

EPA ENFORCEMENT ACCOUNTS RECEIVABLE CONTROL NUMBER FORM FOR ADMINISTRATIVE ACTIONS

This form was originated by Wanda I. Santiago for William Chin 9/30/11
Name of Case Attorney Date

in the ORC (RAA) at 918-1113
Office & Mail Code Phone number

Case Docket Number ACRA-01-2011-0051

Site-specific Superfund (SF) Acct. Number _____

This is an original debt This is a modification

Name and address of Person and/or Company/Municipality making the payment:

U.S. Environmental Protection Agency
Atlantic Ecology Division Laboratory
27 Tarzwell Drive
Narragansett, RI 02882

Total Dollar Amount of Receivable \$ 30,442 Due Date: 3/28/12

SEP due? Yes No Date Due _____

Installment Method (if applicable)

INSTALLMENTS OF:

- 1ST \$ _____ on _____
- 2nd \$ _____ on _____
- 3rd \$ _____ on _____
- 4th \$ _____ on _____
- 5th \$ _____ on _____

For RHC Tracking Purposes:

Copy of Check Received by RHC _____ Notice Sent to Finance _____

TO BE FILLED OUT BY LOCAL FINANCIAL MANAGEMENT OFFICE:

IFMS Accounts Receivable Control Number _____

If you have any questions call: _____
in the Financial Management Office Phone Number



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

September 30, 2011

Via Hand Delivery

Wanda I. Santiago
Regional Hearing Clerk
U.S. EPA, Region 1
5 Post Office Square - Suite 100
Mail Code: ORA18-1
Boston, MA 02109-3912

RE: *In the Matter of: U.S. Environmental Protection Agency, Atlantic Ecology
Division Laboratory*
Docket No. RCRA-01-2011-0051

Dear Ms. Santiago:

I enclose for filing in the above-referenced matter the original and one copy of the Consent Agreement and Final Order and a Certificate of Service.

Thank you for your assistance.

Sincerely,

A handwritten signature in black ink that reads "William D. Chin".

William D. Chin
Enforcement Counsel

Enclosures

cc: Stephen B. Hess, Esq.

In the Matter of: U.S. EPA, Atlantic Ecology Division Laboratory
Docket No. RCRA-01-2011-0051

CERTIFICATE OF SERVICE

I hereby certify that I caused the foregoing Consent Agreement and Final Order to be sent to the following person(s), in the manner stated, on the date below:

Original and one copy,
By Hand Delivery:

Wanda I. Santiago
Regional Hearing Clerk
U.S. EPA, Region 1
5 Post Office Square - Suite 100
Mail Code: ORA18-1
Boston, MA 02109-3912

One copy, By Pouch Mail:

Stephen B. Hess, Esq.
U.S. EPA, Office of General Counsel
Mail Code: 2399A
1200 Pennsylvania Ave., N.W.
Room 7426 C
Washington, D.C. 20460

Dated: _____

9/30/11

William D. Chin

William D. Chin
Enforcement Counsel
U.S. EPA, Region 1
5 Post Office Square – Suite 100
Mail Code: OES04-4
Boston, MA 02109-3912

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1

RECEIVED

2011 SEP 30 A 9:45

In the Matter of:)
)
U.S. Environmental Protection Agency)
Atlantic Ecology Division Laboratory)
27 Tarzwell Drive)
Narragansett, RI 02882)
)
Respondent.)
)

Docket No.

RCRA-01-2011-0051

EPA ORC
OFFICE OF
REGIONAL HEARING CLERK

CONSENT AGREEMENT AND
FINAL ORDER

CONSENT AGREEMENT

Introduction

1. This Consent Agreement and Final Order (collectively referred to as the "CAFO") is entered into by the Legal Enforcement Manager, Office of Environmental Stewardship, U.S. Environmental Protection Agency ("EPA"), Region 1 ("Complainant") and the U.S. Environmental Protection Agency, Atlantic Ecology Division Laboratory ("AED" or "Respondent"), pursuant to Sections 3008 (a) and 6001(b) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6928(a) and 6961(b), and EPA's "Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Issuance of Compliance or Corrective Action Orders, and the Revocation, Termination or Suspension of Permits," 40 C.F.R. Part 22, including, but not limited to, 40 C.F.R. §§ 22.13(b) and 22.18(b)(2) and (3).

2. Sections 3008 and 6001 of RCRA, 42 U.S.C. §§ 6928 and 6961, authorize EPA to commence an administrative enforcement action assessing a civil penalty against any department, agency, or instrumentality of the executive, legislative, or judicial branch

of the Federal Government for a violation of any requirement of RCRA and its implementing regulations. Pursuant to 40 C.F.R. § 22.13(b), the issuance of this CAFO will simultaneously commence and resolve an administrative enforcement action in which Complainant alleges that Respondent has violated Sections 3002 and 3005 of RCRA, 42 U.S.C. §§ 6922 and 6925, 40 C.F.R. Parts 262, 265 and 273, Chapter 23-19.1 of the Rhode Island General Laws, and the Rhode Island Consolidated Rules and Regulations for Hazardous Waste Management, Rules 1.00 through 17.00 (“RI Rules”).

Statutory and Regulatory Authority

3. Complainant takes this action under the authority of Sections 3008(a) and (g) and 6001(b) of RCRA, 42 U.S.C. §§ 6928(a) and (g) and 6961(b) , to obtain compliance with RCRA and the hazardous waste regulations promulgated to implement RCRA and to seek civil penalties for violations of RCRA and its implementing regulations.

4. Pursuant to Section 3008(a) (2) of RCRA, 42 U.S.C. § 6928(a) (2), notice of this action has been given to the State of Rhode Island and Providence Plantations.

5. RCRA was enacted on October 21, 1976, and amended thereafter by, among other things, the Hazardous and Solid Waste Amendments of 1984 (“HSWA”).

Subchapter III of RCRA establishes a comprehensive federal regulatory program for the management of hazardous waste. See 42 U.S.C. §§ 6921-6939e. Pursuant to Subchapter III of RCRA, EPA has promulgated regulations that set forth standards and requirements applicable to generators and transporters of hazardous waste, as well as standards and requirements that are applicable to owners and operators of facilities that treat, store, dispose of hazardous waste. These regulations are codified at 40 C.F.R. Parts 260-271.

6. Pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926, EPA may authorize a state to administer the RCRA hazardous waste program in lieu of the federal program when EPA deems the state program to be substantially equivalent to the federal program.

7. On January 30, 1986, EPA granted the State of Rhode Island final authorization to administer its hazardous waste management program in lieu of the federal hazardous waste management program. See 51 Fed. Reg. 3780 (January 30, 1986). Updates to the Rhode Island hazardous waste management program were authorized by EPA on March 12, 1990, effective March 26, 1990; March 6, 1992, effective May 5, 1992; October 2, 1992, effective December 1, 1992; August 9, 2002, effective October 8, 2002; and December 11, 2007, effective February 11, 2008; and on July 26, 2010, effective September 24, 2010. The authority for the Rhode Island hazardous waste program is set out at Chapter 23-19.1 of the Rhode Island General Laws, with implementing regulations promulgated as RI Rules 1.00 through 17.00. For purposes of this action, EPA Region 1 is enforcing the applicable RI Rules that were authorized by EPA on December 11, 2007, effective February 11, 2008.

8. Because EPA has not yet authorized the State of Rhode Island to implement some HSWA portions of the federal RCRA program, there is a dual State/Federal RCRA program in Rhode Island. State law governs the base hazardous waste program, but EPA has exclusive jurisdiction to implement and enforce the HSWA of 1984 requirements for which the State of Rhode Island is not authorized.

9. Pursuant to Sections 3006(g) and 3008(a) and (g) of RCRA, 42 U.S.C. §§ 6926(g) and 6928(a) and (g), EPA may enforce the federally approved State of Rhode Island hazardous waste program, as well as the federal regulations promulgated pursuant

to HSWA, by issuing an order assessing a civil penalty for any past or current violation of RCRA and requiring immediate compliance. Section 3006 of RCRA, 42 U.S.C. § 6926, as amended, provides that, among other things, authorized state hazardous waste programs are carried out under Subtitle C of RCRA. Therefore, a violation of any requirement of law under an authorized state hazardous waste program is a violation of a requirement of Subchapter C of RCRA.

