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1 **I. JURISDICTION AND GENERAL PROVISIONS**

2 1. This Administrative Settlement Agreement and Order on Consent (Settlement
3 Agreement) is entered into voluntarily by the United States Environmental Protection Agency,
4 Region X (EPA), and by the City of Seattle (City) and the Port of Seattle (Port), the City and
5 Port as Respondents. This Settlement Agreement provides for the performance of a non-time-
6 critical removal action (NTCRA) by Respondents and the reimbursement of certain response
7 costs incurred by the United States at or in connection with such action for the Port Terminal-117
8 Early Action Area (T-117 EAA) of the Lower Duwamish Waterway (LDW) Superfund Site (Site
9 or LDW Site) in Seattle, Washington.

10 2. This Settlement Agreement is issued under the authority vested in the President of
11 the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental
12 Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and
13 9622, as amended (CERCLA).

14 3. EPA has notified the State of Washington Department of Ecology (State or
15 Ecology) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). Ecology is
16 co-managing and overseeing cleanup of the LDW Site jointly with EPA, and is providing
17 support for the implementation of this NTCRA at the T-117 EAA.

18 4. EPA and Respondents recognize that this Settlement Agreement has been
19 negotiated in good faith and that the actions undertaken by Respondents in accordance with this
20 Settlement Agreement do not constitute admissions of any liability. Respondents do not admit,
21 and retain the right to controvert in any subsequent proceedings other than proceedings to
22 implement or enforce this Settlement Agreement, the validity of the findings of fact, conclusions
23 of law, and determinations in Sections IV and V of this Settlement Agreement. Respondents
24 agree to comply with and be bound by the terms of this Settlement Agreement and further agree
25 that they will not contest the basis or validity of this Settlement Agreement or its terms.
26 Respondents agree to undertake all actions required by this Settlement Agreement, including any

1 modifications thereto, and consent to and will not contest EPA’s authority to issue or to enforce
2 this Settlement Agreement. Except as expressly provided in this Settlement Agreement, all
3 parties reserve all rights and defenses they may have.

4 **II. PARTIES BOUND**

5 5. This Settlement Agreement applies to and is binding upon EPA and upon
6 Respondents and their successors and assigns. Any change in governmental status of a
7 Respondent including, but not limited to, any transfer of assets or real or personal property shall
8 not alter such Respondent’s responsibilities under this Settlement Agreement.

9 6. Respondents are jointly and severally liable for carrying out all activities required
10 by this Settlement Agreement. In the event of the insolvency or inability of one Respondent to
11 implement the requirements of this Settlement Agreement, the remaining Respondent shall
12 complete all such requirements. Respondents shall ensure that their contractors, subcontractors,
13 and representatives receive a copy of this Settlement Agreement within 14 days from the
14 Effective Date or within 14 days of their contract to work on the project, and that they comply
15 with this Settlement Agreement. Respondents shall be responsible for any noncompliance with
16 this Settlement Agreement, except as set forth in Section XVIII (Stipulated Penalties).

17 **III. DEFINITIONS**

18 7. Unless otherwise expressly provided herein, terms used in this Settlement
19 Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall
20 have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed
21 below are used in this Settlement Agreement or in the appendices attached hereto and
22 incorporated hereunder, the following definitions shall apply:

23 a. “CERCLA” shall mean the Comprehensive Environmental Response,
24 Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

1 b. “Day” shall mean a calendar day. In computing any period of time under
2 this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or Federal
3 holiday, the period shall run until the close of business of the next working day.

4 c. “Effective Date” shall be the effective date of this Settlement Agreement
5 as provided in Section XXX.

6 d. “Engineering Evaluation/Cost Analysis” (EE/CA) shall have the definition
7 and attributes described in the NCP, as may be modified by this Settlement Agreement.

8 e. “EPA” shall mean the United States Environmental Protection Agency
9 and any successor departments or agencies of the United States.

10 f. “Ecology” or “State” shall mean the State of Washington Department of
11 Ecology and any successor departments or agencies thereof.

12 g. “Future Response Costs” shall mean all costs, including, but not limited
13 to, direct and indirect costs, that the United States has incurred in planning, developing and
14 negotiating this Settlement Agreement, in reviewing or developing plans, reports and other items
15 pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing,
16 overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs,
17 contractor costs, travel costs, laboratory costs, costs incurred by EPA associated with EPA’s
18 preparation of any EPA decision documents (including any Action Memoranda), the costs
19 incurred pursuant to Paragraph 23 (costs and attorneys fees and any monies paid to secure
20 access, including the amount of just compensation), Paragraph 33 (emergency response), and
21 Paragraph 59 (work takeover), as well as any other activities related to the T-117 Early Action
22 Area undertaken by EPA and/or Ecology at Respondents’ request.

23 h. “Interest” shall mean interest at the rate specified for interest on
24 investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507,
25 compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The
26

1 applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of
2 interest is subject to change on October 1 of each year.

3 i. “National Contingency Plan” or “NCP” shall mean the National Oil and
4 Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of
5 CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

6 j. “Paragraph” shall mean a portion of this Settlement Agreement identified
7 by an Arabic numeral.

8 k. “Parties” shall mean EPA and Respondents.

9 l. “RCRA” shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C.
10 §§ 6901, *et seq.* (also known as the Resource Conservation and Recovery Act).

11 m. “Section” shall mean a portion of this Settlement Agreement identified by
12 a Roman numeral.

13 n. “Settlement Agreement” shall mean this Administrative Settlement
14 Agreement and Order on Consent and all appendices attached hereto (listed in Section XXIX).
15 In the event of conflict between this Settlement Agreement and any appendix, this Settlement
16 Agreement shall control.

17 o. “Statement of Work” or “SOW” shall mean the statement of work for
18 implementation of the removal action, as set forth in Appendix A to this Settlement Agreement,
19 and any modifications made thereto in accordance with this Settlement Agreement.

20 p. “Waste Material” shall mean 1) any “hazardous substance” under Section
21 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section
22 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any “solid waste” under Section 1004(27) of
23 RCRA, 42 U.S.C. § 6903(27); and 4) any “dangerous waste” under RCW 70.95E.010(1).

24 q. “Work” shall mean all activities Respondents are required to perform
25 under this Settlement Agreement.

26

1 **IV. FINDINGS OF FACT**

2 8. EPA finds the following facts which Respondents neither admit nor deny:

3 a. The Lower Duwamish Waterway (LDW) Superfund Site consists of an
4 approximately 5.5- mile engineered waterway, formerly the northern portion of the Duwamish
5 River which flows into Seattle, Washington (see Figure 1), and sources thereto comprising the
6 areal extent of contamination. EPA and the Washington State Department of Ecology (Ecology)
7 jointly issued an Administrative Order on Consent pursuant to CERCLA and the state Model
8 Toxics Control Act (MTCA) for a remedial investigation and feasibility study (RI/FS) for the
9 LDW Site on December 21, 2000 to The Boeing Company (Boeing), City, Port and King
10 County. A Record of Decision (ROD) selecting remedial action for the LDW Site is anticipated
11 within the next few years. EPA and Ecology also agreed for their mutual convenience in a
12 Memorandum of Understanding that EPA will generally be lead agency for in-water portions of
13 the LDW Site and Ecology will generally be lead agency for upland source control, and that the
14 Agencies may alter these lead-support roles at any time for any portions of the LDW Site.

15 b. The LDW has served as Seattle’s major industrial corridor since it was
16 created by the United States Army Corps of Engineers, completed in 1917. Industrial uses of
17 and along the LDW have been extensive since its construction. The LDW is also habitat to
18 numerous fish and other aquatic species, and is a migratory corridor for threatened and other
19 anadromous fish species. Sources of releases to the LDW include but are not limited to,
20 industrial releases, combined sewer overflows and urban run-off. The Muckleshoot Tribe has a
21 treaty-granted fishery in the LDW that is currently limited to salmon which live most of their
22 lives in the open ocean. The Suquamish Tribe’s treaty-granted usual and accustomed fishing
23 area is just north and west of the LDW and includes fish that use the LDW as part of their home
24 range.

25 c. On September 13, 2001, the Site was listed on the National Priorities List
26 pursuant to Section 105 of CERCLA, 42 U.S.C. 9605, at 66 Fed. Reg. 47583.

1 d. The T-117 EAA is one of five EAAs selected during the RI by EPA and
2 Ecology to address sediment hot spots within the LDW, based primarily on concentrations of
3 polychlorinated biphenyls (PCBs). For the T-117 EAA, EPA is the lead agency for both the
4 sediments and adjacent upland source areas with Ecology's support. On December 22, 2005,
5 EPA issued an Administrative Order and Settlement Agreement on Consent (Settlement
6 Agreement), that was Amended in 2007 adding the City of Seattle's Adjacent Streets and Right's
7 of Way, and the Port of Seattle's Upland property, for the performance of an Engineering
8 Evaluation/Cost Analysis (EE/CA) for the T-117 EAA by Respondents subject to EPA oversight.
9 Based on the EE/CA EPA issued an Action Memorandum (Attachment 3 hereto) on September
10 30, 2010, selecting the NTCRA for the T-117 EAA.

11 e. For purposes of this NTCRA, as set forth in the EE/CA and Action
12 Memorandum, the T-117 EAA has been divided into 3 study/action areas; the Sediment Area,
13 the former asphalt manufacturing Upland Area, and the Adjacent Streets and Residential Yards
14 Area. The Upland Area, located at 8700 Dallas Avenue South, Seattle, Washington, was
15 purchased by the Port in 2000 following six decades of asphalt product production, particularly
16 roofing shingles, by two successive now defunct owner/operator small businesses. In the 1970s,
17 the City supplied the owner/operator at the time with inexpensive used fuel oil. Much of this
18 fuel oil came from City electrical utility equipment and contained PCBs. The City's Adjacent
19 Streets, Rights of Way and Residential Yards action area is located east of 14th Avenue S and
20 bounded by Dallas Avenue S and S Donovan Street.

