

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 2

-----X	:	
IN THE MATTER OF THE	:	
MERCURY REFINING SUPERFUND SITE	:	
	:	
BRAMBLES ENVIRONMENTAL, INC.,	:	INDEX NO.
EVEREADY BATTERY COMPANY, INC.,	:	CERCLA - 02-2009-2020
NATIONAL GRID, SPECTRUM BRANDS, INC.	:	
THE GILLETTE COMPANY, UNION CARBIDE	:	
CORPORATION, VERIZON NEW YORK, INC.	:	
	:	
Respondents	:	
	:	
Proceeding under Sections 104, 106, and 122 of the	:	
Comprehensive Environmental Response,	:	
Compensation, and Liability Act, as amended,	:	
42 U.S.C. §§ 9604, 9606 and 9622.	:	
-----X	:	

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER  
FOR  
REMEDIAL DESIGN AND COST RECOVERY

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## I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order and Settlement Agreement ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and Brambles Environmental, Inc. ("Brambles"), Eveready Battery Company, Inc. ("Eveready"), National Grid, Spectrum Brands, Inc. ("Spectrum"), The Gillette Company ("Gillette"), Union Carbide Corporation ("Union Carbide"), and Verizon New York, Inc. ("Verizon") (collectively "Respondents"). This Settlement Agreement provides that Respondents shall undertake a Remedial Design ("RD"), including various pre-RD investigations and analyses, to produce a set of plans and specifications for implementation of the remedy selected in EPA's September 30, 2008 Record of Decision ("ROD") for the Mercury Refining Superfund Site ("Site"). In addition, Respondents shall reimburse the United States for certain response costs that it incurs, as provided herein.
2. This Settlement Agreement is issued to Respondents by EPA pursuant to the authority vested in the President of the United States under Sections 104, 106, 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9604, 9606, 9607, 9622, which authority was delegated to the Administrator of EPA on January 23, 1987 by Executive Order 12580, 52 Fed. Reg. 2926 (1987). This authority was further delegated to the Regional Administrators of EPA on September 13, 1987 by EPA Delegation 14-14-C, and redelegated within Region 2 to the Director of the Emergency and Remedial Response Division by Regional Order No. R-1200, dated November 23, 2004.
3. EPA and Respondents recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement do not constitute an admission of any liability, or an admission as to EPA's Findings of Fact or EPA's Conclusions of Law and Determinations. Respondents agree to undertake all actions required by the terms and conditions of this Settlement Agreement, and also agree not to contest the validity or terms of this Settlement Agreement in any action to enforce its provisions.
4. The objectives of EPA and Respondents in entering into this Settlement Agreement are to protect public health or welfare, or the environment at the Site by the design of response actions by Respondents, to reimburse response costs of EPA, and to resolve the claims of EPA against Respondents as provided in this Settlement Agreement.
5. In accordance with Section 122(j)(1) of CERCLA, 42 U.S.C. §9622(j)(1), EPA notified federal natural resource trustee(s) on February 26, 2009 of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under federal trusteeship and encouraged the trustee(s) to participate in the negotiation of this Settlement Agreement.

## II. PARTIES BOUND

6. This Settlement Agreement shall apply to and be binding upon EPA and upon Respondents and their successors and assigns. Any change in ownership or corporate status of a

Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement Agreement. The signatories to this Settlement Agreement certify that they are authorized to execute and legally bind the parties they represent.

7. Respondents are jointly and severally liable for carrying out all activities required by this Settlement Agreement. In the event of the insolvency or other failure of any one or more Respondents to implement the requirements of this Settlement Agreement, the remaining Respondents shall complete all such requirements.

8. Respondents shall provide a copy of this Settlement Agreement to all contractors, subcontractors, laboratories, and consultants which are retained to conduct any Work performed under this Settlement Agreement, within fourteen (14) days after the effective date of this Settlement Agreement or after the date of such retention. Respondents shall condition any such contracts upon satisfactory compliance with this Settlement Agreement. Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Settlement Agreement and for ensuring that their employees, contractors, consultants, subcontractors and agents comply with this Settlement Agreement.

### III. DEFINITIONS

9 Unless otherwise expressly provided herein, terms used in this Settlement Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or its implementing regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto, or incorporated by reference into this Settlement Agreement, the following definitions shall apply:

- a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601-9675.
- b. "Day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.
- c. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXVIII (Effective Date and Subsequent Modification).
- d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
- e. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including, but not limited to, payroll costs, contractor costs, travel

costs, laboratory costs, the costs incurred pursuant to Paragraph 49 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation) and Paragraph 84 (Work Takeover).

- f. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with CERCLA § 107(a), 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.
- g. "Mereco Property" shall mean the portion of the Site upon which the Mercury Refining Company, Inc. operated its mercury reclamation facility, located at 26 Railroad Avenue in the Towns of Guilderland and Colonie, Albany County, New York.
- h. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, and codified at 40 C.F.R. Part 300, including any amendments thereto.
- i. "NYSDEC" shall mean the New York State Department of Environmental Conservation and any successor departments or agencies of the State.
- j. "Paragraph" shall mean a portion of this Consent Settlement Agreement identified by an Arabic numeral.
- k. "Performance Standards" shall mean the cleanup standards and Remedial Action Objectives and other measures of achievement of the goals of the Remedial Action set forth in the ROD and Section II of the Statement of Work ("SOW") attached hereto as Appendix A.
- l. "Record of Decision" or "ROD" shall mean the EPA Record of Decision relating to the Site signed on September 30, 2008 by the Acting Director of the Emergency Remedial Response Division, EPA Region 2, including all attachments thereto, attached hereto as Appendix B.
- m. "Remedial Design" or "RD" shall mean those activities to be undertaken by Respondents to develop the final plans and specifications for the Remedial Action pursuant to the Remedial Design Work Plan.
- n. "Remedial Design Work Plan" or "RD Work Plan" shall mean the document developed pursuant to Section V of the SOW and approved by EPA, and any amendments thereto.

- o. "Respondents" shall mean Brambles, Eveready, National Grid, Spectrum, Gillette, Union Carbide, and Verizon, collectively.
- p. "Section" shall mean a portion of this Consent Settlement Agreement identified by an upper-case Roman numeral and includes one or more Paragraphs.
- q. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto. In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.
- r. "Site" shall mean the Mercury Refining Superfund Site, which includes an approximately ½-acre parcel, located at 26 Railroad Avenue, Towns of Colonie and Guilderland, Albany County, New York, and all areas to which contamination has migrated including adjacent properties, the unnamed tributary to the Patroon Creek and the I-90 Pond. The Site is depicted generally on the map attached as Appendix C.
- s. "State" shall mean the State of New York.
- t. "United States" shall mean the United States of America.
- u. "Waste Material" shall mean (i) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (ii) any "pollutant or contaminant" under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); and (iii) any "solid waste" under Section 1004(27) of the Solid Waste Disposal Act, as amended, 42 U.S.C. § 6903(27).
- v. "Work" shall mean all activities, including, the payment of Future Response Costs as provided in Section XV below, Respondents are required to perform under this Settlement Agreement, except those required by Section XIII (Record Retention).

#### IV. EPA'S FINDINGS OF FACT

10. The Site is located at, and in the vicinity of, 26 Railroad Avenue, in the Towns of Guilderland and Colonie, Albany County, New York. The Site is located in a light industrial and commercial area. Approximately 20,000 people live within a 1.5 mile radius of the Site, 100,000 people live within 3 miles of the Site. The closest residents live 1/4 mile from the Site. Local surface water is used for recreation and as a drinking water supply. An unnamed tributary to Patroon Creek ("Unnamed Tributary") runs next to the Site. The Unnamed Tributary merges with Patroon Creek downstream of the Site. Patroon Creek empties into the Hudson River five miles downstream of the Site.

11. The Site was operated by the Mercury Refining Company, Inc. ("Mereco") from the late-1950's until 1998 as a mercury reclamation facility. During this time, special "retort" ovens were

used to heat mercury-bearing materials to recover mercury, which was then further processed and refined on the Site before being sold. EPA has catalogued over 7 million pounds of material which was sent to the Site for mercury reclamation.

12. Mercury, which is a hazardous substance as that term is defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), has been released at or from the Site, and there is a threat of further such releases into the environment. In the course of Site processing operations, air emissions, discharges of mercury-containing wastes into a storm sewer, dumping of mercury-containing residues from the retort process, other sloppy materials handling, and fires, caused mercury to be released onto the soils and into groundwater, surface water and sediment at the Site.

13. The Site was placed on the National Priorities List ("NPL") pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, on September 1, 1983.

14. From 1983, when the Site was placed on the NPL, through November 1999, the lead agency with respect to the planning and implementation of response actions at the Site under the NCP, 40 CFR Part 300, was NYSDEC. In November 1999, NYSDEC requested that EPA take over the lead in the remediation of the Site under the Superfund program.

15. From 2000 through 2008, EPA conducted a remedial investigation/feasibility study ("RI/FS"). The RI found significant mercury contamination in soils on the Mereco Property, the highest concentrations of which were observed from within 100 feet of the eastern portion of the Mereco Property. The highest detected concentration of mercury (38,000 parts per million ("ppm")) was detected at 10 feet below ground surface ("bgs") and beads of elemental mercury were found to a depth of 56 bgs. Methyl mercury was detected in sediments in three catch basins at the Site at concentrations ranging from 61 parts per billion ("ppb") to 263 ppb. Mercury was also detected at 38 ppm in the surface sediment of the Unnamed Tributary which receives storm water discharge from the Mereco Property.

16. EPA's Human Health Risk Assessment found unacceptable, potential risks from direct exposure to mercury-contaminated soils and groundwater to potentially exposed populations at the Site. EPA's Baseline Ecological Risk Assessment found unacceptable risks to ecological receptors associated with mercury-contaminated sediment in the Unnamed Tributary to the Patroon Creek at the stormwater discharge from the Mercury Refining property.

17. Human exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and a developing fetus. With regard to ecological receptors, biomagnification through the food chain is the main concern with mercury. Birds exposed to mercury suffer adverse effects to the central nervous system and kidneys. In invertebrates, there can be chromosomal abnormalities in flies and reduced segment regeneration in worms.

18. On September 30, 2008, EPA issued the ROD for the Site which includes the following response actions: 1) excavation and off-Site disposal of surface soils and subsurface soils above the water table from the Mereco Property and its adjoining properties (*i.e.*, Albany Pallet, Allied



Building and Diamond W) which exceed the cleanup level for mercury in soil of 5.7 ppm for industrial property usage including soils associated with the stormwater sewer/catch basin systems, 2) solidification/stabilization involving mixing or injection of treatment agents at the Mereco and Allied Building properties to immobilize contaminants in surface soils, subsurface soils, and soils below the water table where the groundwater has a dissolved mercury concentration which exceeds the cleanup level of 0.7 ppb for mercury in groundwater, 3) institutional controls, 4) development of a Site Management Plan, 5) removal, dewatering and disposal of the mercury-contaminated sediments in the Unnamed Tributary exceeding the cleanup level for mercury in sediments of 1.3 ppm, and 6) sampling of the fish, surface water and sediments in the Patroon Creek, the Unnamed Tributary and the I-90 Pond to assess impacts on the biota.