10. Section 3008(a) of RCRA provides that upon finding that any person has violated or is violating any requirement of Subchapter C of RCRA, including violations in an authorized state, EPA may issue an order requiring compliance immediately or within a specified time and assessing a civil penalty for any past or current violation. Sections 3008(a) and (g) of RCRA provide that any person who violates any order or requirement of Subchapter C of RCRA shall be liable to the United States for a civil penalty in an amount of up to \$25,000 per day for each violation. Pursuant to the Debt Collection Improvement Act of 1996 (“DCIA”), 31 U.S.C. § 3701 *et seq.*, as well as 40 C.F.R. Part 19, the inflation-adjusted civil penalty for a violation of Subchapter III of RCRA is up to \$32,500 per day per violation for violations that occurred after March 15, 2004 and before January 13, 2009. Violations that occur on or after January 13, 2009 are subject to penalties up to \$37,500 per day per violation.

11. Pursuant to Section 6001(a) of RCRA, 42 U.S.C. § 6961(a), each department and agency of the Federal Government engaged in any activity resulting, or which may result, in the disposal or management of solid waste or hazardous waste is subject to, and must comply with, all Federal and State requirements for solid waste or hazardous waste disposal and management, including all administrative orders and all civil and

administrative penalties. Pursuant to 6001(b) of RCRA, 42 U.S.C. § 6961(b), EPA may commence an administrative enforcement action against any department or agency of the Federal Government pursuant to the enforcement authorities contained in RCRA.

Findings of Fact /Conclusions of Law

EPA Region 1 makes the following findings and determinations, which Respondent neither admits nor denies:

12. Respondent is an EPA-owned and managed environmental research and development facility with laboratories and support facilities dedicated to ecological research activities. Respondent's facility (the "Facility") is located at 27 Tarzwell Drive in Narragansett, Rhode Island, on a site of approximately 11 acres adjacent to the University of Rhode Island's Graduate School of Oceanography and along the western passage of Narragansett Bay.

13. At all times relevant to this CAFO, Respondent was and currently is a "person," as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), 40 C.F.R. § 260.10 and RI Rule 3.00.

14. Maintenance at the Facility is provided by Bob Holtz Services, an on-site operations and maintenance contractor. The primary structure at the Facility is the "Main Laboratory Building," which houses scientific, administrative and support staff, dry and wet laboratories and culture areas, a water tempering facility, greenhouse and storage space. Other structures include: the "Support Services Building," which contains various workshops, a fitness facility, and a histopathology laboratory; the "Pollution Abatement Building," which contains a high-hazard laboratory and wastewater pre-treatment facilities; the "Field Operations Building; the "Boat House," which contains a

maintenance shop and storage for over ten boats; a pier with an associated pump house, which provides sea water to the laboratory; and the “Hazardous Materials Building,” which contains segregated waste and bulk storage of chemicals.

15. At all times relevant to this CAFO, the Facility was and currently is a “facility,” as defined at 40 C.F.R. § 260.10 and RI Rule 3.00.

16. At all times relevant to this CAFO, Respondent was and currently is the “owner” and/or “operator” of the Facility, as defined at 40 C.F.R. § 260.10.

17. Respondent’s primary responsibilities at the Facility include conducting research regarding the impact of ecological stressors on coastal and watershed habitats. Work at the Facility emphasizes toxicological evaluation, monitoring and assessment of organisms, population modeling, and ecological risk assessment. Respondent’s staff activities typically involve field trips to collect samples and monitor ecological parameters, computer-based modeling, and laboratory work - both chemical and biological.

18. The hazardous waste central storage accumulation area for the Facility is contained in the Hazardous Materials Building (“HMB”) located adjacent to the southeast corner of the main laboratory building. The HMB serves as a storage area for various chemicals such as organic solvents, compressed gases, inorganic chemicals, and radioactive wastes and materials. Individual storage rooms are equipped with explosion-proof heating and lighting, gravity ventilation, door alarms, and sprinkler fire suppression systems. Non-bulk (55-gallon drum) hazardous wastes are confined to Room 9, a diked and roofed shelter surrounded by locked security fencing in the southeast corner of the HMB.

19. At all times relevant to this CAFO, Respondent has generated “solid waste,” as defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27), and 40 C.F.R. §§ 260.10 and 261.2.

20. At all times relevant to this CAFO, Respondent has generated “waste,” as defined in RI Rule 3.00.

21. At all times relevant to this CAFO, some of the wastes Respondent has generated were “hazardous wastes,” as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), 40 C.F.R. §§ 260.10 and 261.3, and RI Rule 3.00.

22. At all times relevant to this CAFO, Respondent was and currently is a “generator,” as defined in 40 C.F.R. § 260.10 and RI Rule 3.00.

23. Accordingly, as a generator of hazardous waste, Respondent is subject to RCRA, the federal regulations promulgated at 40 C.F.R. Parts 260-271 and 279, and the RI Rules.

24. On July 27-28, 2009 and September 3, 2009, authorized representatives of EPA Region 1 conducted a RCRA compliance evaluation inspection of the Facility (the “Inspection”), pursuant to Section 3007 of RCRA, 42 U.S.C. § 6927.

25. On September 11, 2009, Complainant issued a Notice of Potential Violation (“NPV”) to Respondent identifying potential violations of the hazardous waste management requirements that were observed during the Inspection.

26. On October 19, 2009, Respondent submitted its Response to the NPV (“NPV Response”).

27. Based on the Inspection, Respondent's NPV Response and other information provided by Respondent after the Inspection, Complainant identified the following violations:

Failure to Make Hazardous Waste Determinations

28. Pursuant to RI Rule 5.08, a generator must determine if any of its wastes meet any of the definitions of a hazardous waste. The generator must determine if any of its wastes meet either any of the federal definitions of "hazardous waste" as required by 40 C.F.R. § 262.11 or the definition of "Rhode Island Wastes," as defined in RI Rule 3.00. *See also* 40 C.F.R. §§ 262.11, 268.7(a) and 268.9(a).

29. At the time of the Inspection, Respondent was not conducting proper hazardous waste determinations for the following containers of waste and/or waste streams:

- a. Aerosol wastes (Numerous aerosol cans, including those containing chlorinated solvents and various paint products, were observed throughout the Facility.)
- b. Waste Metals/Acids (from the analyzers used in Laboratory 138)
- c. Waste Rags (from a 55-gallon poly drum containing oily rags and marked as "non-regulated waste" that was located in the Boat House)
- d. Used Oils (from a 55-gallon drum marked "used oil" on a secondary containment pallet in the Boat House)
- e. Old/Unused Chemicals (from Room 108 in the Support Services Building)

30. Respondent's failure to conduct proper hazardous waste determinations for the waste streams and/or containers of waste, described above in Paragraph 29,

constitutes violations of RI Rule 5.08. See also 40 C.F.R. §§ 262.11, 268.7(a) and 268.9(a).

Treatment of Hazardous Waste without a Permit

31. Pursuant to Section 3005 of RCRA and RI Rule 7.01A, all persons who treat hazardous waste must obtain an operating permit or approval from the Rhode Island Department of Environmental Management (“RI DEM”) unless she/he meets certain specified exceptions.

32. At the time of the Inspection, Respondent stored several hazardous waste containers that held waste acids in Laboratory 138 in the Main Laboratory Building. The acid wastes were generated by the three analyzers used in the laboratory. Laboratory procedures called for the waste acids to be tested for metals. If the metals content in the waste acids was below regulated levels, the waste acids were neutralized with sodium bicarbonate in a laboratory sink and then disposed of down the sink drain. If the metals content in the waste acid exceeded regulated levels, the waste acids were disposed of as hazardous waste. However, the only record of an analysis of the acid waste that Respondent has provided to EPA Region 1 was dated August 25, 1993.