21 f. Two Time Critical Removal Actions (TCRAs) were performed in 1999
22 and 2006 by the Port with EPA oversight to remove the highest concentrations of PCBs from the
23 Upland Area. Independent cleanup actions were also implemented by the City, with no formal
24 EPA or Ecology oversight, for isolated soil removal in rights of way and residential yards, and to
25 install temporary capping and provide storm water collection in the Adjacent Streets and
26 Residential Yards Area. The EE/CA and attached Action Memorandum fully outline what these

1 actions achieved, the residual contamination at the T-117 EAA, and how it will be addressed by
2 this NTCRA.

3 g. The Port of Seattle is a Washington Port District, duly created under RCW
4 Chap. 53. The Port is the successor to Commercial Waterway District #1, which acquired the
5 Waterway properties and created the Waterway in 1912 - 1917. The City of Seattle is the largest
6 municipality in the state of Washington.

7 h. Respondents have been cooperating in the performance of the necessary
8 response actions to date with respect to the T-117 EAA.

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

10 9. Based on the Findings of Fact set forth above EPA has determined that:

11 a. The T-117 EAA is a “facility” as defined by Section 101(9) of CERCLA,
12 42 U.S.C. § 9601(9).

13 b. The contamination found at the T-117 EAA, as identified in the Findings
14 of Fact above, includes “hazardous substances” as defined by Section 101(14) of CERCLA, 42
15 U.S.C. § 9601(14), and/or pollutants or contaminants which may present an imminent and
16 substantial danger to the public health or welfare.

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

19 d. Each Respondent is a responsible party under Section 107(a) of CERCLA,
20 42 U.S.C. § 9607(a), and is jointly and severally liable for performance of response action and
21 for response costs incurred and to be incurred at the T-117 EAA. Respondents are the “owners”
22 and/or “operators” of a portion of the facility, as defined by Section 101(20) of CERCLA, 42
23 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. §
24 9607(a)(1); and/or arranged for disposal or treatment, or arranged with a transporter for transport
25 for disposal or treatment of hazardous substances at the facility, within the meaning of Section
26 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

1 e. The conditions described in the Findings of Fact above constitute an actual
2 or threatened “release” of a hazardous substance from the facility as defined by Section 101(22)
3 of CERCLA, 42 U.S.C. § 9601(22).

4 f. The removal action required by this Settlement Agreement is necessary to
5 protect the public health, welfare, or the environment and, if carried out in compliance with the
6 terms of this Settlement Agreement, will be considered consistent with the NCP, as provided in
7 Section 300.700(c)(3)(ii) of the NCP.

8 g. The Port of Seattle is a Washington Port District, duly created under RCW
9 Chap. 53. The Port is the successor to Commercial Waterway District #1, which acquired the
10 Waterway properties and created the Waterway in 1912 - 1917. The City of Seattle is the largest
11 municipality in the state of Washington.

12 h. Respondents have been cooperating in the performance of the necessary
13 response actions to date with respect to the T-117 EAA.

14 **VI. SETTLEMENT AGREEMENT AND ORDER**

15 Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the
16 Administrative Record for the Site and the T-117 EAA, it is hereby Ordered and Agreed that
17 Respondents shall comply with all provisions of this Settlement Agreement, including, but not
18 limited to, all attachments to this Settlement Agreement and all documents incorporated by
19 reference into this Settlement Agreement.

20 **VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR**

21 10. Respondents shall retain one or more contractors to perform the Work and shall
22 notify EPA of the name(s) and qualifications of such contractor(s) within 10 days of the
23 Effective Date. Respondents shall also notify EPA in writing of the name(s) and qualification(s)
24 of any other contractor(s) or subcontractor(s) retained to perform the Work at least 7 days prior
25 to commencement of such Work. EPA retains the right to disapprove of any or all of the
26 contractors and/or subcontractors retained by Respondents. If EPA disapproves of a selected

1 contractor in writing, Respondents shall retain a different contractor and shall notify EPA of that
2 contractor's name and qualifications within 30 days of EPA's disapproval.

3 11. Within 7 days after the Effective Date, Respondents shall each designate a Project
4 Coordinator who shall be responsible for administration of all actions by such Respondent
5 required by this Settlement Agreement and shall submit each designated Project Coordinator's
6 name, address, telephone number, and qualifications to EPA. To the greatest extent possible,
7 each Project Coordinator shall be present or readily available during field Work on their
8 principal's Area(s) of the T-117 EAA. EPA retains the right to disapprove of a designated
9 Project Coordinator. If EPA disapproves of either Respondent's designated Project Coordinator,
10 such Respondent shall retain a different Project Coordinator and shall notify EPA of that
11 person's name, address, telephone number, and qualifications within 7 days following EPA's
12 disapproval. Receipt by a Respondent's Project Coordinator of any notice or communication
13 from EPA relating to this Settlement Agreement shall constitute receipt by that Respondent.
14 Within 7 days after the selection of Project Coordinators, each Respondent shall submit a written
15 plan and accompanying schedule to EPA setting forth how, including all bidding processes for
16 necessary personnel and equipment, each Respondent will implement the Work required by this
17 Settlement Agreement.

18 12. EPA has designated Piper Peterson of the Office of Environmental Cleanup
19 (ECL), Region X, as its Project Coordinator. Except as otherwise provided in this Settlement
20 Agreement, Respondents shall direct all submissions required by this Settlement Agreement to
21 the EPA Project Coordinator at 1200 Sixth Avenue, Suite 900, M/S ECL-111, Seattle, WA
22 98101.

23 13. EPA and Respondents shall have the right, subject to Paragraph 11, to change
24 their respective designated Project Coordinator. Respondents shall notify EPA 7 days before any
25 such change is made. The initial notification may be made orally, but shall be promptly followed
26 by a written notice.

1 **VIII. WORK TO BE PERFORMED**

2 14. Respondents shall perform, at a minimum, all actions necessary to implement the
3 Statement of Work (SOW), which is attached as Appendix A.

4 15. The actions to be implemented generally include, but are not limited to, the
5 implementation of the Action Memorandum for T-117 EAA dated September 30, 2010, as set
6 forth in the SOW.

7 16. EPA removal action guidance, and any additional relevant guidance, shall be
8 followed in implementing the SOW.

9 17. The primary objective of this removal action is to significantly reduce the
10 potential risk to human health and the environment resulting from potential exposure to
11 contaminants present at the T-117 EAA.

12 18. For all Work, EPA may approve, disapprove, require revisions to, or modify a
13 deliverable in whole or in part. If EPA requires revisions, Respondents shall submit a revised
14 deliverable within 10 days of receipt of EPA's notification of the required revisions, unless
15 otherwise noted in the SOW. Respondents shall implement the Work as approved in writing by
16 EPA in accordance with the schedule approved by EPA. Once approved, or approved with
17 modifications, the Work and the schedule, and any subsequent modifications, shall be
18 incorporated into and become fully enforceable under this Settlement Agreement.

19 19. Respondents shall not commence any Work except in conformance with the terms
20 of this Settlement Agreement. Respondents shall not commence implementation of the Work
21 developed hereunder until after receiving written EPA approval pursuant to this Section.

22 20. Reporting.

23 a. Respondents shall each submit a written progress report to EPA
24 concerning their own actions undertaken pursuant to this Settlement Agreement every 30th day
25 after the Effective Date until termination of this Settlement Agreement, unless otherwise directed
26 in writing by the EPA Project Coordinator. These reports shall describe all significant

1 developments during the preceding period, including the actions performed and any problems
2 encountered, a statement of the percent of the project completed to date, analytical data received
3 during the reporting period, and the developments anticipated during the next reporting period,
4 including a schedule of actions to be performed, anticipated problems, and planned resolutions of
5 past or anticipated problems.

6 b. At least 30 days prior to the conveyance of any interest in real property at
7 the T-117 EAA owned or controlled by Respondents, Respondents shall give written notice to
8 the transferee that the property is subject to this Settlement Agreement and written notice to EPA
9 and Ecology of the proposed conveyance, including the name and address of the transferee.
10 Respondents also agree to require that their successor(s), if any, comply with the immediately
11 preceding sentence and Sections IX (Site Access) and X (Access to Information).

12 21. Off-Site Shipments.

13 a. Respondents shall, prior to any off-site shipment of Waste Material from
14 the T-117 EAA to an out-of-state waste management facility, provide written notification of such
15 shipment of Waste Material to the appropriate state environmental official in the receiving
16 facility's state and to the EPA Project Coordinator. However, this notification requirement shall
17 not apply to any off-site shipments when the total volume of all such shipments will not exceed
18 10 cubic yards.

19 i. Respondents shall include in the written notification the following
20 information: 1) the name and location of the facility to which the Waste Material is to be
21 shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule
22 for the shipment of the Waste Material; and 4) the method of transportation. Respondents shall
23 notify the state in which the planned receiving facility is located of major changes in the
24 shipment plan, such as a decision to ship the Waste Material to another facility within the same
25 state, or to a facility in another state.

26

1 purposes of this Paragraph, “best efforts” includes the payment of reasonable sums of money in
2 consideration of access. Respondents shall describe in writing their efforts to obtain access.
3 EPA may then assist Respondents in gaining access, to the extent necessary to effectuate the
4 response actions described herein, using such means as EPA deems appropriate. Respondents
5 shall reimburse EPA for all costs and attorney’s fees incurred by the United States in obtaining
6 such access, in accordance with the procedures in Section XV (Payment of Response Costs).