## V. EPA'S CONCLUSIONS OF LAW AND DETERMINATIONS

19. The Site is a "facility" within the meaning of Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
20. The contamination found at the Site, as identified in the Findings of Fact above, includes hazardous substances as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
21. The conditions described in the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22). Such releases include, but are not limited to, mercury that was discharged into the soil, groundwater and sediments at the Site.
22. Each Respondent is a corporation and therefore is a "person" within the meaning of Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
23. Each Respondent is a responsible party with respect to the Site under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a) because each Respondent arranged for the disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).
24. Respondents are jointly and severally liable to EPA for performance of response actions under this Settlement Agreement and for Future Response Costs.
25. Respondents have discussed with EPA the basis for this Consent Settlement Agreement and its terms.

## VI. ORDER

26. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby ordered and agreed that Respondents shall comply with all provisions of this Settlement Agreement, including, but not limited to, all attachments to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

## VII. DESIGNATED EPA PROJECT MANAGER AND RESPONDENTS' PROJECT COORDINATORS

27. Within ten (10) days after the effective date of this Settlement Agreement, Respondents shall select a coordinator to be known as the Project Coordinator and shall submit the name, address, qualifications, and telephone number of the Project Coordinator to EPA. The Project Coordinator shall be responsible on behalf of Respondents for oversight of the implementation of this Settlement Agreement. The Project Coordinator shall not be an attorney engaged in the practice of law. He or she shall have the technical expertise sufficient to adequately oversee all aspects of the Work contemplated by this Settlement Agreement. The Project Coordinator shall be knowledgeable at all times about all matters relating to the Work being performed under this Settlement Agreement.

28. Selection of the Project Coordinator shall be subject to approval by EPA in writing. If EPA disapproves a proposed Project Coordinator, Respondents shall propose a different person and notify EPA of that person's name, address, telephone number and qualifications within seven (7) days following EPA's disapproval. Respondents may change its Project Coordinator provided that EPA has received written notice at least seven (7) days prior to the desired change. All changes of the Project Coordinator shall be subject to EPA approval.

29. EPA correspondence related to this Settlement Agreement will be sent to the Project Coordinator. Notice by EPA in writing to the Project Coordinator shall be deemed notice to the Respondents for all matters relating to the Work under this Settlement Agreement and shall be effective upon receipt. To the extent possible, the Project Coordinator shall be present on-Site or readily available for EPA to contact during all working days and be retained by Respondents at all times until EPA issues a Notice of Completion of the Work in accordance with Paragraph 113.

30. Respondents shall retain at least one contractor, hereinafter referred to as the Supervising Contractor, to perform the Work. Respondents shall notify EPA of the name and qualifications of a proposed contractor within ten (10) days of the effective date of this Settlement Agreement. The Supervising Contractor may be the same person as the Project Coordinator. Respondents shall also notify EPA of the name and qualifications of any other contractor or subcontractor proposed to perform Work under this Settlement Agreement at least ten (10) days prior to commencement of such Work.

31. All activities required of Respondents under the terms of this Settlement Agreement shall be performed only by well-qualified persons possessing all necessary permits, licenses, and other authorizations required by Federal, State, and/or local governments consistent with Section 121 of CERCLA, 42 U.S.C. § 9621, and all Work conducted pursuant to this Settlement Agreement shall be performed in accordance with prevailing professional standards. All plans and specifications shall be prepared under the supervision of, and signed/certified by, a licensed New York professional engineer.

32. EPA retains the right to disapprove of any, or all, of the contractors and/or subcontractors proposed by Respondents to conduct the Work. If EPA disapproves in writing of any of

Respondents' proposed contractors to conduct the Work, Respondents shall propose a different contractor within seven (7) days of receipt of EPA's disapproval.

33. Respondents shall provide a copy of this Settlement Agreement to each contractor and subcontractor approved and retained to perform the Work required by this Settlement Agreement. Respondents shall include in all contracts or subcontracts entered into for Work required under this Settlement Agreement provisions stating that such contractors or subcontractors, including their agents and employees, shall perform activities required by such contracts or subcontracts in compliance with this Settlement Agreement and all applicable laws and regulations. Respondents shall be responsible for ensuring that its contractors and subcontractors perform the Work contemplated herein in accordance with this Settlement Agreement.

34. EPA has designated Thomas Taccone of the New York Remediation Branch, Emergency and Remedial Response Division, EPA Region 2, as its Remedial Project Manager ("RPM"). Except as otherwise provided in this Settlement Agreement, Respondents shall direct all submissions required by this Settlement Agreement to the RPM via e-mail at [taccone.tom@epa.gov](mailto:taccone.tom@epa.gov) and by regular mail, at U.S. EPA, Region 2, 290 Broadway, 20<sup>th</sup> Floor, New York, NY 10007.

35. EPA's RPM shall have the authority lawfully vested in a RPM by the NCP. In addition, EPA's RPM shall have the authority, consistent with the NCP, to halt any Work required by this Settlement Agreement and to take any necessary response action when the RPM determines that conditions at the Site may present an immediate endangerment to public health, welfare, or the environment. The absence of the RPM from the area under study pursuant to this Settlement Agreement shall not be cause for the stoppage or delay of Work.

36. EPA and Respondents shall have the right, subject to Paragraphs 27 and 34, to change their RPM and Project Coordinators, respectively. Respondents shall notify EPA ten (10) days before such change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

#### VIII. WORK TO BE PERFORMED

37. a. Respondents shall perform all actions necessary to implement the Statement of Work attached hereto as Appendix A and this Settlement Agreement.

b. Respondents shall make best efforts to coordinate in the performance of the Work required by this Settlement Agreement with any person not a party to this Settlement Agreement who is directed by EPA and who makes good-faith offers to perform or, in lieu of performance to pay for, in whole or in part, the Work required by this Settlement Agreement. Best efforts to coordinate shall include, at a minimum:

i. Replying in writing within a reasonable period of time to good-faith offers to perform or pay for the Work required by this Settlement Agreement;

ii. Engaging in good-faith negotiations with any person not a party to this Settlement Agreement who makes good faith offers to perform or pay for the Work required by this Settlement Agreement; and

iii. Good-faith consideration of good-faith offers to perform or pay for the Work required by this Settlement Agreement.

Upon request of EPA and subject to any claims of applicable privileges(s), Respondents shall submit to EPA (1) any offer to perform or pay for, or (2) all documentation relating to the performance of or payment for, the Work required by this Settlement Agreement by any non-respondent to this Settlement Agreement. Nothing in this Paragraph shall be construed to require or permit Respondents to delay implementing the Work for the Site or otherwise complying with the terms of this Settlement Agreement.

38. Respondent shall conduct the Work required hereunder in accordance with CERCLA, the NCP, and the ROD, as well as applicable provisions of the following guidance documents, and of other guidance documents referenced in the following guidance documents: *Uniform Federal Policy for Implementing Quality Systems* (UFP-QS), EPA-505-F-03-001, March 2005 or newer, *Uniform Federal Policy for Quality Assurance Project Plans* (UFP-QAPP), Parts 1, 2 and 3, EPA-505-B-04-900A, B and C, March 2005 or newer, *EPA Region 2's "Clean and Green Policy"* which may be found at <http://epa.gov/region2/superfund/greenremediation/policy.html>, *Guidance for Scoping the Remedial Design* (EPA 540/R-95/025, March 1995), and *Guide to Management of Investigation-Derived Wastes* (OSWER Publication 9345.3-03FS, January 1992), as they may be amended or modified by EPA. The tasks that Respondents must perform (including future deliverables) and the scope of such Work are identified in this Settlement Agreement and the Statement of Work which is incorporated into and is an enforceable part of this Settlement Agreement. Each deliverable required pursuant to this Settlement Agreement shall be deemed incorporated into and an enforceable part of this Settlement Agreement upon its approval by EPA. In the event EPA approves a portion of a plan, report, or other item required to be submitted to EPA under this Settlement Agreement, the approved portion shall be deemed to be incorporated in and an enforceable part of this Settlement Agreement, subject to Paragraph 46, below. Respondents shall perform the Work in accordance with the Statement of Work and the RD Work Plan and other deliverables approved, modified or issued by EPA under this Settlement Agreement, as they may be modified or amended pursuant to Section IX below, and the Respondents shall also comply with all other requirements of this Settlement Agreement.

39. Respondents shall assure that field personnel used by Respondents are properly trained in the use of field equipment and in chain-of-custody procedures.

#### IX. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

40. After review of any plan, report, or other item that is required to be submitted for approval pursuant to this Settlement Agreement, in a notice to Respondents, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination

of the above. However, EPA shall not modify a submission without first providing Respondents at least one notice of deficiency and an opportunity to cure within twenty one (21) days or other time frame as determined by EPA, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

41. In the event of approval, approval upon conditions, or modification by EPA, pursuant to subparagraphs 40(a), (b) or (c) above, Respondents shall proceed to take any action required by the plan, report, or other deliverable, as approved or modified by EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XVI (Dispute Resolution) with respect to the modifications or conditions made by EPA. Following EPA approval or modification of a submission or portion thereof, Respondents shall not thereafter alter or amend such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Paragraph 44 and the submission had a material defect, EPA retains the right to seek stipulated penalties, as provided in Section XVIII (Stipulated Penalties).

42. Resubmission of Plans.

a. Upon receipt of a notice of disapproval pursuant to Paragraph 40, Respondents shall, within ten (10) days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XVIII, shall accrue during the 10-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 43 and 44.

b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 40, Respondents shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Respondents of any liability for stipulated penalties under Section XVIII (Stipulated Penalties).

c. For all remaining deliverables not listed above in Subparagraph 40(c), Respondents shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval on the submitted deliverable. EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity, or deliverable at any point.

43. If EPA disapproves a resubmitted plan, report, or other deliverable, or portion thereof, EPA may again direct Respondents to correct the deficiencies. EPA also retains the right to modify or develop the plan, report, or other deliverable. Respondents shall implement any such plan, report, or deliverable as corrected, modified, or developed by EPA, subject only to Respondents' right to invoke the procedures set forth in Section XVI (Dispute Resolution).

44. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by EPA due to a material defect, Respondents shall be deemed to have failed to submit such plan, report, or other deliverable timely and adequately, unless Respondents invoke the dispute

resolution procedures in accordance with Section XVI (Dispute Resolution) and EPA's action is revoked or substantially modified pursuant to a Dispute Resolution decision issued by EPA or superseded by an agreement reached pursuant to that Section. The provisions of Section XVI (Dispute Resolution) and Section XVIII (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is not otherwise revoked, substantially modified, or superseded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XVI, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVIII.

45. In the event that EPA takes over some of the tasks, Respondents shall incorporate and integrate information supplied by EPA into the final reports.

46. All plans, reports, and other deliverables submitted to EPA under this Settlement Agreement shall, upon approval or modification by EPA, be incorporated into and enforceable under this Settlement Agreement. In the event EPA approves or modifies a portion of a plan, report, or other deliverable submitted to EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and become enforceable under this Settlement Agreement.