33. At the time of the Inspection, Laboratory 171 in the Main Laboratory Building was the location of the Dish Room. Respondent used two hydrochloric acid baths and two nitric acid baths to clean glassware in the Dish Room. Respondent disposed of the waste acids in this laboratory by treating each of the twenty-five gallon baths of each type of waste acid with sodium bicarbonate and then disposing of the treated baths down a drain in the laboratory.

34. At the time of the Inspection, the waste acids in Laboratory 138 and Laboratory 171, described above in Paragraphs 32 and 33 respectively, were “hazardous wastes,” as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), 40 C.F.R. §§ 260.10 and 261.3, and RI Rule 3.00.

35. At the time of the Inspection, Respondent’s neutralization of the waste acids in Laboratory 138 and Laboratory 171, as described above in Paragraphs 32 and 33, respectively, was “treatment” of hazardous waste, as defined in 40 C.F.R. § 260.10 and RI Rule 3.00.

36. At the time of the Inspection, Respondent’s neutralization of waste acids in Laboratory 138 and Laboratory 171 did not qualify for any of the exemptions to RI Rule 7.01(A).

37. Accordingly, Respondent’s treatment of the hazardous waste acids in Laboratories 138 and 171, as described above in Paragraphs 32 and 33, respectively, without having a permit or approval from RI DEM constitutes violations of Section 3005 of RCRA and RI Rule 7.01(A). *See also* 40 C.F.R. § 270.1.

Failure to Provide Adequate Hazardous Waste Management Training

38. Pursuant to RI Rule 5.02, a generator may store hazardous waste onsite for 90 days or less without a permit as long as the hazardous waste is managed in accordance with, among other requirements, the requirements of 40 C.F.R. § 262.34.

39. Pursuant to 40 C.F.R. § 262.34(a)(4), a generator must comply with, among other requirements, 40 C.F.R. § 265.16.

40. Pursuant to 40 C.F.R. § 265.16(a)(1), employees who manage hazardous wastes must complete a hazardous waste management training program that teaches them

to perform their duties in a way that ensures the facility's compliance with RCRA.

41. Pursuant to 40 C.F.R. § 265.16(a)(2), the training program must be directed by a person trained in hazardous waste management procedures and must include instruction which teaches facility personnel hazardous waste management procedures relevant to the positions in which they are employed (i.e., "initial RCRA training").

42. Pursuant to 40 C.F.R. § 265.16(b), employees who manage hazardous waste must successfully complete the program within six months after the date of their employment, and they must not work in unsupervised positions until they have completed the training requirements.

43. Pursuant to 40 C.F.R. § 265.16(c), employees who manage hazardous wastes must also take part in an annual review of the training (i.e., "annual RCRA training").

44. Pursuant to 40 C.F.R. § 265.16(e), the owner or operator of the facility must maintain hazardous waste training records on all current personnel until the facility is closed. For former employees, such records must be maintained for at least three years after their last work date at the facility.

45. At the time of the Inspection, Respondent did not provide adequate initial or annual RCRA training during 2007-2009 for at least two of its employees and at least one member of BHS (the Facility's onsite operations and maintenance contractor) who managed hazardous wastes at the Facility.

46. Accordingly, Respondent's failure to provide adequate hazardous waste management training during 2007-2009 to at least two members of its staff and to at least one BHS employee who managed hazardous waste at the Facility constitutes violations of

RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34(a)(4), which in turn, incorporates by reference 40 C.F.R. § 265.16.

Failure to Have a Hazardous Waste Contingency Plan

47. Pursuant to RI Rule 5.02, a generator may store hazardous waste onsite for 90 days or less without a permit as long as the hazardous waste is managed in accordance with, among other requirements, the requirements of 40 C.F.R. § 262.34.

48. Pursuant to 40 C.F.R. § 262.34(a) (4), a generator must comply with, among other requirements, the provisions of 40 C.F.R. Part 265, Subpart D.

49. Pursuant to 40 C.F.R. § 265.51(a), an owner or operator must have a contingency plan for his facility. The plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil or surface water.

50. Pursuant to 40 C.F.R. § 265.52(a), the contingency plan must describe the actions facility personnel must take to comply with 40 C.F.R. §§ 265.51 and 265.56 (requirements for emergency procedures) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil or surface water at the facility. Pursuant to 40 C.F.R. § 265.52(b), if the owner or operator already has a Spill Prevention, Control, and Countermeasures (“SPCC”) Plan or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of 40 C.F.R. Part 265, Subpart D.

51. Pursuant to 40 C.F.R. § 265.52(c), the contingency plan must describe arrangements agreed to by local police and fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services.

52. Pursuant to 40 C.F.R. § 262.52(d), the contingency plan must list names, addresses, and office and home phone numbers of all persons qualified to act as emergency coordinator and the list must be kept up to date. If more than one person is listed, one must be named a primary emergency coordinator and other must be listed in the order in which they will assume responsibility as alternates.

53. Pursuant to 40 C.F.R. § 262.52(e), the contingency plan must: include a list of all emergency equipment at the facility; keep the list up to date; and include the location and a physical description of each item on that list and a brief outline of its capabilities.

54. Pursuant to 40 C.F.R. § 262.52(f), the contingency plan must include an evacuation plan for facility personnel. The plan must describe signal(s) to be used to begin an evacuation, evacuation routes, and alternate evacuation routes.

55. At the time of the Inspection, Respondent did not have a Hazardous Waste Contingency Plan that met all of the requirements of 40 C.F.R. Part 265, Subpart D.

56. Accordingly, Respondent's failure to maintain a Hazardous Waste Contingency Plan that met the requirements of 40 C.F.R. Part 265, Subpart D, constitutes violations of RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34(a)(4), which in turn, incorporates by reference 40 C.F.R. Part 265, Subpart D.

Failure to Maintain and Operate the Facility in a Manner to Minimize the Possibility of a Fire, Explosion, or Any Other Unplanned Sudden or Non-Sudden Release of Hazardous Wastes or Hazardous Constituents to Air, Soil, or Surface Water

57. Pursuant to RI Rule 5.02, a generator may store hazardous waste onsite for 90 days or less without a permit as long as the hazardous waste is managed in accordance with, among other requirements, the requirements of 40 C.F.R. § 262.34.

58. Pursuant to 40 C.F.R. § 262.34(a) (4), a generator must comply with, among other requirements, the provisions of 40 C.F.R. Part 265, Subpart C.

59. Pursuant to 40 C.F.R. § 265.31, facilities must be maintained and operated in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or water which could threaten human health or the environment.

60. At the time of the Inspection, Respondent stored two hazardous waste containers in Laboratory G07 (the "Trim Room") in the Main Laboratory Building. The first container was a full, 5-gallon safety can that contained waste formaldehyde. Respondent's staff managed this waste formaldehyde by emptying the container into a 55-gallon drum that was located inside a secondary containment drum on wheels. There was an open floor drain located in the middle of the laboratory. The floor of the laboratory sloped to this drain and was bumpy and uneven (i.e., not well-suited to a hazardous waste container on wheels). Additional chemicals observed in this laboratory included: glutelaldehyde, methyl salicylate, hydrochloric acid, acetone and diethylene glycol.

61. At the time of the Inspection, Respondent's staff was unable to identify where the floor drains for the laboratories on the ground floor of the Main Laboratory Building

(including Laboratory G07) discharged. Respondent subsequently conducted a dye test of these floor drains. The test results indicated that the drains discharged to the Facility's sanitary sewer system.

62. Accordingly, Respondent's failure to maintain and operate the Facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or water which could threaten human health or the environment, as described above in Paragraph 60, constitutes a violation of RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34(a)(4), which in turn, incorporates by reference 40 C.F.R. Part 265, Subpart C.