7 24. Notwithstanding any provision of this Settlement Agreement, EPA retains all of
8 its access authorities and rights, as well as all of its rights to require land/water use restrictions,
9 including enforcement authorities related thereto, under CERCLA, RCRA, and any other
10 applicable statutes or regulations.

11 X. ACCESS TO INFORMATION

12 25. Respondents shall provide copies to EPA, upon request, of all documents and
13 information within their possession or control or that of their contractors or agents relating to
14 activities at the T-117 EAA or to the implementation of this Settlement Agreement, including,
15 but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs,
16 receipts, reports, sample traffic routing, correspondence, or other documents or information
17 related to the Work. Respondents shall also make available to EPA, for purposes of
18 investigation, information gathering, or testimony, their employees, agents, or representatives
19 with knowledge of relevant facts concerning the performance of the Work.

20 26. Respondents may assert business confidentiality claims covering part or all of the
21 documents or information submitted to EPA under this Settlement Agreement, specifically
22 including contractor costs and documentation thereof, but specifically excluding deliverables
23 required by the attached SOW on which EPA may rely in addressing the T-117 EAA or the Site,
24 to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C.
25 § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential
26 by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of

1 confidentiality accompanies documents or information when they are submitted to EPA, or if
2 EPA has notified Respondents that the documents or information are not confidential under the
3 standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be
4 given access to such documents or information without further notice to Respondents.

5 27. Respondents may assert that certain documents, records and other information are
6 privileged under the attorney-client privilege or any other privilege recognized by federal law. If
7 Respondents assert such a privilege in lieu of providing documents, they shall provide EPA with
8 the following: 1) the title of the document, record, or information; 2) the date of the document,
9 record, or information; 3) the name and title of the author of the document, record, or
10 information; 4) the name and title of each addressee and recipient; 5) a description of the
11 contents of the document, record, or information; and 6) the privilege asserted by Respondents.
12 However, no documents, reports or other information created or generated pursuant to the
13 requirements of this Settlement Agreement shall be withheld on the grounds that they are
14 privileged.

15 28. No claim of confidentiality shall be made with respect to any data submitted or to
16 be considered by EPA with respect to the T-117 EAA or the Site, including, but not limited to,
17 all sampling, analytical, monitoring, hydro-geologic, scientific, chemical, or engineering data, or
18 any other documents or information evidencing conditions at or around the T-117 EAA.

19 **XI. RECORD RETENTION**

20 29. Until 10 years after Respondents' receipt of EPA's notification pursuant to
21 Section XXVIII (Notice of Completion of Work), each Respondent shall preserve and retain all
22 non-identical copies of records and documents (including records or documents in electronic
23 form) now in its possession or control or which come into its possession or control that relate in
24 any manner to the performance of the Work or the liability of any person under CERCLA with
25 respect to the T-117 EAA, regardless of any corporate retention policy to the contrary. Until 10
26 years after Respondents' receipt of EPA's notification pursuant to Section XXVIII (Notice of

1 Completion of Work), Respondents shall also instruct their contractors and agents to preserve all
2 documents, records, and information of whatever kind, nature or description relating to
3 performance of the Work.

4 30. At the conclusion of this document retention period, Respondents shall notify
5 EPA and Ecology at least 90 days prior to the destruction of any such records or documents, and,
6 upon request by EPA or Ecology, Respondents shall deliver any such records or documents to
7 EPA or Ecology. Respondents may assert that certain documents, records and other information
8 are privileged under the attorney-client privilege or any other privilege recognized by federal
9 law. If Respondents assert such a privilege, they shall provide EPA or Ecology with the
10 following: 1) the title of the document, record, or information; 2) the date of the document,
11 record, or information; 3) the name and title of the author of the document, record, or
12 information; 4) the name and title of each addressee and recipient; 5) a description of the subject
13 of the document, record, or information; and 6) the privilege asserted by Respondents. However,
14 no documents, reports or other information created or generated pursuant to the requirements of
15 this Settlement Agreement shall be withheld on the grounds that they are privileged.

16 31. Each Respondent hereby certifies individually that to the best of its knowledge
17 and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise
18 disposed of any records, documents or other information (other than identical copies) relating to
19 its potential liability regarding the T-117 EAA since notification of potential liability by EPA or
20 Ecology or the filing of suit against it regarding the T-117 EAA and that it has fully complied
21 with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of
22 CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

23 **XII. COMPLIANCE WITH OTHER LAWS**

24 32. Respondents shall perform all actions required pursuant to this Settlement
25 Agreement in accordance with all applicable local, state, and federal laws and regulations except
26 as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e)

1 and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all actions required pursuant to this
2 Settlement Agreement shall, to the extent practicable, as determined by EPA, considering the
3 exigencies of the situation, attain applicable or relevant and appropriate requirements under
4 federal environmental, tribal environmental, or state environmental or facility siting laws.

5 **XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES**

6 33. In the event of any action or occurrence during performance of the Work which
7 causes or threatens to cause a release of Waste Material from the T-117 EAA that constitutes an
8 emergency situation or may present an immediate threat to public health or welfare or the
9 environment, Respondents shall immediately take all appropriate action. Respondents shall take
10 these actions in accordance with all applicable provisions of this Settlement Agreement, in order
11 to prevent, abate or minimize such release or endangerment caused or threatened by the release.
12 Respondents shall also immediately notify the EPA Project Coordinator or, in the event of
13 his/her unavailability, the Regional Duty Officer, Environmental Cleanup Office, Emergency
14 Response Unit, EPA Region X, 206-553-1263, of the incident or conditions. In the event that
15 Respondents fail to take appropriate response action as required by this Paragraph, and EPA
16 takes such action instead, Respondents shall reimburse EPA all costs of the response action not
17 inconsistent with the NCP pursuant to Section XV (Payment of Response Costs).

18 34. In addition, in the event of any release of a hazardous substance from the T-117
19 EAA, Respondents shall immediately notify the EPA Project Coordinator and the National
20 Response Center at (800) 424-8802. Respondents shall submit a written report to EPA within
21 7 days after each release, setting forth the events that occurred and the measures taken or to be
22 taken to mitigate any release or endangerment caused or threatened by the release and to prevent
23 the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu
24 of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the
25 Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. §§ 11001, *et seq.*

1 **XIV. AUTHORITY OF EPA PROJECT COORDINATOR**

2 35. The EPA Project Coordinator shall be responsible for overseeing Respondents’
3 implementation of this Settlement Agreement. The Project Coordinator shall have the authority
4 vested in an On-Scene Coordinator (OSC) by the NCP, including the authority to halt, conduct,
5 or direct any Work required by this Settlement Agreement, or to direct any other removal action
6 undertaken at the T-117 EAA, as well as the authority of a Remedial Project Manager (RPM) as
7 set forth in the NCP. Absence of the EPA Project Coordinator from the T-117 EAA shall not be
8 cause for stoppage of work unless specifically directed by the EPA Project Coordinator.

9 **XV. PAYMENT OF RESPONSE COSTS**

10 36. Payments for Future Response Costs.

11 a. Respondents shall pay EPA all Future Response Costs not inconsistent
12 with the NCP. On a periodic basis, EPA will send Respondents bills requiring payment that
13 include a SCORPIOS or other regionally prepared cost summary, which includes direct and
14 indirect costs incurred by EPA and its contractors. Respondents shall make all payments within
15 30 days of receipt of each bill requiring payment, as specified herein or as otherwise provided in
16 Paragraph 39 of this Settlement Agreement. EPA will prepare separate Future Response Costs
17 bills pursuant to separate EPA Site/Spill ID numbers for Respondents. Bills for the Sediment
18 and Upland Areas of the T-117 EAA will be sent to and paid by the Port, and bills for the
19 Adjacent Streets and Residential Yards Area will be sent to and paid by the City.

20 b. Respondents payments greater than \$10,000 shall be made to EPA by
21 Electronic Funds Transfer directed to the Federal Reserve Bank of New York as follows:

22 Federal Reserve Bank of New York
23 ABA=02103004
24 Account=68010727
25 33 Liberty Street
26 New York, NY 10045
 Field Tag 4200 of the Fedwire message should read “D68010727
 Environmental Protection Agency (10DA)”

1 Respondents shall make all payments of \$10,000 or less as required by this Paragraph by a
2 certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund,"
3 referencing the name and address of the parties making payment, the Docket Number of this
4 Settlement Agreement, and appropriate EPA Site/Spill ID number 10JW for the Port, or 10JV for
5 the City, and shall be clearly designated as Response Costs: LDW T-117 EAA. Respondents
6 shall send the check(s) to:

7 US Environmental Protection Agency
8 Superfund Payments
9 Cincinnati Finance Center
10 PO Box 979076
11 St. Louis, MO 63197-9000.

12 c. At the time of payment, Respondents shall send notice that payment has
13 been made, as indicated in Paragraph 12 above, to the US Environmental Protection Agency,
14 Finance Center MS-NWD, Cincinnati, OH 45268.

15 37. The total amount to be paid by Respondents pursuant to this Section shall be
16 deposited in the Lower Duwamish Waterway Superfund Site Special Account within the EPA
17 Hazardous Substance Superfund to be retained and used to conduct or finance response actions at
18 or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance
19 Superfund.

20 38. If payments for Future Response Costs are not made within 30 days of
21 Respondents' receipt of a bill, Respondents shall pay Interest on the unpaid balance. The
22 Interest on Future Response Costs shall begin to accrue on the date of Respondents' receipt of
23 the bill and shall continue to accrue until the date of payment. Payments of Interest made under
24 this Paragraph shall be in addition to such other remedies or sanctions available to the United
25 States by virtue of Respondents' failure to make timely payments under this Section, including
26 but not limited to, payment of stipulated penalties pursuant to Section XVIII.