#### X. SUBMISSION OF PLANS AND REPORTING REQUIREMENTS

##### 47. Reporting

a. Respondents shall submit a written progress report to EPA concerning actions undertaken pursuant to this Settlement Agreement every 30<sup>th</sup> day after the date of receipt of EPA's approval of the Work Plan until termination of this Settlement Agreement, unless otherwise directed in writing by EPA. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. Respondents shall submit copies of all plans, reports, or other submissions required by this Settlement Agreement, the Statement of Work, or any approved work plan as set forth below. Any electronic submissions must be in a format that is compatible with EPA software and in database files and sizes to be specified by EPA. Reports should be submitted to the following:

4 copies:	Remedial Project Manager - Mercury Refining Site
(1 unbound;	Emergency and Remedial Response Division
1 electronic)	United States Environmental Protection Agency, Region 2
	290 Broadway, 20 <sup>th</sup> Floor
	New York, New York 10007-1866

1 copy: Chief, New York/Caribbean Superfund Branch  
Office of Regional Counsel  
United States Environmental Protection Agency, Region 2  
290 Broadway, 17<sup>th</sup> Floor  
New York, New York 10007-1866

Attn: Mercury Refining Superfund Site Attorney

3 copies: Director, Division of Environmental Remediation  
(2 unbound; New York State Department of Environmental Conservation  
1 electronic) 625 Broadway, 12<sup>th</sup> Floor  
Albany, New York 12233-7011  
Attn: Mercury Refining Superfund Site

#### XI. SITE ACCESS

48. If any Respondent owns or controls the Site, or any other property where access is needed to implement this Settlement Agreement, such Respondent shall, commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, to conduct any activity related to this Settlement Agreement. Respondents who own or control property at the Site shall, at least 30 days prior to the conveyance of any interest in real property at the Site, give written notice to the transferee that the property is subject to this Settlement Agreement and written notice to EPA of the proposed conveyance, including the name and address of the transferee. Respondents who own or control property at the Site also agree to require that their successors comply with the immediately preceding sentence, this Section, and Section XII (Access to Information).

49. Where any action under this Settlement Agreement is to be performed in areas owned by, or in possession of, someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within thirty (30) days after the Effective Date, or as otherwise specified in writing by EPA. Respondents shall immediately notify EPA if, after using their best efforts, they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to obtain access. EPA may then assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate. Respondents shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XV (Payment of Future Response Costs).

50. Notwithstanding any provision of this Settlement Agreement, EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, Resource Conservation and Recovery Act ("RCRA"), and any other applicable statutes or regulations.

51. If Respondents cannot obtain access agreements, EPA may obtain access for

Respondents, perform those tasks or activities with EPA contractors, or terminate the Settlement Agreement. If EPA performs those tasks or activities with EPA contractors and does not terminate the Settlement Agreement, Respondents shall perform all other activities not requiring access to that site and shall reimburse EPA for all costs incurred in performing such activities. Respondents shall integrate the results of any such tasks undertaken by EPA into its reports and deliverables.

## XII. ACCESS TO INFORMATION

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

53. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it is submitted to EPA, or if EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents. Respondents shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Respondents assert business confidentiality claims.

54. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondents assert such a privilege in lieu of providing documents, they shall provide EPA with the following: a) the title of the document, record, or information; b) the date of the document, record, or information; c) the name and title of the author of the document, record, or information; d) the name and title of each addressee and recipient; e) a description of the contents of the document, record, or information; and f) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

55. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at, or around, the Site.



### XIII. RECORD RETENTION

56. During the pendency of this Settlement Agreement and until 10 years after Respondents' receipt of EPA's notification that Work has been completed, each Respondent shall preserve and retain all non-identical copies of documents, records, and other information (including documents, records, or other information in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after notification that work has been completed, Respondents shall also instruct their contractors and agents to preserve all documents, records, and other information of whatever kind, nature, or description relating to performance of the Work.

57. At the conclusion of this document retention period, Respondents shall notify EPA at least 90 days prior to the destruction of any such documents, records, or other information and, upon request by EPA, Respondents shall deliver any such documents, records, or other information to EPA. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide EPA with the following: a) the title of the document, record, or other information; b) the date of the document, record, or other information; c) the name and title of the author of the document, record, or other information; d) the name and title of each addressee and recipient; e) a description of the subject of the document, record, or other information; and f) the privilege asserted by Respondents. However, no documents, records, or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

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

### XIV. COMPLIANCE WITH OTHER LAWS

59. Respondents shall undertake all action that this Settlement Agreement requires in accordance with the requirements of all applicable local, state, and federal laws and regulations, unless an exemption from such requirements is specifically provided by law or in this Settlement Agreement. The activities conducted pursuant to this Settlement Agreement, if approved by EPA, shall be considered consistent with the NCP.

60. Except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and the

NCP, no permit shall be required for any portion of the Work conducted entirely on-Site. Where any portion of the Work requires a federal or state permit or approval, Respondents shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

61. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

#### XV. PAYMENT OF FUTURE RESPONSE COSTS

62. Respondents hereby agree to reimburse EPA for the first \$200,000 of Future Response Costs. EPA will periodically send billings to Respondents for Future Response Costs. The billings will be accompanied by a printout of cost data in EPA's financial management system. Respondents shall remit payment to EPA via electronic funds transfer ("EFT") within thirty (30) days of receipt of each such billing.

63. To effect payment via EFT, Respondents shall instruct their bank to remit payment in the required amount via EFT using the following information, or such other updated EFT information that EPA may subsequently provide to Respondents:

- . Amount of payment
- . Bank: **Federal Reserve Bank of New York**
- . Account code for Federal Reserve Bank account receiving the payment: **68010727**
- . Federal Reserve Bank ABA Routing Number: **021030004**
- . SWIFT Address: **FRNYUS33**  
33 Liberty Street  
New York, NY 10045
- . Field Tag 4200 of the Fedwire message should read:  
**D 68010727 Environmental Protection Agency**
- . Name of remitter:
- . Settlement Agreement Index number: **CERCLA - 02-2009-2020**
- . Site/spill identifier: **02-76**

At the time of payment, Respondents shall send notice that such payment has been made by email to [acctsreceivable.cinwd@epa.gov](mailto:acctsreceivable.cinwd@epa.gov), and to:

U.S. Environmental Protection Agency  
Cincinnati Finance Office  
26 Martin Luther King Drive  
Cincinnati, OH 45268

and:

Thomas Taccone, Remedial Project Manager  
Emergency and Remedial Response Division

U.S. Environmental Protection Agency, Region II  
290 Broadway, 20<sup>th</sup> Floor  
New York, NY 10007-1866

as well as to:

Sharon E. Kivowitz  
Assistant Regional Counsel  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region II  
290 Broadway, 17th Floor  
New York, New York 10007-1866

Such notice shall reference the date of the EFT, the payment amount, the name of the Site, the Settlement Agreement index number, and Respondents' names and addresses.

The total amount to be paid by Respondents pursuant to this Paragraph shall be deposited into the Mercury Refining Superfund Site Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

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

65. Respondents may contest payment of any Future Response Costs billed under Paragraph 62, if they determine that EPA has made an accounting error, or if they allege that a cost item that is included represents costs that are inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill and must be sent to the EPA RPM. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondents shall, within the 30-day period, pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 63. Simultaneously, Respondents shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of New York and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the EPA RPM a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the Dispute Resolution procedures in Section XVI (Dispute

Resolution). If EPA prevails in the dispute, within 5 days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 63. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 63. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVI (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for Future Response Costs.

#### XVI. DISPUTE RESOLUTION

66. Unless this Settlement Agreement expressly provides otherwise, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

67. If Respondents object to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, they shall notify EPA in writing of their objection(s) within twenty (20) days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondents shall have twenty (20) days from EPA's receipt of Respondents' written objection(s) to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

68. Any agreement reached by the parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Division Director level or higher will issue a written decision on the dispute to Respondents. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondents' obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs. Respondents shall proceed in accordance with EPA's final decision regarding the matter in dispute, regardless of whether Respondents agree with the decision.

#### XVII. FORCE MAJEURE

69. Respondents agree to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, a *force majeure* is defined as any event arising from causes beyond the control of Respondents, or of any entity controlled by Respondents, including, but not limited to, their contractors and subcontractors, that delays or prevents performance of any obligation under this Settlement Agreement despite Respondents'

best efforts to fulfill the obligation. The requirement that Respondents exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential *force majeure* event: (a) as it is occurring; and (b) following the potential *force majeure* event, such that the delay is minimized to the greatest extent possible. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

70. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondents shall notify EPA orally within two (2) days of when Respondents first knew that the event might cause a delay. Within five (5) days thereafter, Respondents shall provide to EPA in writing: an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure. Respondents shall be deemed to know of any circumstance of which Respondents, any entity controlled by Respondents, or Respondents' contractors knew or should have known.

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

#### XVIII. STIPULATED PENALTIES

72. If Respondents fail, without prior EPA approval, to comply with any of the requirements or time limits set forth in or established pursuant to this Settlement Agreement, and such failure is not excused under the terms of Paragraphs 69 through 71 above (Force Majeure), Respondents shall, upon demand by EPA, pay a stipulated penalty to EPA in the amount indicated below:

a. For all requirements of this Settlement Agreement, other than the timely provision of progress reports required by Paragraph 47.a., stipulated penalties shall accrue in the amount of \$1,000 per day, per violation, for the first seven days of noncompliance, \$2,000 per day, per violation, for the 8th through 15th day of noncompliance, \$3,000 per day, per violation, for the 16th through 25th day of noncompliance, and \$7,000 per day, per violation, for the 26th day of noncompliance and beyond.

b. For the progress reports required by Paragraph 47.a., stipulated penalties shall accrue in the amount of \$250 per day, per violation, for the first seven days of noncompliance, \$500 per day, per violation, for the 8th through 15th day of noncompliance, \$1,000 per day, per violation, for the 16th through 25th day of noncompliance, and \$2,000 per day, per violation, for the 26th day of noncompliance and beyond.

73. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 84, Respondents shall be liable for a stipulated penalty in the amount of \$300,000.

74. All penalties shall begin to accrue on the day after the complete performance is due, or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: a) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and b) with respect to a decision by the EPA Management Official at the Division Director level or higher, under Paragraph 68 of Section XVI (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

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

76. Respondents shall pay EPA all penalties accruing under this Section within 30 days of Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures under Section XVI (Dispute Resolution). All payments to EPA under this Section shall be made via EFT in accordance with the payment procedures in Paragraph 63 above.

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

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

79. If Respondents fail to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 72.

80. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue

of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by EPA), Paragraph 84. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

#### XIX. COVENANT NOT TO SUE BY EPA

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

#### XX. RESERVATION OF RIGHTS BY EPA

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

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

- a. claims based on a failure by Respondents to meet a requirement of this Settlement Agreement;

- b. liability for Future Response Costs exceeding \$200,000 and costs not included within the definition of Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release, or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred, or to be incurred, by the Agency for Toxic Substances and Disease Registry related to the Site.