Failure to Label or Mark Hazardous Waste Containers with the Words "Hazardous Waste" and Other Words That Identify the Contents

63. Pursuant to RI Rule 5.04(C), a generator must label or mark each container in satellite accumulation with the words "Hazardous Waste" and other words that identify the contents of the container. *See also* 40 C.F.R. § 262.34(c)(1)(ii).

64. At the time of the Inspection, in Laboratory 138 at the Main Laboratory Building, Respondent stored: (1) an approximately four-gallon hazardous waste container at the ICPMS analyzer that was only labeled as "1% HNO₃ waste"; and (2) an unlabeled half-full four-liter bottle of hazardous waste at the automated mercury analyzer.

65. At all times relevant to this Complaint, the two hazardous waste containers in Laboratory 138, described above in Paragraph 64, were located in "satellite accumulation," as defined at RI Rule 3.00.

66. Accordingly, Respondent's failure to label or mark the hazardous waste containers in Laboratory 138, described above in Paragraph 64, with the words

“Hazardous Waste” and other words that identify the contents of the container constitutes violations of RI Rule 5.04C. *See also* 40 C.F.R. § 262.34(c) (1) (ii).

Failure to Mark Hazardous Waste Containers with Accumulation Dates

67. Pursuant to RI Rule 5.02, a generator may store hazardous waste onsite for 90 days or less without a permit as long as the hazardous waste is managed in accordance with, among other requirements, the requirements of 40 C.F.R. § 262.34.

68. Pursuant to 40 C.F.R. § 262.34(a) (2), each hazardous waste container must be marked with the date that waste accumulation begins.

69. At the time of the Inspection, Building 26 (the “Boat House”) housed the boats owned and operated by Respondent and was the location for maintenance operations conducted by BHS. Wastes were brought to this building from Building 25 (the “Support Services Building”) as well as from other locations at the Facility where BHS had worked. At the time of the Inspection, there was an open 55-gallon poly drum on a secondary containment pallet that contained waste oil and fuel filters. This drum was not marked with an accumulation start date.

70. Accordingly, Respondent’s failure to mark an accumulation start date on the 55-gallon drum of waste oil and fuel filters in Building 26, described above in Paragraph 69, constitutes a violation of RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34(a)(2).

Failure to Conduct and Document Weekly Inspections of Hazardous Waste Containers

71. Pursuant to RI Rule 5.02, a generator may store hazardous waste onsite for 90 days or less without a permit as long as the hazardous waste is managed in accordance with, among other requirements, the requirements of 40 C.F.R. §§ 262.34 and 265.15(d).

72. Pursuant to 40 C.F.R. § 262.34(a) (1) (i), a generator must comply with, among other requirements, 40 C.F.R. Part 265, Subpart I.

73. Pursuant to 40 C.F.R. § 265.174, an owner or operator must conduct at least weekly inspections of areas where hazardous waste containers are stored.

74. Pursuant to 40 C.F.R. § 265.15(d), an owner or operator must: record inspections in an inspection log or summary; keep these records for at least three years from the inspection date; and ensure that the records include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

75. At the time of the Inspection, the inspectors reviewed inspection logs for Building 6 (the “Hazardous Materials Building”) and Building 26 (the “Boat House”). There were five missing inspection logs for the Building 26: 07/27/09, 02/23/09, 02/9/09, 01/26/09 and 06/16/08. In addition, two logs for Building 26 were unsigned and did not identify the name of the inspector: 12/14/08 and 12/10/07.

76. Accordingly, Respondent’s failure to conduct five weekly inspections and/or keep records of these inspections and to include the name of the inspector on two other inspections at Building 26, as described above in Paragraph 75, constitutes violations of RI Rule 5.02, which references 40 C.F.R. §§ 265.15(d) and 262.34(a) (1) (i), which in turn references 40 C.F.R. § 265.174.

Failure to Properly Manage Universal Wastes

77. Pursuant to RI Rule 13.01(D), waste cathode ray tubes (“CRTs”), as described in RI Rule 13.02, are exempt from regulation under 40 C.F.R. Parts 262 through 270, and instead are subject to regulation under 40 C.F.R. Part 273.

78. Pursuant to RI Rule 13.02, the requirements of 40 C.F.R. Part 273 apply to persons managing CRTs. Pursuant to RI Rule 13.02(A), a used CRT becomes a waste on the date that it is discarded.

79. Pursuant to RI Rule 13.06, universal wastes must be managed in accordance with 40 C.F.R. Part 273 and with the additional requirements in RI Rule 13.06.

80. Pursuant to RI Rule 13.06(A), 40 C.F.R. Part 273 establishes requirements for managing “cathode ray tubes as defined in” the RI Rule 3.00 as “universal wastes.” *See also* 40 C.F.R. § 273.1.

81. Pursuant to RI Rule 13.06(E), a small quantity handler of universal waste must manage universal waste CRTs in a way that prevents releases of any universal waste to the environment such as by, among other requirements, containing unbroken CRTs in packaging that will minimize breakage during normal handling conditions, and containing CRTs in packaging that will minimize releases of tube fragments and residues. *See also* 40 C.F.R. § 273.13.

82. Pursuant to RI Rule 13.06(F), universal waste CRTs or a container in which CRTs are contained must be labeled or clearly marked with any one of the following phrases: “Universal Waste - Cathode Ray Tube(s),” or “Waste Cathode Ray Tube(s),” or “Used Cathode Ray Tube(s).” *See also* 40 C.F.R. § 273.14.

83. Pursuant to RI Rule 13.06(G), a small quantity handler of universal waste who accumulates universal waste (including CRTs) must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. *See also* 40 C.F.R. § 273.15(c).

84. At the time of the Inspection, Respondent stored used CRTs and other waste electronic equipment at both ends (east and west) of Building 25 (the Support Services Building). In the shipping and receiving area (i.e., the east end of the building), there were four cubic-yard boxes of used CRTs and other waste electronics. Neither the boxes nor the universal wastes contained therein were labeled as "Universal Wastes" or marked with an accumulation start date. On the top of the boxes were five additional used CRTs. These used CRTs were not in a container nor were they labeled as "Universal Wastes" or marked with an accumulation start date. In the contractor-assigned space at the west end of the building, there were six additional cubic-yard boxes of used CRTs and other used electronics similar to those observed in the east end of Building 25. None of these six boxes or the used CRTs and other used electronics contained therein were marked as "Universal Wastes" or marked with an accumulation start date. All of the used CRTs and other used electronics were no longer needed at the Facility and were being collected by Respondent for transfer to a government contractor. The contractor in turn would ultimately determine what to do with the equipment (e.g., reuse, recycle, dispose, etc.).

85. At the time of the Inspection, the used CRTs described above in Paragraph 84 were "discarded" by Respondent (since Respondent itself no longer had any use for them and was not the entity that made determinations on their ultimate disposition), and thus became "wastes" within the meaning of RI Rule 13.02(A).

86. At all times relevant to this Complaint, the used CRTs described above in Paragraph 84 were "universal wastes", as defined at RI Rule 3.00, and thus subject to the requirements in 40 C.F.R. Part 273 and to the additional requirements in RI Rule 13.06.

87. At all times relevant to this CAFO, Respondent was a “small quantity handler of universal waste,” as defined in RI Rule 3.00.

88. Accordingly, Respondent was required to manage the universal waste CRTs described above in Paragraph 84 in a way that prevents releases of any universal waste to the environment such as by containing unbroken CRTs in packaging that will minimize breakage during normal handling conditions.

89. Accordingly, Respondent was required to mark or clearly label either the universal waste CRTs or the boxes in which the CRTs were contained, described above in Paragraph 84, with any one of the following phrases: “Universal Waste - Cathode Ray Tube(s),” or “Waste Cathode Ray Tube(s),” or “Used Cathode Ray Tube(s).”

90. Accordingly, Respondent was required to demonstrate the length of time that the universal waste CRTs described above in Paragraph 84 had been accumulated from the date it became a waste.

91. Accordingly, Respondent’s failure to properly manage either the used CRTs or their containers in Building 25, described above in Paragraph 84, as universal wastes constitutes violations of RI Rule 13.06 which references 40 C.F.R. Part 273.