1 Respondents shall notify EPA orally within 24 hours of when Respondents first knew that the
2 event might cause a delay. Within 10 days thereafter, Respondents shall provide to EPA in
3 writing an explanation and description of the reasons for the delay; the anticipated duration of
4 the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for
5 implementation of any measures to be taken to prevent or mitigate the delay or the effect of the
6 delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to
7 assert such a claim, including supporting documentation for such a claim; and a statement as to
8 whether, in the opinion of Respondents, such event may cause or contribute to an endangerment
9 to public health, welfare or the environment. Failure to comply with the above requirements
10 shall preclude Respondents from asserting any claim of *force majeure* for that event for the
11 period of time of such failure to comply and for any additional delay caused by such failure.

12 45. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure*
13 event, the time for performance of the obligations under this Settlement Agreement that are
14 affected by the *force majeure* event will be extended by EPA for such time as is necessary to
15 complete those obligations. An extension of the time for performance of the obligations affected
16 by the *force majeure* event shall not, of itself, extend the time for performance of any other
17 obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused
18 by a *force majeure* event, EPA will notify Respondents in writing of its decision. If EPA agrees
19 that the delay is attributable to a *force majeure* event, EPA will notify Respondents in writing of
20 the length of the extension for performance of the obligations affected by the *force majeure*
21 event.

22 **XVIII. STIPULATED PENALTIES**

23 46. Each Respondent shall be liable to EPA for stipulated penalties in the amounts set
24 forth in this Section for its failure to comply with the requirements of this Settlement Agreement
25 specified below, unless excused under Section XVII (*Force Majeure*). More specifically, the
26 Port shall be solely responsible for any such penalties arising out of any failure to comply related

1 to Work for the Sediment and Uplands Areas, as described in Paragraph 8e of this Settlement
 2 Agreement, and the City will be solely responsible for such penalties arising out of any failure to
 3 comply related to Work for the Adjacent Streets and Residential Yards Area. Respondents shall
 4 be joint and severally liable for any penalties arising out of any failure to comply related to Work
 5 for all three Areas. “Compliance” by Respondents shall include completion of the activities
 6 under this Settlement Agreement or any work plan or other plan approved under this Settlement
 7 Agreement identified below in accordance with all applicable requirements of law, this
 8 Settlement Agreement, all Appendices, and any plans or other documents approved by EPA
 9 pursuant to this Settlement Agreement and within the specified time schedules established by
 10 and approved under this Settlement Agreement.

11 47. Stipulated Penalty Amounts - Work.

12 a. The following stipulated penalties shall accrue per violation per day for
 13 any noncompliance identified in Paragraph 47(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 1,000	1st through 7th day
\$ 2,000	8th through 14th day
\$ 3,500	15th through 30th day
\$ 7,500	31st day through 90th day

18 b. The final and all submitted drafts of the following Compliance Milestones:

- 19 1. Joint NTCRA Management Plan;
- 20 2. Intermediate Design Deliverables;
- 21 3. Final Design Deliverables;
- 22 4. Removal Action Work Plan;
- 23 5. Removal Action Construction Reports;
- 24 6. Removal Action Completion Report;
- 25 7. Long-term Monitoring & Maintenance Plan.

26 48. Stipulated Penalty Amounts - Reports. The following stipulated penalties shall
 accrue per violation per day for failure to submit timely or adequate final and all submitted draft
 reports or other written documents pursuant to this Settlement Agreement that are not listed in

1 Paragraph 47(b), and any failure to timely and adequately complete any Work required by this
2 Settlement Agreement or any approved plan or report:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 500	1st through 7th day
\$ 1,000	8th day through 14th day
\$ 2,500	15th through 30th day
\$ 5,000	31st day through 90th day

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7 49. All penalties shall begin to accrue on the day after the complete performance is
8 due or the day a violation occurs, and shall continue to accrue through the final day of the
9 correction of the noncompliance or completion of the activity. However, stipulated penalties
10 shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be
11 Performed), during the period, if any, beginning on the 31st day after EPA’s receipt of such
12 submission until the date that EPA notifies Respondents of any deficiency; and 2) with respect to
13 a decision by the ECL Director under Section XVI (Dispute Resolution), during the period, if
14 any, beginning on the 21st day after the Negotiation Period begins until the date that the ECL
15 Director issues a final decision regarding such dispute. Nothing herein shall prevent the
16 simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

17 50. Following EPA’s determination that Respondents have failed to comply with a
18 requirement of this Settlement Agreement, EPA may give Respondents written notification of
19 the failure and describe the noncompliance. EPA may send Respondents a written demand for
20 payment of the penalties. However, penalties shall accrue as provided in the preceding
21 Paragraph regardless of whether EPA has notified Respondents of a violation.

22 51. All penalties accruing under this Section shall be due and payable to EPA within
23 30 days of Respondents’ receipt from EPA of a demand for payment of the penalties, unless
24 Respondents invoke the dispute resolution procedures under Section XVI (Dispute Resolution).
25 All payments to EPA under this Section shall be paid by certified or cashier’s check(s) made
26 payable to “EPA Hazardous Substances Superfund,” shall be mailed to the Lockbox number and

1 address set forth in Paragraph 36b, above, shall indicate that the payment is for stipulated
2 penalties, and shall reference the EPA Region and the appropriate Site/Spill ID Number as set
3 forth in Paragraph 36b, above, the EPA Docket Number of this Settlement Agreement, and the
4 name and address of the parties making payment. Copies of check(s) paid pursuant to this
5 Section, and any accompanying transmittal letter(s), shall be sent to EPA as provided in
6 Paragraph 12, and to other receiving officials at EPA identified in Paragraph 36c, above.

7 52. The payment of penalties shall not alter in any way Respondents' obligation to
8 complete performance of the Work required under this Settlement Agreement.

9 53. Penalties shall continue to accrue during any dispute resolution period, but need
10 not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's
11 decision.

12 54. If Respondents fail to pay stipulated penalties when due, EPA may institute
13 proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the
14 unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph
15 50.

16 55. Nothing in this Settlement Agreement shall be construed as prohibiting, altering,
17 or in any way limiting the ability of EPA to seek any other remedies or sanctions available by
18 virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations
19 upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and
20 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section
21 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil
22 penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to
23 Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided
24 herein, except in the case of a willful violation of this Settlement Agreement or in the event that
25 EPA assumes performance of a portion or all of the Work pursuant to Section XX, Paragraph 59.
26 Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion,

1 waive any portion of stipulated penalties that have accrued pursuant to this Settlement
2 Agreement.

3 **XIX. COVENANT NOT TO SUE BY EPA**

4 56. In consideration of the actions that will be performed and the payments that will
5 be made by Respondents under the terms of this Settlement Agreement, and except as otherwise
6 specifically provided in this Settlement Agreement, EPA covenants not to sue or to take
7 administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42
8 U.S.C. §§ 9606 and 9607(a), for the Work and for Future Response Costs. This covenant not to
9 sue shall take effect upon the Effective Date and is conditioned upon the complete and
10 satisfactory performance by Respondents of all obligations under this Settlement Agreement,
11 including, but not limited to, payment of Future Response Costs pursuant to Section XV. This
12 covenant not to sue extends only to Respondents and does not extend to any other person.

13 **XX. RESERVATIONS OF RIGHTS**

14 57. Except as specifically provided in this Settlement Agreement, nothing herein shall
15 limit the power and authority of EPA or the United States to take, direct, or order all actions
16 necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize
17 an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous
18 or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking
19 legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other
20 legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in
21 the future to perform additional activities pursuant to CERCLA or any other applicable law.

22 58. The covenant not to sue set forth in Section XIX above does not pertain to any
23 matters other than those expressly identified therein. EPA reserves, and this Settlement
24 Agreement is without prejudice to, all rights against Respondents with respect to all other
25 matters, including, but not limited to:

26

- 1 a. claims based on a failure by Respondents to meet a requirement of this
2 Settlement Agreement;
- 3 b. liability for costs not included within the definition of Future Response
4 Costs;
- 5 c. liability for performance of response action other than the Work;
- 6 d. criminal liability;
- 7 e. liability for damages for injury to, destruction of, or loss of natural
8 resources, and for the costs of any natural resource damage assessments;
- 9 f. liability arising from the past, present, or future disposal, release or threat
10 of release of Waste Materials outside of the T-117 EAA; and
- 11 g. liability for costs incurred or to be incurred by the Agency for Toxic
12 Substances and Disease Registry related to the T-117 EAA.

13 59. Work Takeover. In the event EPA determines that Respondents have ceased
14 implementation of any portion of the Work, are seriously or repeatedly deficient or late in their
15 performance of the Work, or are implementing the Work in a manner which may cause an
16 endangerment to human health or the environment, EPA may assume the performance of all or
17 any portion of the Work as EPA determines necessary. Respondents may invoke the procedures
18 set forth in Section XVI (Dispute Resolution) to dispute EPA's determination that takeover of
19 the Work is warranted under this Paragraph. Costs incurred by the United States in performing
20 the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondents
21 shall pay pursuant to Section XV (Payment of Response Costs). Notwithstanding any other
22 provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take
23 any and all response actions authorized by law.

1 assigns, contractors, or consultants in carrying out actions pursuant to this Settlement
2 Agreement.

3 63. Except as expressly provided in Section XIX (Covenant Not to Sue by EPA),
4 nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or
5 cause of action against Respondents or any person not a party to this Settlement Agreement, for
6 any liability such person may have under CERCLA, other statutes, or common law, including
7 but not limited to any claims of the United States for costs, damages and interest under Sections
8 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

9 64. No action or decision by EPA pursuant to this Settlement Agreement shall give
10 rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. §
11 9613(h).