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

#### XXI. COVENANT NOT TO SUE BY RESPONDENTS

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

- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
- b. any claim arising out of response actions at, or in connection with, the Site, including any claim under the United States Constitution, the State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or
- c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or payment of Future Response Costs; provided however, this Settlement Agreement shall not have any effect on claims or causes of action that Respondents have or may have against the United States or any of its agencies or departments, other than EPA, as responsible parties relating or referring to the Site.

86. Except as expressly provided in Section XXI, Paragraphs 89, 91, and 92 (*De Micromis*, *De Minimis* and Municipal Solid Waste ("MSW") Generators/Transporters Waivers), these



covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Subparagraphs 83(b), (c), and (e) - (g), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

87. Respondents reserve, and this Settlement Agreement is without prejudice to, claims against the United States subject to the provisions of Chapter 171 of Title 28 of the United States Code, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response actions, or the oversight or approval of Respondents' plans or activities. The foregoing applies only to claims that are brought pursuant to any statute other than CERCLA and for which the waiver of sovereign immunity is found in a statute other than CERCLA.

88. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

89. Respondents agree not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to the Work, including for contribution, against any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials.

90. The waiver in Paragraph 89 shall not apply with respect to any defense, claim or cause of action that a Respondent may have against any person meeting the above criteria, if such person asserts a claim or cause of action relating to the Site against such Respondent. This waiver also shall not apply to any claim or cause of action against any person meeting the above criteria, if EPA determines:

a. that such person has failed to comply with any EPA requests for information or administrative subpoenas issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e) or Section 3007 of RCRA, 42 U.S.C. § 6927, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site, or has been convicted of a criminal violation for the conduct to which this waiver would apply and that conviction has not been vitiated on appeal or otherwise; or

b. that the materials containing hazardous substances contributed to the Site by such person have contributed significantly, or could contribute significantly, either individually or in the aggregate, to the cost of response action or natural resource restoration at the Site.

91. Respondents agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) and 113 of CERCLA, 42 U.S.C. §§9607(a) and 9613) that they may have for all matters relating to the Work, against any person that enters into a final *de minimis* settlement under Section 122(g) of CERCLA, 42 U.S.C. § 9622(g), or a final settlement based on limited ability to pay, with EPA with respect to the Site. This waiver shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person if such person asserts a claim or cause of action relating to the Site against such Respondent.

92. Respondents agree not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to the Work, including for contribution, against any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of Municipal Solid Waste ("MSW") at the Site, if the volume of MSW disposed, treated or transported by such person to the Site did not exceed 0.2 percent of the total volume of waste at the Site.

93. The waiver in Paragraph 92 above shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person meeting the above criteria if such person asserts a claim or cause of action relating to the Site against such Respondent. This waiver also shall not apply to any claim or cause of action against any person meeting the above criteria, if EPA determines that: (a) the MSW contributed significantly, or could contribute significantly, either individually or in the aggregate, to the cost of the response action or natural resource restoration at the Site; (b) the person has failed to comply with any information request or administrative subpoena issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e) or Section 3007 of RCRA, 42 U.S.C. §6927, or (c) the person impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site.

## XXII. OTHER CLAIMS

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

95. Except as expressly provided in Section XXI, Paragraph(s) 89, 91, and 92 (*De Minimis*, *De Micromis*, and *MSW Waivers*), nothing in this Settlement Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a party to this Settlement Agreement. Except as provided in Paragraphs 89, 91, and 92, each Respondent expressly

reserves any and all rights (including, but not limited to, pursuant to Section 113 of CERCLA 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Respondent may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a party hereto. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

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

### XXIII. CONTRIBUTION PROTECTION

97. The Parties agree that this settlement constitutes an administrative settlement for purposes of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and that each Respondent is entitled, as of the Effective Date to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), or as may be otherwise provided by law, for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work and Future Response Costs.

### XXIV. INDEMNIFICATION

98. Respondents shall indemnify, save, and hold harmless the United States, its officials, agents, contractors, subcontractors, employees, and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondents agree to pay the United States all costs incurred by the United States, including, but not limited to, attorneys fees and other expenses of litigation and settlement, arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into, by, or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States.

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

100. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made, or to be made, to the United States, arising from, or on account of, any contract, agreement, or arrangement between any one or more of

Respondents and any person for performance of Work on, or relating to, the Site, including, but not limited to, claims on account of construction delays. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from, or on account of, any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on, or relating to, the Site.

## XXV. INSURANCE

101. At least five (5) days prior to commencing any on-Site Work under this Settlement Agreement, Respondents shall secure and shall maintain for the duration of this Settlement Agreement comprehensive general liability insurance and automobile insurance with limits of \$5 million dollars, combined single limit, naming the EPA as an additional insured. Within the same period, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above that is not maintained by such contractor or subcontractor.

## XXVI. FINANCIAL ASSURANCE

102. Within 30 days of the Effective Date as specified in Section XXVIII below, Respondents shall demonstrate their financial ability to complete the Work by submitting to EPA copies of one or more Respondents' most recent Annual Reports. Such Annual Reports shall demonstrate that Respondents have sufficient assets to perform the Work, which is valued by EPA at \$1,250,000. Each year thereafter, until the completion of the work, Respondents shall submit one or more Respondents' most recent Annual Reports to EPA within thirty (30) days of publication of such reports. In the event that EPA determines at any time that the financial assurances provided by the Annual Reports do not demonstrate Respondents' ability to complete the Work, then Respondents shall establish and maintain financial security in the amount needed to complete the Work, in one or more of the following forms:

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

b. One or more irrevocable letters of credit, payable to or at the direction of EPA, that is issued by one or more financial institution(s) (i) that has the authority to issue letters of credit

and (ii) whose letter-of-credit operations are regulated and examined by a U.S. Federal or State agency;

c. A trust fund established for the benefit of EPA that is administered by a trustee (i) that has the authority to act as a trustee and (ii) whose trust operations are regulated and examined by a U.S. Federal or State agency;

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

e. A demonstration by one or more Respondents that such Respondent meets the financial test criteria of 40 C.F.R. § 264.143(f) with respect to the Estimated Cost of the Work, provided that all other requirements of 40 C.F.R. § 264.143(f) are satisfied; and

f. A written guarantee to fund or perform the Work executed in favor of EPA by one or more of the following: (i) a direct or indirect parent company of a Settling Defendant, or (ii) a company that has a "substantial business relationship" (as defined in 40 C.F.R. § 264.141(h)) with at least one Settling Defendant; provided, however, that any company providing such a guarantee must demonstrate to the satisfaction of EPA that it satisfies the financial test requirements of 40 C.F.R. § 264.143(f) with respect to the Estimated Cost of the Work that it proposes to guarantee hereunder.

103. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 102, above. In addition, if at any time EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondents shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

104. If Respondents seek to ensure completion of the Work through a guarantee pursuant to Subparagraph 102(e) or 102(f) of this Settlement Agreement, Respondents shall: (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date, to EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the

current EPA cost estimate of \$1,250,000 for the Work at the Site shall be used in relevant financial test calculations.

105. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 102 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Respondents may change the form of financial assurance required hereunder only in accordance with a final decision resolving such dispute pursuant to Section XVI (Dispute Resolution).

106. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of financial assurance required hereunder only in accordance with a final decision resolving such dispute pursuant to Section XVI (Dispute Resolution).

#### XXVII. INTEGRATION/APPENDICES

107. This Settlement Agreement, its appendices, and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), etc. that will be developed pursuant to this Settlement Agreement and become incorporated into, and enforceable under, this Settlement Agreement constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement Agreement.

108. In the event of a conflict between any provision of this Settlement Agreement and the provisions of any document attached to this Settlement Agreement or submitted or approved pursuant to this Settlement Agreement, the provisions of this Settlement Agreement shall control.

109. The following documents are attached to and incorporated into this Settlement Agreement:

Appendix A is the SOW.

Appendix B is the ROD.

Appendix C is a map that generally depicts the Site.

## XXVIII. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

110. This Settlement Agreement shall be effective 5 days after the Settlement Agreement is signed by the Director of the Emergency and Remedial Response Division or his designee.

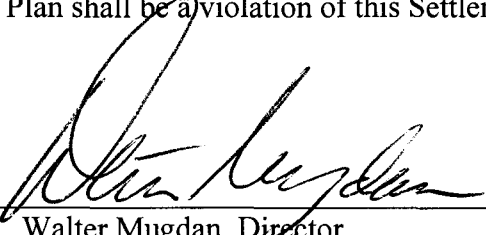
111. This Settlement Agreement may be amended by mutual agreement of EPA and Respondents. Amendments shall be in writing and shall be effective when signed by EPA. EPA RPM does not have the authority to sign amendments to the Settlement Agreement.

112. No informal advice, guidance, suggestion, or comment by EPA's RPM or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

## XXIX. NOTICE OF COMPLETION OF WORK

113. When EPA determines, after EPA's review of the Final RD Report, that all Work has been fully performed in accordance with the other requirements of this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including, payment of Future Response Costs or record retention, EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the Work Plan if appropriate to correct such deficiencies. Respondents shall implement the modified and approved Work Plan and shall submit the required deliverables. Failure by Respondents to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

By: \_\_\_\_\_

  
Walter Mugdan, Director  
Emergency and Remedial Response Division  
Region 2

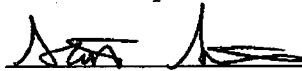
  
Date

In the Matter of the Mercury Refining Superfund Site, Administrative Settlement Agreement and Order, Index No. CERCLA-02-2009-2020

CONSENT

The Respondent identified below has had an opportunity to confer with EPA regarding this Settlement Agreement and Order. Respondent hereby consents to the issuance of this Settlement Agreement and Order and to its terms. The individual executing this Settlement Agreement and Order on behalf of the Respondent certifies under penalty of perjury under the laws of the United States that he or she is fully and legally authorized to agree to the terms and conditions of this Settlement Agreement and Order and to bind such Respondent thereto.

Brambles Environmental, Inc.  
Name of Respondent

  
Signature

9/22/09  
Date

Scott Smith  
Printed Name

Vice President  
Title of Signatory



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Eveready Battery Company, Inc.

Name of Respondent

David P. Rosenblatt  
Signature

9/22/09  
Date

David P. Rosenblatt

Printed Name

Attorney for Eveready Battery Company, Inc.

Title of Signatory

In the Matter of the Mercury Refining Superfund Site, Administrative Settlement Agreement and Order, Index No. CERCLA-02-2009-2020

CONSENT

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The Billette Company  
Name of Respondent

Margaret W. Devans  
Signature

Sept. 17, 2009  
Date

Margaret W. Devans  
Printed Name

Sr. Counsel  
Title of Signatory

In the Matter of the Mercury Refining Superfund Site, Administrative Settlement Agreement and Order, Index No. CERCLA-02-2009-2020

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National Grid  
Name of Respondent

David C. Lohmore  
Signature

9-25-09  
Date

DAVID C. LODMORE  
Printed Name

V.P. ENVIRONMENTAL  
Title of Signatory

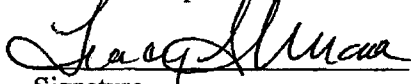
In the Matter of the Mercury Refining Superfund Site, Administrative Settlement Agreement and Order, Index No. CERCLA-02-2009-2020

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SPECTRUM BRANDS, INC.

