EPA ENFORCEMENT ACCOUNTS RECEIVABLE CONTROL NUMBER FORM FOR ADMINISTRATIVE ACTIONS

This form was originated by Wanda I. Santiago for Andrea Simpson (Name of Case Attorney) 4/1/15 (Date)

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

Case Docket Number CAA-01-2015-0041

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:

City of Norwich, CT
Department of Public Utilities
Dr. Charles W. Solomon Water Purification Plant

Total Dollar Amount of Receivable $ 8,330 Due Date: 5/1/15

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

April 1, 2015

Wanda Santiago
Regional Hearing Clerk
U.S. Environmental Protection Agency
Region 1 (ORA 18-1)
5 Post Office Square
Boston, Massachusetts 02140

Re: City of Norwich; Department of Public Utilities; Dr. Charles W. Solomon Water Purification Plant
Docket No. CAA-01-2015-0041

Dear Ms. Santiago:

Enclosed for filing in the above-referenced matter, please find the original and one copy of the Consent Agreement and Final Order. Thank you for your assistance in this matter.

Very truly yours,

Andrea Simpson
Senior Enforcement Counsel

cc: Mark Sussman, Esq.

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1

In the Matter of:	
City of Norwich, Connecticut **Department of Public Utilities** **Dr. Charles W. Solomon** **Water Purification Plant**	**CONSENT AGREEMENT AND FINAL ORDER**
Respondent	Docket No. CAA-01-2015-0041
Proceeding under Section 113(a) and (d) of the Clean Air Act, 42 U.S.C. § 7413(a) and (d).	

Complainant, the United States Environmental Protection Agency, Region 1 ("EPA"), alleges that Respondent, City of Norwich, Connecticut, Department of Public Utilities, Dr. Charles W. Solomon Water Purification Plant ("Respondent"), has violated Section 112(r)(7), 42 U.S.C. § 7412(r)(7) and its implementing regulations found at 40 C.F.R. Part 68.

EPA and Respondent agree that settlement of this matter is in the public interest and that entry of this Consent Agreement and Final Order ("CAFO") without further litigation is the most appropriate means of resolving this matter. Pursuant to 40 C.F.R. § 22.13(b) of EPA's "Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation, Termination or Suspension of Permits" ("Consolidated Rules" or "Part 22"), EPA and Respondent agree to simultaneously commence and settle this action by the issuance of this CAFO.

Therefore, before any hearing, without adjudication of any issue of fact or law, upon the record, and upon consent and agreement of EPA and Respondent, it is hereby ordered and adjudged as follows:

I. STATUTORY AND REGULATORY AUTHORITY

1. Section 112(r) of the Act, 42 U.S.C. § 7412(r), authorizes EPA to promulgate regulations and programs to prevent and minimize the consequences of accidental releases of certain regulated substances. In particular, Section 112(r)(3), 42 U.S.C. § 7412(r)(3), requires EPA to promulgate a list of substances that are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment if accidentally released. Section 112(r)(5), 42 U.S.C. § 7412(r)(5), requires EPA to establish for each such substance a threshold quantity over which an accidental release is known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health. Section 112(r)(7) of the Act, 42 U.S.C. § 7412(r)(7), requires EPA to promulgate requirements for the prevention, detection, and correction of accidental releases of certain regulated substances, including a requirement that an owner or operator of certain stationary sources prepare and implement a risk management plan ("RMP").

2. Pursuant to Section 112(r) of the Act, 42 U.S.C. § 7412(r), EPA promulgated 40 C.F.R. §§ 68.1-68.220 ("Part 68").

3. The regulation at 40 C.F.R. § 68.130 lists the substances, and their associated threshold quantities, regulated under Part 68.

4. Under 40 C.F.R. §§ 68.10 and 68.12, an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process must comply with the requirements of Part 68 by June 21, 1999. In particular, each process in which a regulated substance is present in more than a threshold quantity ("covered process") is subject to one of three programs. Under 40 C.F.R. § 68.12(b), a covered process is subject to Program 1 if, among other things, the distance to a toxic or flammable endpoint for a worst-case release assessment is

less than the distance to any public receptor. Under 40 C.F.R. § 68.12(d), a covered process is subject to Program 3 if the process does not meet the eligibility requirements for Program 1 and is either in certain NAICS codes or subject to the OSHA process safety management standard at 29 C.F.R. § 1910.119. Under 40 C.F.R. § 68.10(c), a covered process meeting neither Program 1 nor Program 3 eligibility requirements is subject to Program 2.

5. Under Section 112(r)(7)(E) of the Act, 42 U.S.C. § 7412(r)(7)(E), it is unlawful for any person to operate any stationary source subject to regulations promulgated pursuant to Section 112(r) in violation of such regulation or requirement.

6. Sections 113(a) and (d) of the Act, 42 U.S.C. §§ 7413(a) and (d), provide for the assessment of civil administrative penalties for violations of the Act, including violations of Section 112(r) of the Act, 42 U.S.C. § 7412(r). EPA has obtained from the United States Department of Justice a waiver of the twelve-month limitation on EPA's authority to initiate administrative cases.

II. GENERAL ALLEGATIONS

7. Respondent is the current owner and operator of the Dr. Charles W. Solomon Water Purification Plant located at 50 Reservoir Road, Lebanon, Connecticut (the "Facility").

8. The City of Norwich, CT ("Norwich") is a municipality.

9. As a municipality, Norwich is a "person" within the meaning of Section 302(e) of the CAA, 42 U.S.C. § 7602(e).

10. At the Facility, Respondent processes, handles, and stores chlorine, which is an extremely hazardous toxic substance listed under 40 C.F.R. § 68.130.