12 **XXIII. CONTRIBUTION**

13 65. The Parties agree that:

14 a. This Settlement Agreement constitutes an administrative settlement for
15 purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondents are
16 entitled, as of the Effective Date, to protection from contribution actions or claims as provided
17 by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for
18 “matters addressed” in this Settlement Agreement. The “matters addressed” in this Settlement
19 Agreement are the Work and Future Response Costs.

20 b. This Settlement Agreement constitutes an administrative settlement for
21 purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which
22 Respondents have, as of the Effective Date, resolved their liability to the United States for the
23 Work and Future Response Costs.

24 c. Nothing in this Settlement Agreement precludes the United States or
25 Respondents from asserting any claims, causes of action, or demands for indemnification,
26 contribution, or cost recovery against any persons not parties to this Settlement Agreement.

1 Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3)
2 of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional
3 response costs or response action and to enter into settlements that give rise to contribution
4 protection pursuant to Section 113(f)(2).

5 66. Respondents agree that with respect to any suit or claim for contribution brought
6 by them for matters related to this Settlement Agreement, they will notify EPA in writing no
7 later than 60 days prior to the initiation of such suit or claim. Respondents further agree that
8 with respect to any suit or claim for contribution brought against them for matters related to this
9 Settlement Agreement, they will notify EPA in writing within 10 days of service of the
10 complaint on them. In addition, Respondents shall notify EPA within 10 days of service or
11 receipt of any Motion for Summary Judgment and within 10 days of receipt of any order from a
12 court setting a case for trial.

13 67. In any subsequent administrative or judicial proceeding initiated by the United
14 States for injunctive relief, recovery of response costs, or other appropriate relief relating to the
15 T-117 EAA or this Settlement Agreement, Respondents shall not assert, and may not maintain,
16 any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue
17 preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by
18 the United States in the subsequent proceeding should have been addressed in this Settlement
19 Agreement; provided, however, that nothing in this Paragraph affects the enforceability of the
20 covenants not to sue set forth in this Settlement Agreement.

21 **XXIV. INDEMNIFICATION**

22 68. Respondents shall indemnify, save and hold harmless the United States, its
23 officials, agents, contractors, subcontractors, employees and representatives from any and all
24 claims or causes of action arising from, or on account of, negligent or other wrongful acts or
25 omissions of Respondents, their officers, directors, employees, agents, contractors, or
26 subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition,

1 Respondents agree to pay the United States all costs incurred by the United States, including but
2 not limited to attorneys fees and other expenses of litigation and settlement, arising from or on
3 account of claims made against the United States based on negligent or other wrongful acts or
4 omissions of Respondents, their officers, directors, employees, agents, contractors,
5 subcontractors and any persons acting on their behalf or under their control, in carrying out
6 activities pursuant to this Settlement Agreement. The United States shall not be held out as a
7 party to any contract entered into by or on behalf of Respondents in carrying out activities
8 pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be
9 considered an agent of the United States.

10 69. The United States shall give Respondents notice of any claim for which the
11 United States plans to seek indemnification pursuant to this Section and shall consult with
12 Respondents prior to settling such claim.

13 70. Respondents waive all claims against the United States for damages or
14 reimbursement or for set-off of any payments made or to be made to the United States, arising
15 from or on account of any contract, agreement, or arrangement between any one or more of
16 Respondents and any person for performance of Work on or relating to the T-117 EAA,
17 including, but not limited to, claims on account of construction delays. In addition, Respondents
18 shall indemnify and hold harmless the United States with respect to any and all claims for
19 damages or reimbursement arising from or on account of any contract, agreement, or
20 arrangement between any one or more of Respondents and any person for performance of Work
21 on or relating to the T-117 EAA, including, but not limited to, claims on account of construction
22 delays.

23 **XXV. INSURANCE**

24 71. At least 7 days prior to commencing any field Work under this Settlement
25 Agreement, Respondents shall secure, and shall maintain for the duration of this Settlement
26 Agreement, comprehensive general liability insurance and automobile insurance with limits of 5

1 million dollars, combined single limit. Within the same time period, Respondents shall provide
2 EPA with certificates of such insurance and a copy of each insurance policy. In addition, for the
3 duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their
4 contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision
5 of worker's compensation insurance for all persons performing the Work on behalf of
6 Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by
7 evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent
8 to that described above, or insurance covering some or all of the same risks but in an equal or
9 lesser amount, then Respondents need provide only that portion of the insurance described above
10 which is not maintained by such contractor or subcontractor.

11 **XXVI. FINANCIAL ASSURANCE**

12 72. Within 30 days of the Effective Date and on the anniversary of the Effective Date
13 every year thereafter until Notice of Completion of Work in accordance with Section XXVIII
14 below is received from EPA, Respondents shall establish and maintain financial security in the
15 amount of \$33,000,000.00 to assure the Work and any other obligations required under this
16 Settlement Agreement in one or more of the following forms:

- 17 a. A surety bond guaranteeing performance of the Work;
- 18 b. One or more irrevocable letters of credit equaling the total estimated cost
19 of the Work;
- 20 c. A trust fund;
- 21 d. A guarantee to perform the Work by one or more parent corporations or
22 subsidiaries, or by one or more unrelated corporations that have a substantial business
23 relationship with at least one of Respondents; or
- 24 e. A demonstration that one or more of the Respondents satisfy the
25 requirements of 40 C.F.R. Part 264.143(f).

26

1 73. If Respondents seek to demonstrate the ability to complete the Work through a
2 guarantee by a third party pursuant to Paragraph 72(d) of this Section, Respondents shall
3 demonstrate that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f). If
4 Respondents seek to demonstrate their ability to complete the Work by means of the financial
5 test or the corporate guarantee pursuant to Paragraph 72(d) or (e) of this Section, they shall
6 resubmit sworn statements conveying the information required by 40 C.F.R. 264.143(f) annually,
7 on the anniversary of the Effective Date. In the event that EPA determines at any time that the
8 financial assurances provided pursuant to this Section are inadequate, Respondents shall, within
9 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one
10 of the other forms of financial assurance listed in Paragraph 72 of this Section. Respondents'
11 inability to demonstrate financial ability to complete the Work shall not excuse performance of
12 any activities required under this Settlement Agreement.

13 74. If, after the Effective Date, Respondents can show that the estimated cost to
14 complete the remaining Work has diminished below \$33,000,000.00, Respondents may, on any
15 anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the
16 amount of the financial security provided under this Section to the estimated cost of the
17 remaining Work to be performed. Respondents shall submit a proposal for such reduction to
18 EPA, in accordance with the requirements of this Section, and may reduce the amount of the
19 security upon approval by EPA. In the event of a dispute, Respondents may reduce the amount
20 of the security in accordance with the written decision resolving the dispute.

21 75. Respondents may change the form of financial assurance provided under this
22 Section at any time, upon notice to and approval by EPA, provided that the new form of
23 assurance meets the requirements of this Section. In the event of a dispute, Respondents may
24 change the form of the financial assurance only in accordance with the written decision resolving
25 the dispute.

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1 **XXVII. MODIFICATIONS**

2 76. The EPA Project Coordinator may make modifications to any plan or schedule in
3 writing or by oral direction. Any oral modification will be memorialized in writing by EPA
4 promptly, but shall have as its effective date the date of the EPA Project Coordinator’s oral
5 direction. Any other requirements of this Settlement Agreement may be modified in writing by
6 mutual agreement of the parties.

7 77. If Respondents seek permission to deviate from any approved work plan or
8 schedule or Statement of Work, Respondents’ Project Coordinator shall submit a written request
9 to EPA for approval outlining the proposed modification and its basis. Respondents may not
10 proceed with the requested deviation until receiving oral or written approval from the EPA
11 Project Coordinator pursuant to Paragraph 76.

12 78. No informal advice, guidance, suggestion, or comment by the EPA Project
13 Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or
14 any other writing submitted by Respondents shall relieve Respondents of their obligation to
15 obtain any formal approval required by this Settlement Agreement, or to comply with all
16 requirements of this Settlement Agreement, unless it is formally modified.

17 **XXVIII. NOTICE OF COMPLETION OF WORK**

18 79. When EPA determines, after EPA’s review of the Final Removal Action
19 Completion Report, that all Work has been fully performed in accordance with this Settlement
20 Agreement, with the exception of any continuing obligations required by this Settlement
21 Agreement, including post-removal site controls and monitoring, if any, payment of Future
22 Response Costs, or record retention, EPA will provide written notice to Respondents. If EPA
23 determines that any such Work has not been completed in accordance with this Settlement
24 Agreement, EPA will notify Respondents, provide a list of the deficiencies, and require that
25 Respondents correct such deficiencies. Respondents shall implement the modified and approved
26 Work Plan and shall submit a modified Final Removal Action Completion Report in accordance

1 with the EPA notice. Failure by Respondents to implement the approved modified Work Plan
2 shall be a violation of this Settlement Agreement.

3 **XXIX. SEVERABILITY/INTEGRATION/APPENDICES**

4 80. If a court issues an order that invalidates any provision of this Settlement
5 Agreement or finds that Respondents have sufficient cause not to comply with one or more
6 provisions of this Settlement Agreement, Respondents shall remain bound to comply with all
7 provisions of this Settlement Agreement not invalidated or determined to be subject to a
8 sufficient cause defense by the court's order.

9 81. This Settlement Agreement and its appendices constitute the final, complete and
10 exclusive agreement and understanding among the Parties with respect to the settlement
11 embodied in this Settlement Agreement. The Parties acknowledge that there are no
12 representations, agreements or understandings relating to the settlement other than those
13 expressly contained in this Settlement Agreement. The following appendices are attached to and
14 incorporated into this Settlement Agreement:

- 15 a. Appendix A: Statement of Work.
- 16 b. Appendix B: Map generally depicting the T-117 EAA.