Name of Respondent

  
Signature

September 18, 2009

Date

Tracy S. Wrycha

Printed Name

Division Vice President, Counsel to the Americas, Batteries and Personal Care  
Title of Signatory

In the Matter of the Mercury Refining Superfund Site, Administrative Settlement Agreement and Order, Index No. CERCLA-02-2009-2020

CONSENT

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Union Carbide Corporation  
Name of Respondent

Kenneth D. Isley  
Signature

18 September 2009  
Date

Kenneth D. Isley  
Printed Name

Representing Union Carbide Corporation  
Title of Signatory under Service Agreement

In the Matter of the Mercury Refining Superfund Site, Administrative Settlement Agreement and Order, Index No. CERCLA-02-2009-2020

CONSENT

The Respondent identified below has had an opportunity to confer with EPA regarding this Settlement Agreement and Order. Respondent hereby consents to the issuance of this Settlement Agreement and Order and to its terms. The individual executing this Settlement Agreement and Order on behalf of the Respondent certifies under penalty of perjury under the laws of the United States that he or she is fully and legally authorized to agree to the terms and conditions of this Settlement Agreement and Order and to bind such Respondent thereto.

Verizon New York Inc  
Name of Respondent

[Signature]  
Signature

9/24/09  
Date

SACQUEZAK McCoenick  
Printed Name

Director  
Title of Signatory

## **APPENDIX A**

**Statement of Work - Remedial Design**  
**Mercury Refining Superfund Site**  
**Towns of Colonie and Guilderland, Albany County, New York**

**I. WORK TO BE PERFORMED**

The objectives of the Work, as defined in Section III of the Remedial Design Administrative Order on Consent ("RD AOC"), to which this Statement of Work ("SOW") is attached, to be conducted at the Mercury Refining Superfund Site (the "Site") are to draft a Remedial Design ("RD") which, when implemented, will:

- Prevent or minimize potential future human exposures including ingestion and dermal contact with mercury-contaminated soils in excess of 5.7 parts per million (ppm);
- Prevent or minimize potential ingestion of mercury-contaminated groundwater and minimize mercury contamination in soils as a source of groundwater contamination at the facility; and
- Remediate mercury-contaminated sediments in the unnamed tributary to the Patroon Creek (the "Unnamed Tributary") to levels that are protective of the biota such that the most significant impacts are eliminated.

These objectives shall be met through implementation of the remedy selected in the Environmental Protection Agency's ("EPA's") Record of Decision ("ROD") at the Site issued on September 30, 2008, attached as Appendix B to the RD AOC. The Respondents shall finance and perform the Work in accordance with the RD AOC, the ROD, and this SOW, including all terms, conditions and schedules set forth herein or developed and approved hereunder.

Respondents shall accomplish these objectives using the principles of EPA Region 2's *Clean and Green Policy*. This policy may be found at: [http://epa.gov/region2/superfund/green\\_remediation/policy.html](http://epa.gov/region2/superfund/green_remediation/policy.html)[http://epa.gov/region2/superfund/green\\_remediation/policy.html](http://epa.gov/region2/superfund/green_remediation/policy.html).

The major components of the Selected Remedy for the Site are:

- Excavation and off-Site disposal of surface soils and subsurface soils above the water table from the Mercury Refining Property and its adjoining properties (*i.e.*, Albany Pallet and Box Company (Albany Pallet), Allied Building Products Corporation (Allied Building) and Diamond W. Products Incorporated (Diamond W.) which exceed the cleanup level for mercury in soil of 5.7 parts per million (ppm) for industrial property usage. These soils also include the soils associated with the stormwater sewer/catch basin systems. Verification sampling will be



performed to confirm the effectiveness of the remedy. Clean soil will be backfilled into the excavated areas.

- Solidification/Stabilization involving mixing or injection of treatment agents at the Mercury Refining and Allied Building properties to immobilize contaminants in surface soils, subsurface soils,<sup>1</sup> and soils below the water table where the groundwater has a dissolved mercury concentration which exceeds the cleanup level of 0.7 parts per billion (ppb) for mercury in groundwater. Pilot testing will be performed before treatment and verification sampling will be performed after treatment to confirm the effectiveness of the remedy in immobilizing contaminated soils and achieving groundwater standards.
- Imposition of institutional controls in the form of environmental easements/restrictive covenants to restrict future development/use of the Site. Specifically, environmental easements/restrictive covenants will be filed in the property records of Albany County. The easements/covenants will at a minimum: (a) limit the Site to industrial uses; (b) preserve the integrity of the existing clay cap on the southern portion of the Mercury Refining Property; (c) preserve the integrity of the solidified/stabilized mass; (d) prevent the excavation of soils which lay beneath the Phase 1 Building, which housed Mercury Refining's operations, and the Container Storage Building, which was used to store incoming mercury bearing material for processing, unless the excavation follows a Site Management Plan (see below); and (e) restrict the use of groundwater as a source of potable or process water until groundwater quality standards are met.
- Development and implementation of an EPA-approved Site Management Plan (SMP). The SMP, will, among other things, address long-term operation and maintenance (O&M) of the Site, and future excavation of soils including, but not limited to, soils beneath the Phase 1 and Container Buildings on the Mercury Refining Property, and soils on the Albany Pallet Property, the Allied Building Property, and the Diamond W. Property, which will not be remediated by this remedy, to insure that the soils are properly tested and handled to protect the health and safety of workers and the nearby community. The approved SMP will also require an evaluation of the potential for vapor intrusion at all existing buildings on-Site and/or those to be constructed in the future, and mitigation, if necessary, in compliance with the SMP. Finally, the SMP will provide for the proper management of all Site remedy components post-construction and shall include: (a) monitoring of groundwater to ensure that, following Site remediation, the contamination has attenuated and the groundwater has been remediated; (b) monitoring and maintenance of institutional controls; (c) a provision for operation and maintenance of the clay cap; (d) periodic certifications by the owners/operators of the Site properties or other party implementing the remedy that the institutional and engineering controls are in place; and (e) a provision to manage the demolition or alteration of the existing buildings on-Site, if such

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<sup>1</sup> This would include soils beneath the existing asphalt/concrete cap but not soils beneath the Container Storage Building or the existing clay cap.

demolition or alteration is required in the future, to protect the health and safety of the workers and the nearby community and to ensure proper disposal of any building debris.

- Removal, dewatering and disposal of the mercury-contaminated sediments in the Unnamed Tributary exceeding the cleanup level for mercury in sediments of 1.3 ppm.
- Verification sampling will be performed to confirm the effectiveness of the remedy.
- Sampling of the fish, surface water and sediments in the Patroon Creek, the Unnamed Tributary and the I-90 Pond to assess impacts on the biota on an annual basis for five years. Sampling thereafter will be based on the results of the five annual sampling rounds, as reported within the first five-year review. Should conditions change with regard to the I-90 Pond dam (i.e., the dam is repaired, removed, or if it should fail), EPA will evaluate the potential impact of any significant releases and, if necessary, take or require response actions to mitigate their potential impact.
- In accordance with CERCLA and because the remedy will result in contaminants remaining on-Site above levels that will allow for unlimited use and unrestricted exposure, the Site remedy will be reviewed at least once every five years.

## **II. PERFORMANCE STANDARDS**

The RD shall be designed to achieve compliance with the Performance Standards, which shall include and be consistent with the requirements set forth in the ROD. These Standards, expressed as clean up levels, are as follows:

- Excavate all surface soils and subsurface soils above the water table which have a concentration of mercury above 5.7 ppm;
- Minimize mercury contamination in soils as a source of groundwater contamination at the facility in subsurface soils in the aquifer where the groundwater has a dissolved mercury concentration which exceeds 0.7 ppb; and
- Remove, dewater and dispose of mercury-contaminated sediment in the Unnamed Tributary exceeding the cleanup level for mercury in sediment of 1.3 ppm.

### **III. PROJECT SUPERVISION/MANAGEMENT: SUPERVISING CONTRACTOR AND PROJECT COORDINATOR**

#### **Supervising Contractor**

The RD and any other technical work performed by Respondents pursuant to the RD AOC shall meet any and all requirements of applicable federal, state and local laws and be performed under the direction and supervision of a qualified licensed professional engineering firm. Within ten (10) calendar days after the Effective Date, as that term is defined in Section III of the RD AOC, Respondents shall notify EPA, in writing, of the name, title, proposed responsibilities and qualifications of the Supervising Contractor. All plans and specifications shall be prepared under the supervision of, and signed/certified by, a licensed New York professional engineer. Selection of the Supervising Contractor shall be subject to approval by EPA.

#### **Project Coordinator**

Within ten (10) calendar days after the Effective Date of the RD AOC, Respondents shall notify EPA, in writing, of the name and title of the Project Coordinator who may be an employee of the Supervising Contractor. The Project Coordinator shall be responsible for the day to day management of all Work to be performed pursuant to the RD AOC. The Project Coordinator shall have adequate technical and managerial experience to manage all Work described in this Statement of Work and under the RD AOC. The Project Coordinator shall be knowledgeable at all times about all matters relating to activities regarding the RD. The Project Coordinator shall be the primary contact for EPA on all matters relating to Work at the Site and should be available for EPA to contact during all working days. The Project Coordinator shall not be an attorney.

### **IV. PRE-REMEDIAL DESIGN AND REMEDIAL DESIGN ACTIVITIES**

The RD activities to be performed in the implementation of the selected remedy, as described above in the Work to be Performed Section for the Site include, but are not limited to, the following:

A. Sampling at the Site to characterize the extent of mercury-contaminated soils that exceed 5.7 ppm, the extent of mercury-contaminated groundwater that exceeds 0.7ppb dissolved mercury, and the extent of mercury-contaminated sediments which exceed 1.3 ppm.

B. Development of plans and specifications for the excavation and off-Site disposal of mercury-contaminated surface and subsurface soils which exceed 5.7 ppm.

- C. Development of plans and specifications for the removal, dewatering and off-Site disposal of mercury-contaminated sediments which exceed 1.3 ppm.
- D. Development of plans and specifications to backfill the areas of excavated soil and removed sediment.
- E. Development of plans and specifications for a treatability bench scale study for solidification/stabilization of surface and subsurface soils where the groundwater exceeds the cleanup level of 0.7 ppb for dissolved mercury in groundwater.
- F. Development of plans and specifications for pilot testing and full scale solidification/ stabilization of surface and subsurface soils below the water table where the groundwater has a dissolved mercury concentration which exceeds the cleanup level of 0.7 parts per billion (ppb) for mercury.
- G. Development of plans and specifications for the performance of air monitoring during construction/remedial activities at the Site to ensure that air emissions resulting from the activities meet applicable or relevant and appropriate air emission requirements.
- H. Development of plans to implement institutional controls that will: 1) limit the Site to industrial uses; 2) preserve the integrity of the existing clay cap on the southern portion of the Mercury Refining Property; 3) preserve the integrity of the solidified/stabilized mass; 4) prevent the excavation of soils which lay beneath the Phase 1 Building, and the Container Storage Building, unless the excavation follows the SMP (see I. below); and 5) restrict the use of groundwater.
- I. Development of a SMP, as specified above in the Work to be Performed Section and in the ROD, for long term O&M of the Site remedy. Specifically, the SMP shall address long-term O&M of the Site, and future excavation of soils, including, but not limited to, soils beneath the Phase 1 and Container Storage buildings on the Mercury Refining Property, and soils on the Albany Pallet Property, the Allied Building Property, and the Diamond W. Property, which will not be remediated by this remedy, to insure that the soils are properly tested and handled to protect the health and safety of workers and the nearby community. The SMP will also require an evaluation of the potential for vapor intrusion at all existing buildings on-Site and/or those to be constructed, and mitigation, if necessary, in compliance with the SMP. Additionally, the SMP will provide for the proper management of all Site remedy components post-construction and shall include: (a) monitoring of groundwater to ensure that, following Site remediation, the contamination has attenuated and the groundwater has been remediated; (b) monitoring and maintenance of institutional controls; (c) a provision for operation and maintenance of the clay cap; (d) periodic certifications by the owners/operators of the Site properties or other party implementing the remedy that the institutional and engineering controls are in place; and (e) a provision to

manage the demolition or alteration of the existing buildings on-Site, if such demolition or alteration is required in the future, to protect the health and safety of the workers and the nearby community and to ensure proper disposal of any building debris.

