Assurance Project Plans, QA/G-5, EPA/240/R-02/009 (Dec. 2002).
- (q) Institutional Controls: Third Party Beneficiary Rights in Proprietary Controls (Apr. 2004).
- (r) Quality management systems for environmental information and technology programs -- Requirements with guidance for use, ASQ/ANSI E4:2014 (American Society for Quality, February 2014).
- (s) Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A through 900C (Mar. 2005).
- (t) Superfund Community Involvement Handbook, EPA/540/K-05/003 (Apr. 2005).
- (u) EPA Guidance on Systematic Planning Using the Data Quality Objectives Process, QA/G-4, EPA/240/B-06/001 (Feb. 2006).
- (v) EPA Requirements for Quality Assurance Project Plans, QA/R-5, EPA/240/B-01/003 (Mar. 2001, reissued May 2006).
- (w) EPA Requirements for Quality Management Plans, QA/R-2, EPA/240/B-01/002 (Mar. 2001, reissued May 2006).
- (x) USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, ILM05.4 (Dec. 2006).
- (y) USEPA Contract Laboratory Program Statement of Work for Organic Analysis, SOM01.2 (amended Apr. 2007).
- (z) 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.
- (aa) Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration, OSWER 9283.1-33 (June 2009).
- (bb) Principles for Greener Cleanups (Aug. 2009), available at <http://www.epa.gov/oswer/greenercleanups/>.
- (cc) USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration), ISM01.2 (Jan. 2010).
- (dd) Close Out Procedures for National Priorities List Sites, OSWER 9320.2-22 (May 2011).

- (ee) Groundwater Road Map: Recommended Process for Restoring Contaminated Groundwater at Superfund Sites, OSWER 9283.1-34 (July 2011).
- (ff) Recommended Evaluation of Institutional Controls: Supplement to the “Comprehensive Five-Year Review Guidance,” OSWER 9355.7-18 (Sep. 2011).
- (gg) Construction Specifications Institute’s MasterFormat 2012, available from the Construction Specifications Institute, www.csinet.org/masterformat.
- (hh) Updated Superfund Response and Settlement Approach for Sites Using the Superfund Alternative Approach , OSWER 9200.2-125 (Sep. 2012)
- (ii) 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).
- (jj) 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).
- (kk) EPA’s Emergency Responder Health and Safety Manual, OSWER 9285.3-12 (July 2005 and updates), <http://www.epaosc.org/HealthSafetyManual/manual-index.htm>.
- (ll) Broader Application of Remedial Design and Remedial Action Pilot Project Lessons Learned, OSWER 9200.2-129 (Feb. 2013).
- (mm) Guidance for Evaluating Completion of Groundwater Restoration Remedial Actions, OSWER 9355.0-129 (Nov. 2013).
- (nn) Groundwater Remedy Completion Strategy: Moving Forward with the End in Mind, OSWER 9200.2-144 (May 2014).

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.