17 **XXX. EFFECTIVE DATE**

18 82. This Settlement Agreement shall be effective on the day it is issued by EPA. The
19 undersigned representatives of Respondents certify that they are fully authorized to enter into the
20 terms and conditions of this Settlement Agreement and to bind the parties they represent to this
21 document.

22 **XXXI. NOTICES AND SUBMISSIONS**

23 83. Documents including work plans, reports, approvals, disapprovals, and other
24 correspondence which must be submitted under this Settlement Agreement, shall be sent to the
25 individuals at the addresses specified below, unless those individuals give written notice of a
26 change to the other parties. All notices and submissions shall be considered effective one

1 business day after receipt by Respondent's Project Coordinator, unless otherwise provided.

2 Upon request by EPA, Respondents shall submit such documents in electronic form.

3 a. Two (2) copies of documents submitted to EPA shall be forwarded to:

4 Piper Peterson
5 U.S. Environmental Protection Agency
6 1200 Sixth Avenue, ECL-111, Suite 900
7 Seattle, Washington 98101

8 b. One (1) copy of documents submitted to EPA shall be forwarded to:

9 Rick Thomas
10 Washington Department of Ecology
11 Northwest Regional Office
12 3190 160th Avenue SE
13 Bellevue, Washington 98504

14 It is so ORDERED and AGREED.

15 By: _____ Date: _____

16 Acting ECL Unit Manager
17 U.S. EPA, Region X
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For Respondent City of Seattle:

By: _____ Date _____
Please provide mayor's or alternative signatory block with title

1 For Respondent Port of Seattle:

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4 By: _____ Date _____
5 Please provide Chief Executive Officer or alternative signatory block with title

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STATEMENT OF WORK

Lower Duwamish Waterway Superfund Site

Terminal 117 Early Action Area Non-Time Critical Removal Action

This Statement of Work (SOW) is Appendix A to the Administrative Settlement Agreement and Order on Consent For Non-Time Critical Removal Action (NTCRA) Implementation (Settlement Agreement), for the Terminal-117 (T-117) Early Action Area (EAA) of the Lower Duwamish Waterway (LDW) Superfund Site, EPA Docket No. CERCLA-10-2011-0089. It sets forth an outline of the requirements which will be amplified in the deliverables below for the Removal Design/Removal Action (RvD/RvA) of the NTCRA selected in the Action Memorandum issued on September 30, 2010. The RvD is generally those activities to be undertaken to develop the final plans and specifications, general provisions, and special requirements necessary to implement the NTCRA in the RvA phase. The RvA is generally the implementation phase of the NTCRA, including necessary operation and maintenance, performance monitoring, and special requirements. The RvA is based on the RvD.

Except for the joint NTCRA Management Plan described below, for which 'project management' (e.g., satisfactory timely performance, includes project lead and responsibility for preparation, reviews, and transmittal of deliverables) will be shared by Respondents, the Work will be managed by Respondents as follows: for the Sediment Area and Upland Area (Sediment and Upland Areas), as described in Paragraph 8e of the Settlement Agreement, the Port of Seattle (Port) will provide the project management; and for the Adjacent Streets and Residential Yards Area, the City of Seattle (City) will provide the project management.

General Requirements:

Consistent with Paragraphs 14-16 of the Settlement Agreement, Respondents shall conduct the RvD/RvA in accordance with this Settlement Agreement, and consistent with the Action Memorandum, the Remedial Design/Remedial Action Handbook (to the extent practicable) (US EPA Office of Solid Waste and Emergency Response (OSWER), 9355.0-04B, EPA 540/R-95/059, June 1995), and other published EPA policy and guidance for conducting Remedial Design/Remedial Action.

A summary of the major deliverables and a suggested schedule for submittals are attached (Attachment 1). A list of primary guidance and reference material for the RvD/RvA is in Attachment 2.

In addition to implementing the NTCRA selected in the Action Memorandum, Respondents will continue to provide maintenance, security and controls at Sediment and Upland Areas until EPA provides written Notice of Completion of Work, pursuant to Section XXVIII of the Order, or as may otherwise be specified in any approved plan or deliverable referenced below. Site maintenance includes monitoring, assessment, reporting and repairs, including Upland paving and storm water controls, bank and top of

bank repair, and ingress/egress and access controls. This work is currently being performed under another EPA Administrative Settlement Agreement which will be administratively terminated when this Settlement Agreement is issued.

Respondents shall also maintain the City's temporary capping of streets and rights-of-way and the temporary storm water collection system in the Adjacent Streets and Residential Yards Area, including the Baker Tanks until EPA provides written Notice of Completion of Work, pursuant to Section XXVIII of the Order, or as may otherwise be specified in any approved plan or deliverable referenced below. Respondents will continue monthly sampling and reporting of PCB concentrations and notification to EPA of emergency discharge to the LDW or any other location until EPA provides written Notice of Completion of Work, pursuant to Section XXVIII of the Order, or as may otherwise be specified in any approved plan or deliverable referenced below. If any non-emergency repairs are undertaken for any streets or rights-of-way in this Area, the City shall notify EPA at least 10 days in advance of any such action. All emergency repair action shall be subject to the notification provisions of Section XIII of the Settlement Agreement. This Settlement Agreement does not in any way alter any monitoring of storm water or anything else required by the Washington State Department of (Ecology).

EPA will provide oversight of Respondent activities throughout the RvD/RvA. EPA will review deliverables to assess the likelihood that the RvD/RvA will achieve its remediation goals and that its performance and operations requirements have been correctly identified. Acceptance of plans and specifications by EPA does not relieve the Respondents of responsibility for the adequacy of the design to satisfy the performance standards.

I. PROJECT PLANNING AND SUPPORT:

The following activities will be performed as part of the Project Planning and Support task:

Joint NTCRA Management Plan

Respondents will prepare and submit a draft and final Joint NTCRA Management Plan that includes the planned NTCRA RvD and RvA Work for the action areas described in the second Paragraph of this SOW, as follows:

- Document the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of removal actions;
- Document the responsibility and authority of all organizations and key personnel involved with the removal implementation and include a description of qualifications of key personnel directing the removal design, including the contractor personnel. In a Communications Plan, provide contact information (addresses, phone numbers, and e-mail) and general responsibilities for key personnel, including hierarchy, for joint and individual meetings with EPA.
- For each required RvD/RvA submittal in Attachment 1, provide:
 - a detailed description of the objective(s) and goal(s) of each work element (i.e., RvD and RvA

- deliverable or task);
- a breakdown or outline of the components and contents of each RvD and RvA deliverable or work element; and,
- a list of appropriate and current references (i.e., regulations and guidance documents) that apply to the deliverable, task or work element.)

Respondents are expected to complete the Joint NTCRA Management Plan within 30 days after issuance of this Settlement Agreement.

The following items represent additional Project Planning and Support ing submittals, which should be included in the outline of deliverables provided in the Joint NTCRA Management Plan.

1. Site-Specific Health and Safety Plans (HASP)

The site-specific HASP will include a separate Construction HASP (draft submitted with the Removal Action Work Plan) and Community HASP (draft submitted with the 90% Design Report).

2. Pre-Design Data Needs Work Plan

The Pre-Design Data Needs Work Plan presents a comprehensive description of the additional data collection and evaluation of activities to be performed, if any, to accomplish the RvD/RvA for the NTCRA.

3. Sampling and Analysis Plan (SAP)

- a. Should additional data be necessary, the SAP must identify the data gaps, sampling and data collection methods, and quality assurance. The SAP will include: (a) Quality Assurance Project Plan (QAPP); (b) Field Sampling Plan (FSP); and a (c) Data Management Plan (DMP).

4. Community Relations Plan

The Community Relations Plan describes Respondents' comprehensive community relations support to EPA throughout the RvD/RvA. At a minimum, the Plan will include: (a) Community Relations Strategy, (b) Fact Sheets, (c) Public Hearing, Meetings and Availability Support, including logistical and presentation support, and (d) Public Notice Support.

In addition to describing the overall management strategy and identifying additional data needs as described above, Respondents shall make all reasonable efforts to communicate to the public, which includes diverse communities and local businesses, and coordinate work under this Settlement Agreement to minimize disruption of normal use of the LDW and streets, rights of way and residential yards in South Park and adjacent project areas. Respondents shall address scheduling and coordination of Work under this Settlement Agreement, to the extent practicable, with other in-water work, navigation, or Tribal fishing near the T-117 EAA that may occur during NTCRA implementation. Respondents shall identify any known development projects anticipated on or near properties that are subject to Work under this Settlement Agreement.

II. REMOVAL DESIGN/REMOVAL ACTION

The RvD/RvA shall consist of the following seven (7) tasks (A-G). For these tasks and the rest of the tasks set forth below in this SOW, separate satisfactory performance is required for each of the work Areas described in the second Paragraph of this SOW (the Sediment and Uplands Areas may be combined). Respondents shall be responsible for implementing additional work elements necessary for successful implementation of the NTCRA Removal Design Phases.

- A. Removal Design Phases
 - a. Intermediate Design Deliverables
 - b. Pre-final (90%) Design/Final (100%) Design
- B. Removal Action Work Plan
- C. Removal Action/Construction
 - a. Preconstruction Inspection /Meeting
 - b. Removal Action Progress Meetings
 - c. Pre-final Construction Inspection
 - d. Final Construction Inspection
 - e. Reports
 - i. Removal Action Construction Report
 - ii. Final Removal Action Completion Report
- D. Performance Monitoring and Construction Quality Assurance Plan
- E. Permitting and Site Access Plan
- F. Long-term Monitoring & Maintenance Plan
- G. Biological Assessment

All documents, including work plans, reports, and memoranda required under this Settlement Agreement are subject to EPA review and approval as set forth in Paragraph 18 of the Settlement Agreement. All revised deliverables shall include a transmittal that states that the revision responds to each comment, and identifies how the comment was addressed in the revision. All progress reports will be used by EPA for informational purposes only and will not be formally approved.