J. Development of Plans and Specification for sampling the fish, surface water and sediments in the Patroon Creek, the Unnamed Tributary and the I-90 Pond to assess impacts on the biota on an annual basis for five years. The Plans should also indicate how the five years of data will be evaluated to determine whether continued monitoring is necessary.

K. Development of a Green Remediation Plan ("GRP") that specifies how the RD and the Remedial Action ("RA") will be implemented using the principles in EPA Region 2's *Clean and Green Policy*.

## V. REMEDIATION DESIGN WORK PLAN

Within sixty (60) days of the date on which Respondents receive written notification from EPA of an authorization to proceed, Respondents shall submit a detailed RD Work Plan for the design of the selected remedy to EPA for review and approval. The RD Work Plan shall provide for bench scale testing of solidification/stabilization technology and the collection of all other data needed for performing the necessary RD activities (e.g. the Remedial Design Investigation).

The RD Workplan shall also include a GRP for implementing the RD work. An example of some of the items which could be specified for the design investigation field work may be found in EPA's "Green Site Assessment and Remediation checklist for Superfund Remedial Investigation/ Feasibility Study Activities," which is attached.

The Work Plan shall comply with CERCLA and relevant EPA guidance, including the EPA document entitled *Guidance on Oversight of Remedial Designs and Remedial Actions performed by Potentially Responsible Parties*, (OSWER directive 9355.5-01, EPA/540/g-90-001), dated April 1990 and *Superfund Remedial Design and Remedial Action Guidance*, dated June 1986, and other relevant EPA guidance documents.

The RD Work Plan shall include plans and schedules for implementation of RD tasks, and shall include, but not be limited to, the following items listed in V.A - D. below:

### A. Quality Assurance Project Plan

A Quality Assurance Project Plan ("QAPP") shall be prepared in accordance with the *Uniform Federal Policy for Implementing Quality*

*Systems* (UFP-QS), EPA-505-F-03-001, March 2005 or newer, *Uniform Federal Policy for Quality Assurance Project Plans* (UFP-QAPP), Parts 1, 2 and 3, EPA-505-B-04-900A, B and C, March 2005 or newer, and other guidance documents referenced in the aforementioned guidance documents. Amended guidelines shall apply only to procedures conducted after such guidelines are final. The QAPP shall include the following elements:

1. A detailed description of the sampling, analysis, and monitoring that shall be performed during the RD phase, which shall include the pre-RD, consistent with this SOW, the ROD, and the RD AOC. At a minimum, the QAPP shall provide a plan for sampling the surface and subsurface soils, the sediments, and the groundwater to define the specific limits of the contamination, for collecting the necessary data to properly conduct a bench-scale and pilot study for full-scale implementation of solidification/ stabilization technology at the Site, and for monitoring the surface water, the sediments and the fish in the Patroon Creek, Unnamed Tributary and the I-90 Pond to assess future impact on the biota after the mercury-contaminated sediment is removed from the unnamed Tributary.
2. All sampling, analysis, data assessment, and monitoring shall be performed in accordance with the guidance provided on EPA Region 2's Quality Assurance Homepage (<http://www.epa.gov/region02/qa/documents.htm>) or an alternate EPA-approved test method, and any updates thereto and the guidelines set forth in the RD AOC. All testing methods and procedures shall be fully documented and referenced to established methods or standards.
3. The QAPP shall also specifically include the following items:
  - a. An explanation of the way(s) the sampling, analysis, and monitoring will produce data for the RD phase;
  - b. A detailed description of the sampling, analysis, and testing to be performed, including sampling methods, analytical and testing methods, sampling locations and frequency of sampling;
  - c. A map(s) depicting sampling locations; and
  - d. A schedule for performance of specific tasks.
4. In the event that additional sampling locations and analyses are utilized or required, Respondents shall submit to EPA an addendum to the QAPP for approval by EPA.

5. In order to provide quality assurance and maintain quality control with respect to all samples to be collected, Respondents shall ensure the following:
- a. Quality assurance and chain-of-custody procedures shall be performed in accordance with standard EPA protocol and guidance, as provided on the Region 2 Quality Assurance Homepage referred to above, and the guidelines as set forth in the RD AOC.
  - b. All laboratories used for analysis of samples taken pursuant to this SOW and the RD AOC shall participate in an EPA or EPA-equivalent quality assurance/quality control (QA/QC) program. The laboratories should either be participating in the Contract Laboratory Program (CLP) or are currently accredited through the National Environmental Laboratory Program (NELAP), American Association for Laboratory Accreditation (A2LA), State or other Federal accrediting programs for the analyses to be performed with this investigation. The laboratories to be used must be specified in the QAPP.

For any analytical work performed at a non-CLP laboratory, including that done in a fixed laboratory, in a mobile laboratory, or in on-Site screening analyses, Respondents must submit to EPA a "Non-CLP Superfund Analytical Services Tracking System" form for each laboratory utilized during a sampling event, within thirty (30) days after receipt of the analytical results. Upon completion, such documents shall be submitted to the EPA Project Coordinator, with a copy of the form and transmittal letter to:

Regional Sample Control Center Coordinator  
EPA Region 2  
Division of Environmental Science & Assessment  
2890 Woodbridge Avenue, Bldg. 209, MS-215  
Edison, NJ 08837

- c. The laboratory utilized for analyses of samples shall perform all analyses according to accepted EPA methods as documented in the *Contract Lab Program Statement of Work for Inorganic Analysis*, (ILM05.3/ILM05.4) or the latest revision, or other EPA approved methods. Information on the Superfund Analytical Services/Contract Laboratory Program is available at <http://www.epa.gov/superfund/programs/clp/analytic.htm>.

d. Unless indicated otherwise in the approved QAPP, all data shall be independently validated upon receipt from the laboratory.

e. Unless indicated otherwise in the approved QAPP, submission of the validation package (checklist, report, and Form Is containing the final data) to EPA, shall be prepared in accordance with the provisions of Subparagraph i., below.

f. All analytical data that are validated as required by the QAPP shall be validated according to the procedures stated in the *EPA Region II Evaluation of Metals Data for the Contract Laboratory Program* (SOP #HW-2, Revision 13), dated September 2006 or the latest revision, or EPA-approved equivalent procedures. Region 2 Standard Operating Procedures are available at:  
<http://www.epa.gov/region02/qa/documents.htm><http://www.epa.gov/region02/qa/documents.htm>.

g. Unless indicated otherwise in the approved QAPP, all required deliverables shall be equivalent to CLP data packages from the laboratory for analytical data. Upon EPA's request, Respondents shall submit to EPA the full documentation (including raw data) for this analytical data. EPA reserves the right to perform an independent data validation, data validation check, or qualification check on generated data.

h. All contracts with laboratories utilized for analysis of samples shall include a provision which grants access to EPA personnel and authorized representatives of EPA for the purpose of ensuring the accuracy of laboratory results related to the Site.

i. Upon request, split or duplicate samples shall be allowed to be taken by EPA and the State or their authorized representatives. Respondents shall notify EPA not less than twenty-eight (28) days in advance of any sample collection activity unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondents to take split or duplicate samples of any samples it takes as part of EPA's oversight of Respondents implementation of the Work.

j. Submission to EPA of two (2) hard copies and one electronic copy of the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondents with respect to the Site and/or the implementation of the RD AOC within ten (10) days of the date when those results or data become available to Respondents, unless EPA agrees otherwise.



B. Health and Safety Contingency Plan

A. Health and Safety Contingency Plan ("HSCP") for all activities performed under the RD AOC shall be developed by Respondents to address the protection of public health and safety and the response to contingencies that could impact public health, safety, and the environment. The HSCP shall satisfy the requirements of the *Occupational Safety and Health Guidance for Hazardous Waste Site Activities*, (June 1990, DHHS NIOSH Publication No. 90-117), and the Occupational Safety and Health Administration, U.S. Department of Labor (OSHA) requirements cited below:

1. All Site activities shall be performed in such a manner as to ensure the safety and health of personnel so engaged. All Site activities shall be conducted in accordance with all pertinent general industry (29 CFR Part 1910) and construction (29 CFR Part 1926) OSHA standards, and EPA's *Standards Operating Safety Guides* (OSWER, 1988), as well as any other applicable State and municipal codes or ordinances. All Site activities shall comply with those requirements set forth in OSHA's final rule entitled *Hazardous Waste Operations and Emergency Response*, 29 CFR 1910.120, Subpart H.

2. The HSCP shall include, at a minimum, the following elements:

- a. Plans showing the location and layout of any temporary facilities, including the layout for the treatability test, to be performed on or near the Site;
- b. Description of the known hazards and evaluation of the risks associated with the Site and the potential health impacts related to the Site activities;
- c. List of key personnel and alternates responsible for Site safety, response operations, and protection of the public;
- d. Description of levels of protection (based on specified standards) to be utilized by all personnel;
- e. Delineation of Work, decontamination, and safe zones, and definitions of the movement of zones;
- f. Description of decontamination procedures for personnel and equipment, and handling and removal of disposable clothing or equipment;

g. Incidental emergency procedures which address emergency care for personnel injuries and exposure problems, and containment measures. These procedures shall include evacuation routes, internal and external communications procedures for response to fire, explosion, or other emergencies, the name of the nearest hospital and the route to that hospital. Local agencies with the capability to respond to emergencies shall be identified and their capabilities shall be described. A description of the procedures for informing the community of these measures shall be outlined.

h. Description of the personnel medical surveillance program in effect;

i. Description of monitoring for personnel safety;

j. Description of routine and special personnel training programs; and

k. Description of an air monitoring program to determine concentrations of airborne contaminants to which workers on-Site and persons near the Site boundary may be exposed. The results of work-zone air monitoring may be used as a trigger for implementing Site-boundary air monitoring, additional control measures, and/or cessation of work.