Terms of Settlement

92. The provisions of this CAFO shall apply to and be binding on Respondent, its officers, directors, successors and assigns.

93. Respondent agrees that EPA has jurisdiction over the subject matter alleged in this CAFO, and hereby waives any defenses it might have as to jurisdiction and venue.

94. Respondent acknowledges that it has been informed of its right to request a hearing in this proceeding, and hereby waives its right to a judicial or administrative hearing or appeal on any issue of law or fact set forth in this CAFO.

95. Respondent hereby waives its right to appeal the Final Order accompanying this Consent Agreement.

96. Without admitting or denying any finding of fact or conclusion of law contained in this CAFO and without admitting or denying liability as to any claim alleged in this CAFO, Respondent consents to the terms and issuance of this CAFO, including the performance of the Supplemental Environmental Project (“SEP”) described herein, and consents for the purposes of settlement to the payment of the civil penalty as set forth in this CAFO.

97. In addition, Respondent also consents to comply with the following upon the receipt of this CAFO:

a. Respondent shall achieve and maintain compliance with all applicable requirements of RCRA. Specifically, Respondent shall:

i. Immediately upon receipt of this CAFO and in accordance with RI Rule 5.08, make hazardous waste determinations for the wastes and/or waste streams at the Facility described above in Paragraph 29 and any other solid wastes generated at the Facility; [*See also* 40 C.F.R. § 262.11]

ii. Immediately upon receipt of this CAFO and in accordance with RI Rule 7.01, cease the neutralization of waste acids in Laboratories 138 and 171 in the Main Laboratory Building without a proper permit;

iii. Within 45 days of the effective date of this CAFO and in accordance with RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34(a)(4), which in turn incorporates by reference 40 C.F.R. § 265.16, ensure that all facility personnel who manage hazardous wastes complete a hazardous waste training program that meets the standards of 40 C.F.R. § 265.16. Respondent shall also ensure that all facility personnel who manage hazardous waste complete such a program within six months after the date of their employment, or assignment to a facility that manages hazardous waste, or assignment to a position managing hazardous wastes. Furthermore, Respondent shall ensure that facility personnel who manage hazardous waste take part in an annual review of such training. In addition, Respondent shall maintain the training documents and records required by 40 C.F.R. § 265.16;

iv. Within 45 days of the effective date of this CAFO and in accordance with RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34(a) (4), which in turn incorporates by reference 40 C.F.R. Part 265, Subpart D, develop and maintain a hazardous waste contingency plan at the Facility that meets all of the requirements of 40 C.F.R. Part 265, Subpart D. The plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil or surface water. If Respondent has already prepared other emergency or contingency plans, it may elect to either amend those plans to incorporate hazardous waste management provisions that are sufficient to comply with 40 C.F.R. Part 265, Subpart D, or develop one contingency plan that meets all regulatory requirements (e.g., a plan based upon the National Response Team's Integrated Contingency Plan Guidance such as the "One Plan");

v. Immediately upon receipt of this CAFO and in accordance with RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34(a)(4), which in turn incorporates by reference 40 C.F.R. § 265.31, maintain and operate the Facility in a manner that minimizes the possibility of a fire, explosion or any unplanned release of hazardous waste or hazardous waste constituents. Specifically, Respondent shall take steps to minimize the possibility of unplanned releases of hazardous wastes or hazardous waste constituents by either permanently sealing or otherwise covering the open floor drains located on the ground floor level laboratories in the Main Laboratory Building;

vi. Immediately upon receipt of this CAFO and in accordance with RI Rule 5.04C, label all hazardous waste containers in a satellite accumulation area with the words "Hazardous Waste" and other words that identify the contents of the container; [See also 40 C.F.R. § 262.34(c) (1) (ii)]

vii. Immediately upon receipt of this CAFO and in accordance with RI Rule 5.02, which incorporates by reference 40 C.F.R. § 262.34, mark each hazardous waste container, excluding those in satellite accumulation areas, with the accumulation start date;

viii. Immediately upon receipt of this CAFO and in accordance with RI Rule 5.02, which incorporates by reference 40 C.F.R. §§ 262.34(a)(1)(i), which in turn incorporates by reference 40 C.F.R. Part 265, Subpart I, and 265.15(d), conduct weekly inspections of areas where hazardous waste containers are stored. Respondent shall also record inspections in an inspection log or summary; keep these records for at least three years from the inspection date; and ensure that the records include the date and time of

the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions; and

ix. Within 30 days of the effective date of this CAFO and in accordance with RI Rule 13.06, manage the universal wastes (e.g., cathode ray tube monitors) at the Facility in accordance with 40 C.F.R. Part 273 and RI Rule 13.06. Specifically, Respondent shall: contain waste cathode ray tubes in packaging that will minimize breakage during normal handling conditions and minimize releases of tube fragments and residues; mark waste cathode ray tubes or a container in which waste cathode ray tubes are contained must be labeled or clearly marked with any of the phrases required by 40 C.F.R. § 273.14 and RI Rule 13.06F; and be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

b. Within 60 days of the effective date of this CAFO, Respondent shall submit to EPA Region 1 written confirmation of its compliance (accompanied by a copy of any appropriate supporting documentation) or noncompliance with the requirements set forth in this Paragraph. Any notice of noncompliance with the requirements of this Paragraph shall state the reasons for the noncompliance and when compliance is expected. Notice of noncompliance will in no way excuse the noncompliance. The information requested in this CAFO is not subject to the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501 et seq. Respondent shall submit the copies of the above required information and notices to:

Richard Piligian
RCRA, EPCRA and Federal Programs Technical Unit
U.S. EPA, Region 1
5 Post Office Square - Suite 100
Mail Code: OES05-1
Boston, MA 02109-3912

and:

William D. Chin
Enforcement Counsel
U.S. EPA, Region 1
5 Post Office Square - Suite 100
Mail Code: OES04-4
Boston, MA 02109-3912

c. If Respondent fails to comply with the requirements of this Paragraph within the time specified, Section 3008(c) of RCRA and the DCIA provide for further enforcement action in which EPA Region 1 may seek the imposition of additional penalties of up to \$37,500 for each day of continued noncompliance.

98. After consideration of the nature of the violations alleged in this CAFO, Respondent's agreement to perform the SEP described herein, and other relevant factors, EPA Region 1 has determined that it is fair and proper that Respondent pays a civil penalty in the amount of \$30,442 in settlement of this matter.

Penalty Payment

99. Respondent shall pay the civil penalty set forth in this CAFO by no later than one hundred eighty (180) days after the effective date of this CAFO.

100. This CAFO shall be effective on the date it is filed with the Regional Hearing Clerk.

101. Respondent shall make the penalty payment by directing the funds via electronic wire transfer to:

Federal Reserve Bank of New York
ABA No. 021030004
Credit EPA Account No. 68010727
SWIFT address: FRNYUS33
33 Liberty Street
New York, NY 10045

Field Tag 4200 of the Fedwire message should read: D 68010727
"Environmental Protection Agency"

The required payment shall reference the name ("In the Matter of: U.S. Environmental Protection Agency, Atlantic Ecology Division Laboratory") and the EPA Docket Number ("RCRA-01-2011-0051") of this Consent Agreement. Documents sufficient to demonstrate that such transfer has occurred shall be sent simultaneously to:

Wanda I. Santiago
Regional Hearing Clerk
5 Post Office Square
Suite 100 (ORA18-1)
Boston, MA 02109-3912

and:

William D. Chin
Enforcement Counsel
U.S. EPA, Region 1
5 Post Office Square
Suite 100 (OES04-4)
Boston, MA 02109-3912

102. Failure by Respondent to pay the penalty assessed by this CAFO in full shall subject the Respondent to a civil action to collect the assessed penalty, plus interest at current prevailing rates from the effective date of this CAFO. Pursuant to 31 U.S.C. § 3717, EPA Region 1 is entitled to assess interest and penalties on debts owed to the United States and a charge to cover the costs of processing and handling a delinquent claim. Interest will therefore begin to accrue on a civil or stipulated penalty if it is not paid by the last date required. Interest will be assessed at the rate of the United States Treasury tax and loan rate in accordance with 31 C.F.R. § 901.9(b)(2). A charge will be assessed to cover the costs of debt collection, including processing and handling costs and attorneys fees. In addition, a non-payment penalty charge of six (6) percent per year

compounded annually will be assessed on any portion of the debt which remains delinquent more than ninety (90) days after payment is due. Any such non-payment penalty charge on the debt will accrue from the date the penalty payment becomes due and is not paid. *See* 31 C.F.R. § 901.9(d).