A. Removal Design Phases

- a. **Intermediate Design.** Respondents shall submit the Intermediate Design when the design effort is approximately sixty (60) percent complete. The Intermediate Design submittal shall include or discuss, at a minimum, the following:
 - i. Results of additional field sampling;
 - ii. Plans, drawings, and sketches, including an outline of required specifications not otherwise provided in detail and a list of all final drawings to be included in pre-final and final design;

- iii. Design assumptions, parameters, design restrictions and objectives for capping, dredging, excavation and storm water systems;
- iv. Description/outline of proposed cleanup verification methods for removal action construction, including compliance with ARARs that will be addressed in the Construction Quality Assurance Plan (CQAP) and Operations, Maintenance & Monitoring Plan (OMMP) and identify the conclusion of the CQAP activities and beginning of OMMP activities;
- v. Draft Compensatory Mitigation Plan, if necessary, which shall address the performance standards and mitigation for unavoidable impacts to the LDW;
- vi. Deliverables may include, but not be limited to a draft CQAP, draft OMMP, draft QAPP/FSP for removal action construction, or may address other specific technical or design issues;
- vii. The Site Management Plan describes how access, security, contingency procedures, management responsibilities, and waste disposal are to be handled. These additional elements may be incorporated or delivered separately and will include, but not be limited to: (a) Pollution Control and Mitigation Plan, (b) Transportation and Disposal Plan (Waste Management Plan), and a (c) Green/Sustainable Remediation Site Plan.

- b. Pre-final (90%)/Final (100%) Design.** Respondents shall submit the Pre-final Design when the design effort is ninety (90) percent complete and shall submit the Final Design when the design effort is one hundred (100) percent complete. The pre-final Design shall fully address all comments made to the preceding design submittal(s). The Final Design shall fully address all comments made to the Pre-final Design and shall include reproducible drawings and specifications suitable for bid advertisement.

The Pre-final and Final Design submittals shall include those elements listed for the Intermediate Design, as well as the following (unless previously submitted as an Interim Design Element approved by EPA):

- i. Draft CQAP
- ii. Draft Water Quality Monitoring Plan. Shall detail water quality monitoring requirements as specified by EPA to confirm compliance with water quality standards (see ARARs table for water quality ARARs) and that Section 404 (b)(1) guidelines are met. Any storm water released into the NTCRA area must be monitored to ensure that it will not recontaminate the sediments. A QAPP/FSP specific to water quality monitoring shall be included in this deliverable.
- iii. Draft QAPP/HASP (Construction and Community)/FSP for remedial action construction activities (HASP for construction shall be submitted with RAWP)
- iv. Draft Permitting and Site Access Plan
- v. Draft Operation, Maintenance, & Monitoring Plan (OMMP)

- vi. Construction and Operation and Maintenance (O&M) Cost Estimate (accuracy of +15 percent and -10 percent). This cost estimate shall refine the EE/CA cost estimate to reflect the detail presented in the Final Design;
- vii. Final Compensatory Mitigation Plan, if necessary;
- viii. Final project Schedule for the construction and implementation of the NTCRA which identifies timing for initiation and completion of all critical path tasks. The final project schedule will address the T-117 RvA activities, and all other relevant factors that could impact scheduling such as the Boeing Plant 2 RCRA corrective action and any other cleanup projects slated for this portion of the LDW, tribal treaty-protected fishing rights and other LDW activities. Discuss how they will relate to the T-117 NTCRA. The final project schedule submitted as part of the Final Design shall include specific dates for major milestones and completion of the NTCRA.

B. Removal Action Work Plan. Respondents shall submit a Removal Action Work Plan which includes a detailed description of the NTCRA and construction activities, including how those construction activities are to be implemented by Respondents and coordinated with EPA (e.g., site-monitoring, material staging and handling). When describing implementation of the NTCRA, Respondents shall identify discrete elements for purposes of monitoring construction activities as they occur. The following shall be considered examples of discrete elements of the NTCRA: dredging, excavation, capping, and work in the marina. The Removal Action Work Plan shall include a project schedule for each major activity and submission of deliverables generated during the NTCRA.

The Removal Action Work Plan shall include, but not be limited to:

- a. The schedule for completion of the NTCRA;
- b. Method for selection of the contractor;
- c. Schedule for developing and submitting other required Removal Action plans;
- d. Final Water Quality Monitoring plan;
- e. Methods for satisfying permitting requirements;
- f. Tentative formulation of the Removal Action team; and
- g. Draft Construction Quality Control Plan (by General Contractor, when available)

The Removal Action Work Plan also shall include the methodology for implementation of the CQAP and a schedule for implementation of all NTCRA tasks identified in the final design submittal and shall identify the initial formulation of Respondents' Removal Action Project Team (including, but not limited to, the Supervising Contractor).

Respondents shall submit the following deliverables with submission of the Removal Action Work Plan (unless previously submitted and approved by EPA):

- a. Final Construction Quality Assurance Plan;
- b. Final Water Quality Monitoring Plan (with specific QAPP/FSP);

- c. Final QAPP/Final HASPs (Construction and Community)/Final FSP for removal action construction activities; and
- d. Final OMMP

C. Removal Action Construction. Respondents shall implement the NTCRA as detailed in the approved Final Design and Final Removal Action Work Plan. The following activities shall be completed in constructing the NTCRA.

- a. Pre-construction Inspection Meeting;
- b. NTCRA Progress Meetings;
- c. Pre-final Construction Inspections;
- d. Final Construction Inspections;
- e. Reports. Respondents agree to follow EPA guidance for preparing Remedial Action Reports described in “Close Out Procedures for National Priorities List Sites”, EPA 540-R-98-0916, OSWER Directive 9320.2-091-P, PB98-963223, January 2000 in submitting the following reports.

- i. Removal Action Construction Report.

This report shall be submitted by Respondents when the construction is complete for all discrete NTCRA elements.

Within thirty (30) days of the last successful final construction inspection, Respondents shall submit a Removal Action Construction Report. In the report, a registered professional engineer and the Respondent’s Project Coordinator, shall state that the removal action has been constructed in accordance with the design and specifications. The written report shall include as-built drawings signed and stamped by a professional engineer, and other supporting documentation to demonstrate the CQAP was followed. The report shall contain the following statement, signed by a responsible corporate official of a Respondent or the Respondents’ Project Coordinator:

“To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

- ii. Removal Action Completion Report.

This report shall be submitted by Respondents after construction is complete and all performance standards have been attained (including performance standards for mitigation areas), except where OMMP requirements will continue to be performed.

Within thirty (30) days of a successful demonstration that all performance standards have been attained, Respondents shall submit a Removal Action Completion Report. In the report, a registered professional engineer and the Respondent's Project Coordinator, shall state that the removal action has been completed in full satisfaction of the requirements of the Settlement Agreement. The report shall include a summary of all information (e.g., long-term monitoring data) demonstrating any performance standards not met in the Removal Action Construction Report have been attained. The report shall also include documentation not previously submitted with the Removal Action Construction Report verifying that performance standards have been attained. The report shall contain the following statement, signed by a responsible corporate official of a Respondent or the Respondents' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If, after review of the written report, EPA, after reasonable opportunity for review and comment by the State, determines that any portion of the Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondents in writing of deficiencies as set forth in Paragraph 79 of the Settlement Agreement. EPA will include a schedule for performance or require Respondents to submit a schedule to EPA for approval.

D. Performance Monitoring and Construction Quality Assurance.

Performance monitoring shall be conducted to ensure that all performance standards are met, including cleanup verification methods and methods for determining compliance with performance standards and ARARs. The CQAP under this task shall address all performance standards relate to the removal action construction. Long-term performance standards to be achieved after removal action construction is completed shall be addressed in the OMMP. The CQAP and supporting documents shall provide a mechanism to ensure that all performance standards for the removal action construction are met. Supporting documents to the CQAP shall include:

1. QAPP
2. HASPs (Construction and Community)
3. FSP

E. Permitting and Site Access Plan.

Respondents shall prepare a Permitting and Site Access plan to demonstrate how the Design plans will comply with the permitting requirements and shall address any real property and easement requirements. The plan shall provide a strategy and appropriate information for obtaining agreements for access to the site or associated areas as necessary for the implementation of the removal action.

F. Long-term Monitoring & Maintenance Plan.

Respondents shall submit for EPA approval a post-removal Long-term Monitoring & Maintenance Plan (LTMMP) and QAPP (or amendments to the removal design QAPP). The objectives of the LTMMP shall include, but not be limited to:

1. Long-term confirmation of maintaining performance standards after removal action;
2. Evaluating the long-term effectiveness of source control;
3. Evaluating habitat function and fisheries resources as needed to verify compliance with the Biological Assessment and Biological Opinion.

The Respondents shall prepare an LTMMP to cover both implementation and long-term maintenance and monitoring of the removal action.

G. Biological Assessment.

Respondents will prepare a draft Biological Assessment (BA) to ensure compliance with the Endangered Species Act by identifying the presence of threatened, endangered, proposed, or candidate species, or their habitat within the vicinity of the NTCRA. The BA will characterize baseline conditions of the existing habitat, address potential project impacts the removal action may have on these species, their habitat and food stocks. The BA will also identify best management practices and conservation measures designed to avoid or minimize potential impacts.