C. Treatability Study and Work Plan

A Treatability Study (TS) Work Plan shall be included in the Remedial Design Work Plan. The TS Work Plan shall describe the solidification/stabilization technology to be evaluated through bench scale testing. The TS Work Plan shall include a schedule for implementation of the TS, the test objectives, the equipment to be used, the testing procedures, the treatability conditions to be tested and the test performance measures. The TS Work Plan shall not be implemented until approved by EPA. The Preliminary Remedial Design Report, as discussed in Section VII below, shall include a section on the results of the TS which shall include a description of the tests including all test procedures and methods to be followed, all validated and unvalidated sample data and a description of how the tests results will be used to design a full-scale pilot test and implementation of the technology at the Site.

D. Description of Remedial Design Tasks

The RD Work Plan shall include a detailed description of all other RD tasks in Section IV., above, and Section V. to be performed, along with a

schedule for performance of those tasks. Such tasks shall include, at a minimum, the preparation of the RD Reports required by Section VII., below, and tasks necessary to ensure compliance with ARARs, as outlined herein and in the ROD. The RD Work Plan shall include an outline of the requirements of the RD Reports.

1. Access and Other Approvals

The RD Work Plan shall include descriptions of any approvals which Respondents will need to comply with the RD AOC, with the exception of those approvals needed from the EPA. This description shall detail how such approvals will be sought, and shall include a schedule for obtaining all necessary approvals. Such approvals shall include the consent of owners of property at or near the Site regarding access to conduct sampling, monitoring, remediation, restoration or other activities, in accordance with the RD AOC, and approval from any off-Site facility accepting waste materials from the Site. This description shall be amended if subsequent approvals are required.

2. Remedial Design Schedules, Draft Schedule for Remedial Action, and Monitoring

The RD Work Plan shall include a schedule covering all RD activities, including but not limited to submission, EPA approval and implementation of the QAPP, HSCP, and TS Work Plan, and submittal of the RD Reports listed in Section VII., below. The RD Work Plan shall also include a draft schedule for RA and monitoring activities. The schedule shall be in the form of a task/subtask activity bar chart or critical path method sequence of events.

3. The draft schedule for RA and monitoring activities may be revised during the remedial process, subject to the EPA's approval.

4. The RD schedule shall provide for completion and submittal to EPA of a Remedial Design Delineation Report within four (4) months of EPA's written notification of approval of the RD Work Plan. The RD schedule shall provide for completion and submittal to EPA of the Final RD Report within five (5) months of EPA's written notification of approval of the Remedial Design Delineation Report.

5. The draft schedule for the RA shall provide for completion and submittal to EPA of the Final RA Report within twelve

(12) months of EPA's written notification of approval of the RA Work Plan.

**VI. APPROVAL OF REMEDIAL DESIGN WORK PLAN**

EPA will either approve the RD Work Plan or require modification of such plan, in accordance with the procedures set forth in Section IX of the RD AOC. Respondents shall implement the EPA-approved RD Work Plan in accordance with the schedules contained therein.

**VII. REMEDIAL DESIGN**

Respondents shall perform the RD activities in conformance with the RD Work Plan approved by EPA and within the time frames specified in the RD schedule contained therein. The RD shall include the preparation of a Pre-Remedial Design Delineation Report, and Preliminary and Final RD Reports.

**A. Pre-Remedial Design Delineation Report**

Within forty-five (45) days of the date the validated Pre-RD soil, sediment and groundwater sampling results become available to the Respondents, the Respondents shall submit to EPA a report which delineates the volume of contaminated surface soils and subsurface soils which are above the water table and which exceed the cleanup level of 5.7 ppm for mercury in soil, the volume of surface soils, subsurface soils and soils below the water table where the groundwater has a dissolved mercury concentration above the cleanup level of 0.7 ppb for mercury in the groundwater and the volume of sediments in the Unnamed Tributary which exceed the cleanup level of 1.3 ppm for mercury in sediments.

**B. Preliminary and Final Remedial Design Reports**

The reports shall be submitted to the EPA and NYSDEC in accordance with the schedule set forth in the approved RD Work Plan. Each RD report shall include a discussion of the design criteria and objectives, with emphasis on the capacity and ability to meet design objectives successfully. Each report shall also include the plans and specifications that have been developed at that point in time, along with a design analysis. The design analysis shall provide the rationale for the plans and specifications, including results of the TS test, all other sampling and testing performed, supporting calculations and documentation of how these plans and specifications will meet the requirements of the ROD and shall provide a discussion of any impacts these findings may have on the

RD. The design reports shall also include the following items (to the extent that work has been performed regarding the items):

1. A technical specification for photographic documentation of the remedial construction work;
2. A discussion of the manner in which the RA will achieve the Performance Standards;
3. A plan for obtaining institutional controls (*i.e.*, deed restrictions);
4. A draft schedule for RA activities, and a preliminary schedule for operation and monitoring activities and;
5. A GRP which describes how the RA will be performed in accordance with EPA Region 2's *Clean and Green Policy*.

C. Additional Preliminary Remedial Design Report Requirements

The preliminary RD report shall include: a section on the TS (see V.C. above), the design criteria, a discussion and evaluation of the RD activities listed under Section IV., above, and their results, preliminary design drawings showing general arrangement of all RA work planned, and, to the extent available, items D.1. and D.2 below.

D. Additional Final Remedial Design Report Requirements

The final RD report shall include final plans and specifications, and, shall also include:

1. A discussion of the manner in which the design activities detailed in Section IV., above, for the RA are considered in the design;
2. Table of Contents, as necessary, for the specifications, including a listing of items from the Construction Specifications Institute master format that are expected to be included in the construction specifications. This master format is presented in the Construction Specifications Institute's *Manual of Practice*, 1985 edition, available from the Construction Specifications Institute, 601 Madison Street, Alexandria, Virginia 22314;
3. Engineering plans representing an accurate identification of existing Site conditions and an illustration of the work proposed. Typical items to be provided on such drawings include, at a minimum, the following:

- a. Title sheet including at least the title of the project, a key map, the name of the designer, date prepared, sheet index, and EPA/NYSDEC Project identification;
- b. All property data including owners of record for all properties within 200 feet of the Site;
- c. A Site survey including the distance and bearing of all property lines that identify and define the project Site;
- d. All easements, rights-of-way, and reservations;
- e. All buildings, structures, wells, facilities, and equipment (existing and proposed) if any;
- f. A topographic survey, including existing and proposed contours and spot elevations for all areas that will be affected by the remedial activities, based on U.S. Coast and Geodetic Survey data;
- g. All utilities, existing and proposed;
- h. Location and delineation of all significant natural features including, *inter alia*, wooded areas, water courses, wetlands and depressions;
- i. Flood hazard data and 100-year and 500-year flood plain delineation;
- j. North arrow, scale, sheet numbers and the person responsible for preparing each sheet;
- k. Decontamination areas, staging areas, borrow areas and stockpiling areas;
- l. Miscellaneous detail sheets;
- m. Definitions of all symbols and abbreviations;
- n. A specification for a sign at the Site. The sign should describe the project, the name of the contractor performing the RD/RA work or the PRP Group, state that the project is being performed under EPA oversight, and provide EPA contact for further information;

- o. Site security measures;
  - p. Roadways; and
  - q. Electrical, mechanical, and/or structural plans, as required.
4. Survey work that is appropriately marked, recorded and interpreted for mapping, property easements and design completion;
  5. Drawings, as necessary, of all proposed equipment, improvements, details and all other construction and installation items to be developed in accordance with the current standards and guidelines of the State of New York. Drawings shall be of standard size, approximately 24" x 36". A list of drawing sheet titles will be provided;
  6. Any value engineering proposals;
  7. An O&M Plan which shall include all elements of the SMP. The O&M Plan shall be prepared in accordance with the Superfund Remedial Design and Remedial Action Guidance, OSWER Directive 9355.0-4A. The O&M Plan shall also include, but not be limited to, the following:
    - a. a description of the personnel requirements, responsibilities, and duties, including a discussion for training and lines of authority;
    - b. a description of all construction-related sampling, analysis, and monitoring to be conducted under the RD AOC; and
    - c. a description of all RA-related monitoring requirements.
    - d. a description of how the O&M will be performed in accordance with EPA Region 2's *Clean and Green Policy*.
  8. A draft Construction Quality Assurance Project Plan ("CQAPP"), which shall detail the approach to quality assurance during construction activities at the Site. The CQAPP shall address sampling, analysis, and monitoring to be performed during the remedial construction phase of the Work. Quality assurance items to be addressed include, at a minimum, the following:
    - a. Inspection and certification of the Work;
    - b. Measurement and daily logging;

- c. Field performance and testing;
- d. Post-construction drawings; and
- e. Testing of the RA Work (*e.g.*, post-excavation and treatment sampling) to establish whether the design specifications have been attained.

The final QAPP shall specify a quality assurance official (QA Official) and an independent of the RA Contractor to conduct a quality assurance program during the construction phase of the project.

- 9. A report describing those efforts made to secure access and institutional controls and obtain other approvals and the results of those efforts (see Section V.D., above). Legal descriptions of property or easements to be acquired shall be provided, along with the final engineer's construction cost estimate.
- 10. The GRP, which shall describe how the RA will be performed in accordance with EPA Region 2's *Clean and Green Policy*.
- 11. A plan for implementation of construction and construction oversight, including any GRP requirements.
- 12. A method for selection of the construction contractor(s).
- 13. A final engineer's construction cost estimate.
- 14. A proposed schedule for implementing all of the above.

#### **VIII. APPROVAL OF REMEDIAL DESIGN REPORTS**

- A. EPA will review and comment on the RD Reports in accordance with Section IX of the RD AOC. Respondents shall make those changes required by EPA's comments/modifications in accordance with the procedures set forth in Section IX of the RD AOC.
- B. Changes required by EPA's comments on the Preliminary RD Report shall be made in the Final RD Report.
- C. EPA will either approve the Final RD Report or require modifications, in accordance with the procedures set forth in Section IX of the RD AOC.





## **EPA Region 2**

### **Green Site Assessment and Remediation Checklist**

#### **Superfund Remedial Investigation/Feasibility Study Activities**

In accordance with EPA's strategic plan for compliance and environmental stewardship, the Agency strives for cleanup programs that use natural resources and energy efficiently, reduce negative impacts on the environment, minimize or eliminate pollution at its source, and reduce waste to the greatest extent possible. The EPA Region 2 Superfund Program supports the adoption of "green site assessment and remediation," which can be defined as the practice of considering all environmental effects of remedy selection and implementation, and incorporating strategies to maximize the net environmental benefit of cleanup actions.<sup>1</sup> This definition encompasses each phase of a project, from investigation through remediation and restoration. Opportunities to green a project exist through consideration of the following key variables.<sup>2</sup>

- Water Use
- Land Use
- Energy Use
- Air Emissions, Including Greenhouse Gas Emissions
- Land Use/Ecosystem Impact
- Materials Use and Waste Produced
- Long-term Maintenance

An optimal phase in which to start considering these actions is during the Remedial Investigation/Feasibility Study (RI/FS) phase of a cleanup. Best practices of green remediation can be incorporated throughout the RI/FS phase, and, to maximize sustainability, cleanup and reuse options should be considered early during the planning process, enabling best practices to carry forward to cleanup activities, redevelopment activities, and ultimate land reuse. Incorporation of green remediation strategies into cleanup procurement documents and site management plans helps to open the door for best practices in the field. In accordance with federal procurement policy, selection of cleanup equipment and services must meet a project's performance and cost requirements, while giving preference to green products and providers.<sup>3,4</sup>

Best practices of green remediation help ensure that day-to-day operations during all cleanup phases maximize opportunities to preserve and conserve natural resources, while achieving the cleanup's mission of protecting human health and the environment. Each site should incorporate practices addressing core elements of green remediation, with periodic review and update as new opportunities arise. An adaptive approach to managing all phases of a site cleanup enables the site to transition directly into long-term stewardship status. Each site should outline site-specific procedures to, among other things:

- Reduce air emissions (including greenhouse gas emissions) and energy use,
- Demonstrate water-quality preservation and resource conservation,
- Establish near-term improvements to the ecosystem that carry forward into site revitalization, and
- Reduce material consumption and waste generation.