Description of SEP

103. Respondent agrees to complete the following SEP, which the parties agree is intended to secure significant environmental protection and improvements.

104. Respondent shall ensure the construction of up to five (5) water-quality improvement systems and structures (known as “Best Management Practices” or “BMPs”) at Roger Williams Park in Providence, Rhode Island. The SEP is further described in the scope of work (“Scope of Work”), attached hereto as Attachment #1 and incorporated herein by reference.

105. Respondent agrees to complete the SEP by no later than December 31, 2012, and to spend at least \$200,000 for the SEP. Respondent shall include documentation of the expenditures made in connection with the SEP as part of a SEP Completion Report, described in Paragraph 107 herein.

a. Respondent further agrees that the failure to satisfactorily complete the SEP required by this CAFO (including specifically, but limited to, the actual construction of the selected BMPs for Roger Williams Park), shall be deemed a violation of this CAFO, and that Respondent shall become liable for stipulated penalties pursuant to Paragraph 114 herein.

b. Any public statement, oral or written, in print, film, or other media, made by Respondent making reference to the SEP shall contain the following language, “This

project was undertaken in connection with the settlement of an enforcement action taken by the U.S. Environmental Protection Agency for violations of Sections 3002 and 3005 of RCRA, 42 U.S.C. §§ 6922 and 6925, and the federal and state regulations promulgated to implement those statutory provisions.”

c. This CAFO shall not relieve Respondent of its obligation to comply with all applicable provisions of federal, state or local law, nor shall it be construed to be ruling on, or a determination of, any issue related to any federal, state or local permit, nor shall it be construed to constitute EPA approval of the equipment or technology installed by Respondent in connection with the SEP under the terms of this Agreement.

106. Respondent certifies that, as of the date of its execution of this CAFO, Respondent is not required to perform or develop the SEP by any federal, state or local law or regulation; nor is Respondent required to perform or develop the SEP by any other agreement or grant or as injunctive relief in this or any other action. Respondent also certifies that it has not received, and is not presently negotiating to receive, credit in any other enforcement action for the SEP.

SEP Reports

107. Within 30 days of the completion of the SEP, Respondent shall submit a SEP Completion Report to EPA Region 1 that shall contain the following information:

- a. A detailed description of the SEP as implemented, including copies of any waste disposal manifests, bills of lading and analytical results regarding the transformers;
- b. Itemized costs, documented by copies of purchase orders and receipts or canceled checks;

c. Certification that the SEP has been fully implemented pursuant to the provisions of this CAFO; and

d. A brief description of the environmental and public health benefits resulting from implementation of the SEP.

108. Respondent shall also submit SEP Periodic Reports to EPA Region 1 describing the progress of the SEP. The SEP Periodic Reports shall be due every three months, beginning with three months after the effective date of this CAFO. Each SEP Periodic Report shall contain a brief description of: (a) the work undertaken for the SEP during the three months preceding the due date of the report; (b) the work planned for the SEP during the three months following the due date of the report; and (c) any actual or anticipated problems or delays in the implementation of the SEP. Respondent shall not be required to submit any SEP Periodic Report subsequent to the completion date of the SEP.

109. Respondent agrees that failure to submit any of the SEP Reports required by this CAFO shall be deemed a violation of this CAFO, and that Respondent shall become liable for stipulated penalties pursuant to Paragraph 114 herein.

110. Respondent shall submit, by first class mail or overnight delivery, the SEP Reports required by this CAFO to: Richard Piligian, RCRA, EPCRA and Federal Programs Technical Unit, U.S. EPA, Region 1, 5 Post Office Square - Suite 100, Mail Code: OES05-1, Boston, MA 02109-3912. The date of submission of each required SEP Report shall be deemed the date on which such information is postmarked by the U.S. Postal Service, or delivered to an overnight delivery carrier.

111. Respondent shall maintain legible copies of documentation of the relevant and pertinent supporting evidence for any and all SEP Reports submitted to EPA Region 1 pursuant to this CAFO for five (5) years following such submission, and Respondent shall provide documentation to EPA Region 1 within seven (7) days of a request for such information. In all documents or reports submitted to EPA Region 1 pursuant to this CAFO, Respondent shall, by and through an authorized official, sign and certify under penalty of law that the information contained in such document or report is true, accurate, and not misleading by signing the following statement:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

EPA Region 1 Response to SEP Reports

112. Following receipt of any SEP Report required by this CAFO, EPA Region 1 will do one of the following: (i) accept the SEP Report; or (ii) reject the SEP Report, notify Respondent in writing of the deficiencies in the SEP Report and grant Respondent an additional thirty (30) days in which to correct any deficiencies.

113. If EPA Region 1 elects to exercise option (ii) above, EPA Region 1 shall permit Respondent the opportunity to object in writing to the notification of deficiency or disapproval given pursuant to this paragraph within ten (10) days of receipt of such notification. EPA Region 1 and Respondent shall have an additional thirty (30) days from the receipt by EPA Region 1 of the notification of objection to reach an agreement on the issues in dispute. If agreement cannot be reached on any such issue within this thirty (30) day period, EPA Region 1 shall provide a written statement of its decision to

Respondent, which decision shall be final and binding upon Respondent. Respondent agrees to comply with any requirements imposed by EPA Region 1 as a result of any such deficiency or failure to comply with the terms of this CAFO. In the event the SEP is not completed as contemplated herein, stipulated penalties shall be due and payable by Respondent to the United States in accordance with Paragraph 114 below.

Stipulated Penalties

114. In the event that Respondent fails to comply with any of the terms or provisions of this CAFO relating to the performance of the SEP, including, but not limited to the filing of any SEP Report, and/or to the extent that the actual expenditures for the SEP do not equal or exceed the expected cost of the SEP, Respondent shall be liable for stipulated penalties in accordance with the provisions set forth below:

a. Except as provided by Subparagraph 114b herein, if the SEP is not satisfactorily completed pursuant to the terms of this CAFO, Respondent shall pay a stipulated penalty to the United States in the amount of \$117,630 plus interest accrued from the effective date of this CAFO;

b. If the SEP is not satisfactorily completed, but Respondent: (1) made good faith and timely efforts to complete the SEP; and (2) certifies, with supporting documentation, that it spent at least 90 percent of the amount of money originally required to be spent on the SEP, Respondent shall not be liable for any stipulated penalty;

c. If the SEP is satisfactorily completed, but Respondent spent less than 90 percent of the amount of money originally required to be spent for the SEP, Respondent shall pay a stipulated penalty to the United States in the amount of \$35,289 plus interest accrued from the effective date of this CAFO; and

d. For the failure to submit any SEP Report required by this CAFO, Respondent shall pay a stipulated penalty to the United States of \$200 per day until the report is submitted.

115. The determinations of whether the SEP or any SEP Report has been satisfactorily and/or timely completed or submitted and whether Respondent has made a good faith, timely effort to implement the SEP shall be in the sole discretion of EPA Region 1.

116. Respondent shall pay stipulated penalties plus any interest thereon within fifteen (15) days of receipt of written demand by EPA Region 1 for such penalties. The method of payment shall be in accordance with the provisions of Paragraph 101 herein. EPA Region 1 may, in its sole discretion, elect not to seek stipulated penalties or to compromise any portion of stipulated penalties that accrue pursuant to this CAFO.