III. Schedule of Deliverables

The schedule for notification to EPA is described in the Settlement Agreement in Section XXXI, and the submission of deliverables to EPA is described below. If the date for submission of any item or notification required by this SOW occurs on a weekend or state or federal holiday, the date for submission of that item or notification is extended to the next working day following the weekend or holiday. A schedule identifying other cleanup activities in this reach of the LDW shall be incorporated into the schedule.

Attachments and Figures

Attachments

1. Deliverables and Schedule for Submittals
2. RD/RA Guidance Documents
3. Action Memorandum

Figures

1. Lower Duwamish Waterway Superfund Site Vicinity Map
2. T-117 Early Action Area (EAA) Site Overview

ATTACHMENT 1-- SCHEDULE

#	Submission	Due Date
1	Joint NTCRA Management Plan	Within thirty (30) days after signing the Settlement Agreement
2	Pre-Design Data Needs Work Plan (QAPP/HASP/SAP/FSP)	Upland/Sediments: Within thirty (30) days after signing the Settlement Agreement Streets/Yards: Within 12 months after signing the Settlement Agreement
3	Monthly Progress Reports	As specified in Section VII (20)(a) of the Settlement Agreement
4	Intermediate Design Deliverable incl. additional field sampling results not previously available	Upland/Sediments: One hundred and twenty (120) days after EPA's approval of the Joint NTCRA Management Plan Streets/Yards: 19 months after EPA's approval of the Joint NTCRA Management Plan
5	Pre-final Removal Design (90%) including Draft CQAP, Draft QAPP, HSP for RvA Construction, Permitting and Site Access Plan, Draft Water Quality Monitoring Plan, Draft OMMP, Final Compensatory Mitigation Plan (if necessary) and Final Project Schedule	Sixty (60) days after EPA's approval of Intermediate Design
6	Final Remedial Design (100%)	Forty-five (45) days after receipt of EPA's comments on the Pre-final Design
7	Notification for Removal Action Start	Provide notification to EPA thirty (30) days prior to initiation of fieldwork to allow EPA to coordinate field oversight activities
8	Removal Action Work Plan incl. Final CQAP, Water Quality Monitoring Plan, Final QAPP/HSP/FSP, Final OMMP	Within one hundred and fifty (150) days after approval of the Final Removal Design submittal
9	Award Removal Action Construction Contractor(s)	Within seventy-five (75) days after approval of the Final Removal Design submittal
10	Pre-Construction Inspection and Meeting	Fifteen (15) days after award of RvA Construction Contractor(s)
11	Initiate Construction of Removal Action	Within forty-five (45) days after approval of the Removal Action Work Plan, consistent with environmental windows for in-water work and dry weather period for upland work
12	Completion of Construction	As approved by EPA in RvA Construction Schedule

13	Pre-final Construction Inspection/Meeting	No later than thirty (30) days after completion of construction for each discrete element of the removal action
14	Pre-final Construction Inspection Letter/Report(s)	Within seven (7) days after the pre-final construction inspection for each element of the removal action
15	Final Construction Inspection(s)	Within thirty (30) days after completion of work identified in each pre-final construction inspection letter
16	LTMMP	No later than Removal Action Work Plan submittal
17	Final Construction Letter/Report(s)	Within thirty (30) days after each final construction/inspection meeting
18	Pre-certification Inspections	Within thirty (30) days after each of: Removal Action Construction, Removal Action Completion, and Completion of Work has been fully performed.
19	Removal Action Construction Report	Within thirty (30) days after pre-certification inspection
20	Removal Action Completion Report	Within thirty (30) days after Removal Action Objectives have been obtained

ATTACHMENT 2

Regulations and Guidance Documents

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RD and RA process:

1. American National Standards Practices for Respiratory Protection. American National Standards Institute Z88.2-1980, March 11, 1981.
2. ARCS Construction Contract Modification Procedures September 89, OERR Directive 9355.5-01/FS.
3. CERCLA Compliance with Other Laws Manual, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, August 1988(DRAFT), OSWER Directive No. 9234.1-01 and -02.
4. Community Relations in Superfund – A Handbook, U.S. EPA, Office of Emergency and Remedial Response, June 1988, OSWER Directive No. 9230.0-3B.
5. A Compendium of Superfund Field Operations Methods, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.
6. Construction Quality Assurance for Hazardous Waste Land Disposal Facilities, U.S. EPA, Office of Solid Waste and Emergency Response, October 1986, OSWER Directive No. 9472.003.
7. Contractor Requirements for the Control and Security of RCRA Confidential Business Information, March 1984.
8. Data Quality Objectives for Remedial Response Activities, U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.
9. Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, U.S. EPA Region IV, Environmental Services Division, April 1, 1986 (revised periodically).
10. EPA NEIC Policies and Procedures Manual, EPA-330/9-78-001-R, May 1978, revised November 1984.
11. Federal Acquisition Regulation, Washington, DC: U.S. Government Printing Office (revised periodically).
12. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive NO. 9355.3-01.

13. Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potential Responsible Parties, U.S. EPA Office of Emergency and Remedial Response, EPA/540/G-90/001, April 1990.
14. Guidance on Expediting Remedial Design and Remedial Actions, EPA/540/G-90/006, August 1990.
15. Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, U.S. EPA Office of Emergency and Remedial Response(DRAFT), OSWER Directive No. 9283.1-2.
16. Guide for Conducting Treatability Studies Under CERCLA, U.S. EPA, Office of Emergency and Remedial Response, Prepublication version.
17. Guide to Management of Investigation-Derived Wastes, U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9345.3-03FS, January 1992.
18. Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Research and Development, Cincinnati, OH, QAMS-004/80, December 29, 1980.
19. Health and Safety Requirements of Employees Employed in Field Activities, U.S. EPA, Office of Emergency and Remedial Response, July 12, 1982, EPA Order No. 1440.2.
20. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, U.S. EPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.
21. Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Emergency and Remedial Response, QAMS-005/80, December 1980.
22. Methods for Evaluating the Attainment of Cleanup Standards: Vol. 1, Soils and Solid Media, February 1989, EPA 23/02-89-042; vol. 2, Ground water (Jul 1997).
23. National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Federal Register 40 CFR Part 300, March 8, 1990.
24. NIOSH Manual of Analytical Methods, 2nd edition. Volumes I-VII for the 3rd edition, Volumes I and II, National Institute of Occupational Safety and Health.
25. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.
26. Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, February 19, 1992, OSWER Directive 9355.7-03.
27. Procedure for Planning and Implementing Off-Site Response Actions, Federal Register, Volume 50, Number 214, November 1985, pages 45933-45937.

28. Procedures for Completion and Deletion of NPL Sites, U.S. EPA, Office of Emergency and Remedial Response, April 1989, OSWER Directive No. 9320.2-3A.
29. Quality in the Constructed Project: A Guide for Owners, Designers and Constructors, Volume 1, Preliminary Edition for Trial Use and Comment, American Society of Civil Engineers, May 1988.
30. *Remedial Design/Remedial Action (RD/RA) Handbook*, U.S. EPA, Office of Solid Waste and Emergency Response (OSWER) 9355.0-04B, EPA 540/R-95/059, June 1995.
31. Revision of Policy Regarding Superfund Project Assignments, OSWER Directive No. 9242.3-08, December 10, 1991. [Guidance, p. 2-21]
32. Scoping the Remedial Design (Fact Sheet), February 1995, OSWER Publ. 9355-5-21 FS.
33. Standard Operating Safety Guides, U.S. EPA, Office of Emergency and Remedial Response, November 1984.
34. Standards for the Construction Industry, Code of Federal Regulations, Title 29, Part 1926, Occupational Health and Safety Administration.
35. Standards for General Industry, Code of Federal Regulations, Title 29, Part 1910, Occupational Health and Safety Administration.
36. Structure and Components of 5-Year Reviews, OSWER Directive No. 9355.7-02, May 23, 1991. [Guidance, p. 3-5]
37. Superfund Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties, April 1990, EPA/540/G-90/001.
38. Superfund Remedial Design and Remedial Action Guidance, U.S. EPA, Office of Emergency and Remedial Response, June 1986, OSWER Directive No. 9355.0-4A.
39. Superfund Response Action Contracts (Fact Sheet), May 1993. OSWER Publ. 9242.2-08FS.
40. TLVs-Threshold Limit Values and Biological Exposure Indices for 1987-88, American Conference of Governmental Industrial Hygienists.
41. Treatability Studies Under CERCLA, Final. U.S. EPA, Office of Solid Waste and Emergency Response, EPA/540/R-92/071a, October 1992.
42. USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, US. EPA, Office of Emergency and Remedial Response, July 1988.
43. USEPA Contract Laboratory Program Statement of Work for Organic Analysis, US. EPA, Office of Emergency and Remedial Response, February 1988.

44. User's Guide to the EPA Contract Laboratory Program, U.S. EPA, Sample Management Office, August 1982.

45. Value Engineering (Fact Sheet), U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9355.5-03FS. May 1990.

46. Clean and Green Policy, US. EPA, Region 10 Superfund, RCRA, LUST, and Brownfields (Regional Policy). August 13, 2009.

47. Superfund Green Remediation Strategy, US. EPA Office of Solid Waste and Emergency Response and Office of Superfund Remediation and Technology Innovation. September 2010.
(<http://www.epa.gov/superfund/greenremediation>)



- LDW study area
- Navigation channel
- River mile

Figure 1. Lower Duwamish Waterway Superfund site

Prepared by CEH 06/11/07, revised by MTY 11/23/09, Map #2939, W:\Projects\03-08-12 T-117 (Malarkey)\Data\GIS\2008 EECA



Figure 2. T-117 EAA site overview