This checklist is designed to assist EPA contractors and Remedial Project Managers in planning for and implementing green practices during the RI/FS. Future checklists will provide guidance during the remedy implementation, restoration, and long-term maintenance phases.

## ADMINISTRATIVE

- **Incorporate green remediation practices into the contracting process, as possible**
  - ☐ Require the use of innovative approaches during the RI
  - ☐ Require contractors follow Region 2's Clean and Green Policy
  - ☐ Suggest contractors consider green remediation best practices during RI/FS
  - ☐ Require contractors to follow guidelines found in the NEDC Model Contract Specification for Diesel Emission Controls in Construction Projects <sup>5</sup>
- **Consider future use at beginning of project to guide investigation and remedy selection**
  - ☐ Future use may guide type of sampling required; ensure that it is most efficient and green method
  - ☐ Encourage development of renewable energy production facilities on contaminated lands
- **Reporting and Communication**
  - ☐ Interim and final documents should be submitted in digital rather than hardcopy format, unless otherwise requested by EPA, in an effort to save paper. This is especially applicable to voluminous data reports, such as the validation metadata for laboratory analyses.

## GENERAL ON-SITE OPERATIONS

- **Encourage sustainable practices in trailers/buildings**
  - ☐ Utilize existing building for field office if possible
  - ☐ Situate trailer to benefit from existing vegetation
  - ☐ Utilize "green" trailers if possible <sup>6, 7</sup>
  - ☐ Maintain heating and cooling systems
  - ☐ Enhance indoor environmental quality <sup>8</sup>
  - ☐ Optimize operational and maintenance practices to increase efficiency <sup>9</sup>
- **Minimize non-renewable energy consumption <sup>10, 11, 12, 13, 14</sup>**
  - ☐ Purchase renewable energy supply through local utility programs
  - ☐ Purchase Renewable Energy Credits/Certificates (RECs or Green Tags)
  - ☐ Research potential for Green Pricing Programs and Power Purchase
  - ☐ Utilize renewable Onsite Generation Systems, e.g., solar photovoltaic (PV), wind turbines, and biomass combustion
- **Use environmentally preferable products**
  - ☐ Compact Fluorescent Lights (CFL)
  - ☐ Environmentally friendly electronics (e.g., ENERGY STAR) <sup>15</sup>

- **Use environmentally preferable products (*continued*)**
  - ☐ Recycled products
  - ☐ Avoid use of pesticides where feasible and follow EPA's Integrated Pest Management 16
- **Encourage sustainable practices by individuals**
  - ☐ Minimize waste 17
  - ☐ Reuse or recycle waste
  - ☐ Protect and conserve water
  - ☐ Use alternative fuel vehicles (hybrid-electric, biodiesel, ultra-low sulfur diesel) 18
  - ☐ Carpool 19
  - ☐ Schedule activities efficiently so as to minimize travel to and from the site

## **FIELD INVESTIGATIONS**

- **Mobilization**
  - ☐ Use fuel-efficient / alternative fuel vehicles and equipment 18
  - ☐ Use diesel engines that meet the most stringent EPA onroad emissions standards available upon time of project's implementation or utilize EPA or CARB verified emission control technology to reduce PM emissions by a minimum of 85% when technologically feasible on all onroad diesel engines. 20
  - ☐ Use existing roadways where available
  - ☐ Avoid environmentally sensitive areas and cutting native trees/vegetation when placing trailers and storage areas, and while building access
  - ☐ Provide for erosion and sediment control to minimize runoff into environmentally sensitive areas
  - ☐ Use recycled material for building roadways 21, 22, 23
  - ☐ Revegetate areas if necessary
- **Demolition of on-site structures**
  - ☐ Minimize demolition of structures and buildings
  - ☐ Recycle demolition and construction material as possible 21, 22, 23
- **Field Screening**
  - ☐ Use non-invasive technologies where possible for subsurface characterization to minimize wastes (Electrical Resistivity Tomography, Borehole Radar Tomography, Ground Penetrating Radar, Seismic Refraction/Reflection, Electromagnetic Survey). 24, 25, 26
  - ☐ Incorporate systematic planning, dynamic work strategies, and real-time measurements into work plans (TRIAD) to promote efficiency in remedial investigations. 27

▪ **Field Screening (*continued*)**

- ☐ Minimize number of field mobilizations
- ☐ Minimize number of samples sent to laboratories
- ☐ Use of mobile laboratories
- ☐ Use of alternate fuel sources

▪ **Drilling**

- ☐ Have idle reduction policy and idle reduction devices installed on machinery 28
- ☐ Use ultra-low sulfur diesel and/or fuel-grade biodiesel as fuel 29, 30, 31, 32, 33, 34
- ☐ Use diesel engines that meet the most stringent EPA Tier non-road emissions standards available upon time of project's implementation or utilize EPA or CARB verified emissions by a minimum of 85% when technologically feasible on all non-road diesel vehicles. 35
- ☐ Engine Maintenance 36
  - ☐ Perform routine inspections
  - ☐ Conduct preventative maintenance
  - ☐ Give problems immediate attention
  - ☐ Perform routine cleaning
  - ☐ Use environmentally friendly lubricants if applicable
- ☐ Decontamination
  - ☐ Place decon station away from environmentally sensitive areas
  - ☐ Use secondary containment to avoid cross contamination
  - ☐ Use steam cleaning where allowed by federal/state/or local regulations
  - ☐ Use non-phosphate detergents
- ☐ Well Installation
  - ☐ Use recycled well materials where possible (well caps, etc.)
  - ☐ Manage use of cement/grout to minimize waste produced
  - ☐ Ensure wells are properly developed to increase efficiency
- ☐ Waste Management
  - ☐ Use direct-push rig if applicable to minimize drill cuttings
  - ☐ Place drill cuttings back in boring if applicable
  - ☐ Store drill cuttings away from surface water bodies to prevent cross-contamination
  - ☐ Dispose of drill cuttings at recycling facility if possible

▪ **Sampling**

☐ General practices

- ☐ Use environmentally friendly PPE if applicable
- ☐ Use recycled laboratory containers if applicable
- ☐ Use laboratories which promote green chemistry
- ☐ Schedule sampling to minimize field visits and shipping
- ☐ Consider all data needs for any potential future uses

☐ Soil Sampling

- ☐ Use sampling methods that require smaller amounts of soil to minimize waste
- ☐ Dispose of waste properly to avoid cross contamination
- ☐ Recycle soil waste if available

☐ Groundwater sampling

- ☐ Use passive groundwater samplers where applicable 37, 38
- ☐ Use eco-friendly bailers 39
- ☐ Use dedicated equipment to minimize waste and cross-contamination
- ☐ Use remote data collection to minimize mobilizations
- ☐ Treat and recycle purged water on-site

☐ Surface Water sampling

- ☐ Choose sampling locations that minimize ecological disturbance
- ☐ Use dedicated sampling equipment to minimize waste and cross-contamination
- ☐ Decontaminate equipment away from surface water body to avoid contamination due to runoff

**TREATABILITY INVESTIGATIONS/FEASIBILITY STUDIES**

▪ **Treatability Investigations (Bench-Scale, Pilot-Scale)**

- ☐ The evaluation of laboratory sub-contractors should include their commitment to green chemistry. The purpose is to reduce the amount and toxicity of chemicals used and required to be disposed. 40, 41

▪ **Analysis of Alternatives in the FS and Green Remediation Best Management Practices (BMPs)**

- ☐ Evaluate "net environmental benefit as part of the nine criteria review process 2
  - ☐ Consider future use of site in determining the short and long-term effectiveness of the remedy
  - ☐ If one remedy has a vendor within the state but another remedy will require shipping equipment from another region, then the first remedy is more easily implementable AND may have a lower environmental footprint (through reduced transportation).

**EPA Region 2**  
**Green Site Assessment and Remediation Checklist**  
**Superfund Remedial Investigation/Feasibility Study Activities**

■ **Analysis of Alternatives in the FS and Green Remediation Best Management Practices (BMPs)**  
**(continued)**

- ☐ Incorporate green remediation best practices for each remedy considered as part of cost evaluation
- ☐ Evaluate water intensity (amount of water necessary to remove one pound of contamination) <sup>2</sup>
  - ☐ Focus on minimizing high quality fresh water use
  - ☐ Assess the use of reclaimed water where applicable, e.g., for irrigation
  - ☐ Use native vegetation that requires little or no irrigation
  - ☐ Minimize use of fertilizer, pesticides, herbicides, and other chemicals to prevent nutrient loading and toxicity impacts to nearby water bodies
- ☐ Evaluate energy efficiency (amount of energy necessary to remove one pound of contaminant) of each alternative over the projected lifecycle of the alternative. <sup>2, 42</sup>
  - ☐ Incorporate green remediation best practices for each remedy considered as part of cost evaluation
  - ☐ Analyze the feasibility of alternate energy sources for the required energy, e.g., solar, wind, biodiesel, etc
  - ☐ Evaluate low-energy remedial alternatives, e.g., MNA, phytoremediation, micro-bioremediation, etc.; low energy use will be one of the factors weighed against the projected time for remediation
  - ☐ Assess the best estimate of the cost of the energy projected out 30 years
- ☐ Evaluate water intensity (amount of water necessary to remove one pound of contamination) <sup>2</sup>
  - ☐ Focus on minimizing high quality fresh water use
  - ☐ Assess the use of reclaimed water where applicable, e.g., for irrigation
  - ☐ Use native vegetation that requires little or no irrigation
  - ☐ Minimize use of fertilizer, pesticides, herbicides, and other chemicals to prevent nutrient loading and toxicity impacts to nearby water bodies
- ☐ Evaluate soil intensity of each alternative (amount of soil necessary to be displaced or disturbed to remove one pound of contaminant) <sup>2</sup>
- ☐ Evaluate material intensity of each alternative (amount of raw materials extracted, processed, or disposed for each pound of contaminant treated) <sup>2</sup>
- ☐ Consider Green Remediation Best Management Practices for site restoration
  - ☐ Low-Impact Development (LID) - stormwater management <sup>43</sup>
  - ☐ Ecorestoration (increased wildlife habitat, increased carbon sequestration, protection of water resources, etc).
  - ☐ Greenscaping <sup>44</sup>
  - ☐ Encourage development of renewable energy production facilities on contaminated lands

## REFERENCES

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