Additional Provisions

117. This CAFO constitutes a full and complete settlement by EPA Region 1 of all claims for civil liability and penalties, pursuant to Sections 3008(a) and (g) of RCRA, 42 U.S.C. §§ 6928(a) and (g), for all violations of RCRA specifically alleged herein. Nothing in this CAFO is intended to nor shall be construed to operate in any way to resolve any criminal or any other civil liability of Respondent. Compliance with this CAFO shall not be a defense to any actions unrelated to the violations alleged herein and subsequently commenced pursuant to Federal laws and regulations administered by EPA, and it is the responsibility of Respondent to comply with such laws and regulations. Nothing in this Consent Agreement shall be construed as limiting the authority of the United States to undertake any action against Respondents in response to conditions

which may present an imminent and substantial endangerment to the public health, welfare or the environment.

118. Except as provided above in Paragraph 102, each party shall bear its own costs and fees in this proceeding.

119. Each undersigned representative of the parties to this CAFO certifies that she or he is fully authorized by the party represented to enter into the terms and conditions of this CAFO and to execute and legally bind that party to it.

THE UNDERSIGNED PARTY enters into this CAFO for In the Matter of: U.S. Environmental Protection Agency, Atlantic Ecology Division Laboratory, Docket No. RCRA-01-2011-0051

For U.S. EPA, Atlantic Ecology Division Laboratory:



9/27/11

Name: Jonathan H. Garber, Ph.D.
Title: Associate Director for Ecology
Organization: U.S. EPA

Date: September 27, 2011

Office of Research and Development,
National Health and Environment Effects Research Laboratory

THE UNDERSIGNED PARTY enters into this CAFO for In the Matter of: U.S. Environmental Protection Agency, Atlantic Ecology Division Laboratory, Docket No. RCRA-01-2011-0051

For U.S. EPA, Region 1:

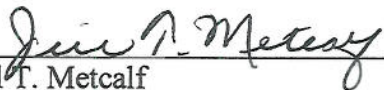


Joanna Jerison
Legal Enforcement Manager
Office of Environmental Stewardship
U.S. EPA, Region 1

9/28/11
Date

FINAL ORDER

The foregoing Consent Agreement is hereby approved and incorporated by reference into this Final Order. Respondent is ordered to comply with the terms of the above Consent Agreement, effective on the date it is filed with the Regional Hearing Clerk.



Jill T. Metcalf
Acting Regional Judicial Officer
U.S. EPA, Region 1



Date

ATTACHMENT #1 TO CAFO
U.S. EPA, Atlantic Ecology Division Laboratory
RCRA-01-2011-0051

SUPPLEMENTAL ENVIRONMENTAL PROJECT
SCOPE OF WORK

Project Name: BMP construction for Roger Williams Park, Providence, RI

Project Type: Pollution reduction or environmental protection

Nexus: Project is at a location within 50 miles of facility subject to penalty. Two of the alleged violations in this enforcement action could potentially result in the discharge of waste chemicals into the facility's wastewater treatment system which ultimately discharges into Narragansett Bay. The project reduces or eliminates the discharge of pollutants via storm water into the pond system at Roger Williams Park which discharges into the Pawtuxet River, which in turn eventually discharges into Narragansett Bay.

Background: Respondent is an EPA-owned and managed environmental research and development facility with laboratories and support facilities dedicated to ecological research activities. Respondent's facility (the "Facility") is located at 27 Tarzwell Drive in Narragansett, Rhode Island, on a site of approximately 11 acres adjacent to the University of Rhode Island's Graduate School of Oceanography and along the western passage of Narragansett Bay.

Description of SEP: Respondent shall spend at least \$200,000 for the construction of up to five (5) water-quality improvement systems and structures, known as "Best Management Practices" or "BMPs" for the ponds at Roger Williams Park in Providence, Rhode Island. The park is the only large, accessible area for outdoor recreation available to tens of thousands of low-income residents of South Providence and Cranston.

A list of the potential sites and structures suitable for funding, along with the rationale for their siting and the benefit they will provide are given in the attached document titled "Pollution Reduction: Roger Williams Park Ponds." At present, Respondent's primary focus is on two specific sites, listed as #6 (Roosevelt Lake) and #28 (Road Intersection of Beachmont, Edgewood, and FC Green Memorial Boulevard), as prime candidates for the SEP funding. The final design for these BMP's is expected to be available in September/October 2011. More detailed information on the BMPs and sites (including a site map) is included at the end of this Attachment.

Timing: Within 30 days after the final design for the BMPs becomes available, Respondent will contact Richard Piligian of EPA Region 1's RCRA, EPCRA and Federal Program Unit to initiate discussions on the selection of BMPs and the development of a detailed workplan for the final project. Prior to the commencement of construction of any of the BMPs, Respondent shall submit a detailed workplan regarding the specific BMPs selected for construction (including siting, details on costs, funding priority of the BMPs, etc.) to EPA Region 1 for its review and approval. Respondent shall not commence construction of the BMPs until EPA Region 1 has approved the detailed workplan. The final selection of the BMPs and approval of the detailed workplan by EPA Region 1 shall be completed by no later than 120 days after the final designs for the BMPs become available. Construction is expected to begin in early calendar year 2012, and be completed before the end of calendar year 2012.

Costs: Respondent shall spend at least \$200,000 for the construction of up to five (5) BMPs for the park. Actual construction, installation and operating and maintenance costs will be determined after the BMP are selected.

Savings: No savings are anticipated to be achieved by Respondent through construction of the BMPs at Roger Williams Park.

Pollution Reduction: Roger Williams Park Ponds

Proposal for SEP funding

Narragansett Bay Estuary Program, 29 July 2011



Location and Need: Roger Williams Park is the largest greenspace in Providence—a regional resource and a neighborhood park, with more than a million visitors each year. The centerpiece of the Park is a hundred-acre system of interconnected, manmade freshwater ponds. Taken together, the Roger Williams Park Ponds are the most important and accessible bodies of recreational fresh water in Providence—yet they are severely degraded, with very poor water quality, eroding shorelines, and abundant waterfowl. A major source of water pollution to the Ponds is stormwater—from local roads as well as

/state highways and the urbanized upper watershed. The Ponds connect to Narragansett Bay; therefore these sources harm coastal waters as well as the Park's fresh water habitats.

Pollution Reduction Measures: Narragansett Bay Estuary Program (NBEP) will work with a contractor, Horsley Witten Inc., to design, permit and install water quality treatment systems in Roger Williams Park that are consistent with a watershed plan currently under development. Such basins typically reduce nitrogen and phosphorus loadings on the order of 40-60% and metals by 90% or more. They also remove significant amounts of suspended solids which have a major impact on turbidity in the ponds. These best management practices (BMPs) will reduce pollution to Roger Williams Park Ponds and Narragansett Bay, while improving the quality of the urban environment for Park users. The measures will promote environmental justice, as Roger Williams Park is the only large, accessible area for outdoor recreation available to tens of thousands of low-income residents of South Providence and Cranston. The work will also help to implement Clean Water Act TMDLs for the Ponds, which are listed as impaired for phosphorus by R.I. Dept. of Environmental Management.

SEP Funding: This proposal describes the best management practices (BMPs) that would be constructed using SEP funds within the park to improve the overall ponds' water quality. The BMPs considered for each of the candidate locations will be selected and designed with the goal of improving the overall water quality of the Park ponds. We



anticipate that up to five BMPs (dependent upon site location and size of BMPs) will be designed, permitted and constructed within the park using the \$200,000 project funding.

The NBEP has an existing EPA grant pathway through its Clean Water Act Section 320 grant to be able to expedite the use of funding to complete this project. These BMP projects are made possible by the additional funding that would be made available to the NBEP.

Timetable: Under this grant, project contractor Horsley & Witten, Inc., of Sandwich, Mass., will complete the engineering and design work needed for this project. Construction will take place in spring and summer 2012.

BMP Site Identification (see attached Site Plan map): - 32 sites examined; 23 projects of higher priority identified below (see numbered circles on attached map for location)

The BMPs proposed for the park may include one or more of the following:

- bioretention systems;
- wet vegetated treatment systems (WVTS); and
- dry swales;

Pretreatment for these practices may include one or more of the following:

- grass channels;
- grass filter strips; and
- sediment forebays.

Pollutant removal efficiencies from the R.I. Stormwater Manual are provided for each type of BMP. Preliminary unit cost projections for each type of BMP were created based upon literature information and Horsley Witten experience.

1. Boathouse – water's edge
 - Plant buffer
 - Short plants to maintain visibility
2. Catch Basins/Depression on road by Carousel
 - Bioretention basin
 - Catch Basin across from Carousel could capture runoff from Carousel Area-
 - intercept pipe before it enters Willow Lake
 - All catch basins could use hoods – oil/grease separators
3. Park Carousel Roof
 - Intercept downspouts to planters
 - Japanese garden (potential in-water BMP)
5. Raingarden by stream in Japanese Garden
6. Roosevelt Lake – across from park monument
 - Remove one of the two roads across from the monument
 - Erosion on far side of road
 - Bioretention/buffer plantings by pond
 - Maintain specific areas for access to the water's edge
 - Include other water fowl controls such as fencing within the planting
 - Pond is shallow
8. Path Landscaped Triangle Island
 - Raingarden

9. Path/Hillside Erosion
 - Erosion control
 - Soil amendments
 10. Shoreline Planting
 - New seed mix with mowing regiment
 - Buffer planting
 - Low maintenance
 12. Erosion under ornamental bridge
 - Terraced swale
 14. Catch Basins on north side of Roosevelt Lake
 - Potential bioretention
 15. Lawn Hill Down to Polo Lake
 - Intercept road CB pipes into bioretention area, outlet to Polo Lake
 17. Geese Feeding Area by Polo Lake

Road flumes into bioretention areas

 - No catch basin runoff from road flows overland
 - Buffer planting
 - Remove benches
 - Maintain specific access points to water
 - Geese control measures
 18. Spillway to Polo Lake
 - Diversion to treatment along pond edge
 - Space is a concern in this location
 19. Erosion on side of Polo Lake
 - Buffer planting
 - Geese control
 20. Side of Willow Lake by Bridge
 - Planting area
 22. Path Intersection by Willow Lake
 - Bioretention basin
 23. Road Curbing
 - Remove
 24. Wide Road
 - Pavement Reduction
 25. Temple of Music shoreline
 - Buffer planting
 26. Boat Ramp
 - Buffer planting
 28. Road Intersection of Beachmont, Edgewood and FC Greene Memorial Blvd.
 - 2 Outfalls from road CBs to pond
 - Pavement reduction
 - Bioretention off road to the east
 - Bioretention on pond side of Blvd
 - Flume in from road or redirect pipes
 - WVTS
 29. Existing Concrete Swale
 - WVTS
- CBs need maintenance
- Terraced swale
30. Steep hill off Blvd. and Man-made canal at Pleasure Lake

- Catch basin outlet to stream and pond
- Man-made canal has standing water with duckweed
- Intercept pipes to bioretention area

Best Management Practices to be Used

Bioretention System

The bioretention system (also referred to as a "rain garden" or a "biofilter") is a stormwater management practice to manage and treat stormwater runoff using a conditioned soil bed and planting materials to filter runoff stored within a shallow depression. The method combines physical filtering and adsorption with biogeochemical processes to remove pollutants. The system consists of an inflow component, a pretreatment element, an overflow structure, a shallow ponding area (less than 9" deep), a surface organic layer of mulch, a planting soil bed, plant materials, and an underdrain system to convey treated runoff to a downstream facility. Pretreatment for bioretention typically consists of a grass channel, grass filter strip, or a sediment forebay. Median pollutant removal efficiencies for this practice are as follows:

- Total Suspended Solids (TSS) – 90%;
- Total Phosphorous (TP) – 30%;
- Total Nitrogen (TN) – 55%; and
- Bacteria – 70%.

Planning-level costs for a bioretention facility range from approximately \$15 to \$25 per square foot. Annual maintenance cost is approximately 5 to 7% of capital construction costs.

Wet Vegetated Treatment Systems (WVTS)

WVTS are excavated basins with irregular perimeters and undulating bottom contours into which emergent vegetation is purposely placed to enhance pollutant removal from stormwater runoff. The WVTS are designed to maximize the removal of pollutants from stormwater runoff via several mechanisms: microbial breakdown of pollutants, plant uptake, retention, settling, and adsorption.

A site appropriate for a WVTS must have adequate water flow or large drainage area and appropriate underlying soils. Base flow from the drainage area or groundwater must be sufficient to maintain a permanent pool in the WVTS and support the vegetation, including species susceptible to damage during dry periods. Pretreatment for a WVTS consists of a forebay or chamber sized to treat at least 10% of the required total water quality volume. Median pollutant removal efficiencies for this practice are as follows:

- TSS – 85%;
- TP – 48%;
- TN – 30%; and
- Bacteria – 60%.

Planning-level costs for WVTS are approximately \$10-\$25 per square foot, depending on the type and size. This includes costs for clearing and grubbing, erosion and sediment control, excavating, grading, staking, and planting.

Dry Swale

Dry swales are concave, vegetated conveyance systems that can improve water quality through infiltration and filtering. Dry swales are appropriate in areas where standing water is not desirable such as residential and commercial areas, and road medians. In dry swales, a prepared soil bed is designed to filter the runoff

for water quality. Runoff is then collected in an underdrain system and discharged to the downstream drainage system. Median pollutant removal efficiencies for this practice are as follows:

- TSS – 90%
- TP – 30%
- TN – 55%
- Bacteria – 70%

A designed swale, such as a dry swale with prepared soil and underdrain piping, has an estimated cost of \$15 to \$25 per square foot. The annual maintenance cost can range from 5 to 7% of the construction cost.

Grass Channel

Grass channels may be used for conveyance and pretreatment use. Grassed drainage channels accent the natural landscape, break up impervious areas, and are appropriate alternatives to curb and gutter systems. They are best suited to pretreat runoff from lower density areas and roadways and provide limited infiltration to groundwater. Median pollutant removal efficiencies for this practice are as follows:

- TSS – 70%
- TP – 24%
- TN – 40%
- Bacteria – No treatment

Planning-level costs for a grass channel is approximately \$10 per linear foot. The annual maintenance cost can range from 3 to 5% of the construction cost.

Filter Strip

A vegetative filter can be effective where the runoff entering and flowing through the strip remains as sheet flow and does not concentrate. Vegetated filter strips are limited due to this requirement. The area used for the filter strip itself must be mildly sloped and uniformly graded to maintain sheet flow or, in the case of indigenous areas, have surface features that retard, pond, and/or disperse runoff generally over the entire filter width. Second, the drainage area to the strip must also be uniformly graded and have a relatively horizontal downstream edge where it meets the upstream end of the filter strip. Grass filter strips should be used as pretreatment in conjunction with other water quality practices to achieve an overall pollutant removal goal. Median pollutant removal efficiencies for this practice are as follows:

TSS – 25%;

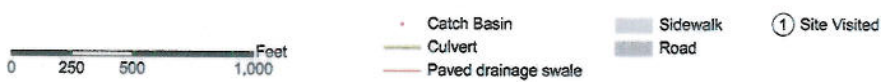
- TP – No Data;
- TN – No Data; and
- Bacteria – No data.

The estimated cost of filter strips for the purpose of this report is \$5 per square foot. The annual maintenance cost can range from 3 to 5% of the construction cost.

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Roger Williams Park Ponds — Sites Visited



Data from City of Providence GIS: Catch basins, roads, sidewalks, culverts and paved drains.
 Aerial imagery from 2008 Digital Aerial Photography (Pictometric Licensed Image)
 Coordinate System: NAD83, Rhode Island State Plane feet



Map 1