11. Chlorine is a toxic substance that is normally shipped and stored as a liquefied compressed gas. Chlorine is a heavier-than-air gas, is non-flammable, and is a strong oxidizer. Chlorine causes respiratory distress and may burn skin, eyes, and lungs. Effects of inhalation

range from headaches, nausea, and lung irritation to severe eye, nose, and respiratory distress. Inhaling high concentrations of chlorine gas can be lethal. The substance is highly reactive and will readily mix with other substances causing further hazards. In the presence of moisture, chlorine becomes highly corrosive.

12. Pursuant to 40 C.F.R. § 68.130, any facility storing more than 2,500 pounds of chlorine is subject to the RMP regulations of 40 C.F.R. Part 68.

13. The Facility is a "stationary source," as that term is defined in 40 C.F.R. § 68.3.

14. Respondent is the "owner or operator," as that term is defined by Section 112(a)(9) of the CAA, 42 U.S.C. § 7412(a)(9), of a stationary source.

15. The Facility is a sand filtration plant designed to produce potable drinking water for municipal distribution for use by the citizens of Norwich. Chlorine gas is used in the treatment process to ensure that no levels of bacteria are present that may pose problems to the public health, safety and welfare.

16. On June 18, 1999, Respondent submitted an initial Program 3 RMP for its use, storage, and handling of chlorine at the Facility (the "1999 RMP").

17. On June 2, 2009, Respondent submitted a required five-year updated RMP for its use, storage, and handling of chlorine at the Facility (the "2009 RMP").

18. According to the 1999 RMP and the 2009 RMP, the Facility used, stored, or handled up to 16,000 pounds of chlorine at those times, well over the 2,500 pound threshold cited in 40 C.F.R. § 68.130, Table 1.

19. EPA conducted a previously-announced inspection of the Facility on April 19, 2012 (the "Inspection"). Authorized EPA inspectors and Deborah Ouellette, Chief Plant Operator, were present during the Inspection. The Inspection was conducted to determine the Facility's compliance with Sections 302-312 of the Emergency Planning and Community Right-

to-Know Act ("EPCRA"), 42 U.S.C. §§ 11002–11022, and Sections 112(r)(7) and 112(r)(1) of the CAA, 42 U.S.C. §§ 7412(r)(7) and 7412(r)(1), the RMP accident prevention program and the General Duty Clause, respectively.

20. At the time of the Inspection, the Facility had eight two-ton cylinders of chlorine (altogether weighing approximately 16,000 pounds), two of which were connected to the chlorination process. The chlorine injection area is located inside the building. The other chlorine cylinders were stored in an adjacent covered outdoor storage area. The EPA Inspection confirmed that the Facility continued to use, store, and handle approximately 16,000 pounds of chlorine on a routine basis.

21. The endpoint for a worse case release of chlorine at the Facility is greater than the distance to a public receptor.

22. As the owner and operator of a stationary source that has more than the threshold amount of a regulated substance in a covered process, Respondent is subject to the RMP provisions of Part 68.

23. In particular, Respondent's storage and handling of chlorine is subject to the requirements of Program 3, in accordance with the requirements found in 40 C.F.R. § 68.10(c), because the end point for a worst case release is greater than the distance to a public receptor and the process(es) are subject to the OSHA Process Safety Management Standard at 29 C.F.R. § 1910.119.

24. Pursuant to 40 C.F.R. § 68.190(b)(1), Respondent was required to review, update, and resubmit the Facility's RMP no later than June 2, 2014.

III. CAA VIOLATIONS

COUNT 1: Failure to Develop a Management System

25. The allegations in paragraphs 1 through 24 are incorporated by reference as if

fully set forth herein.

26. Pursuant to 40 C.F.R. § 68.15, an owner or operator of a stationary source subject to Part 68 must comply with the requirements of 40 C.F.R. Part 68 by developing and/or maintaining a management system ("Management System") to oversee the implementation of the risk management program elements at the Facility. Pursuant to 40 C.F.R. § 68.15(b), the owner or operator shall assign a qualified person or position that has the overall responsibility for the development, implementation and integration of the risk management program elements. Pursuant to 40 C.F.R. § 68.15(c), when responsibility for implementing individual requirements of this part is assigned to persons other than the person identified under subparagraph (b) above, the names or positions of these people shall be documented and the lines of authority defined through an organization chart of similar document.

27. Respondent's 2009 RMP indicates that Mr. John Bilda is the person responsible for overall implementation of the RMP program. During the Inspection, Ms. Ouellette stated that several other employees are responsible for implementing the risk management program elements. For example, Ms. Ouelette was responsible for implementing the majority of program elements and Mr. Mark Green was responsible for maintenance.

28. During the Inspection, Respondent was unable to produce documentation showing that persons other than John Bilda are responsible for implementing individual requirements of the risk management program, and defining the lines of authority through an organization chart or similar document.

29. EPA alleges that Respondent failed to develop a Management System from at least June 18, 2009, to the date of the Inspection, in violation of Section 112(r)(7)(E) of the Act, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.15.

COUNT II: Failure to Compile Process Safety Information

30. The allegations in paragraphs 1 through 29 are incorporated by reference as if fully set forth herein.

31. Pursuant to 40 C.F.R. § 68.65(a), in accordance with the schedule set forth in § 68.67, the owner or operator shall complete a compilation of written process safety information before conducting any process hazard analysis required by the rule. The compilation of written process safety information is to enable the owner or operator and the employees involved in operating the process to identify and understand the hazards posed by those processes involving regulated substances. This process safety information shall include information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process and information pertaining to the equipment in the process.

32. Pursuant to 40 C.F.R. § 68.65(c), the owner or operator shall complete a compilation of information pertaining to the technology of the process which shall include: (1) process chemistry; (2) maximum intended inventory; (3) safe upper and lower limits for such items as temperatures, pressures, flows or compositions; and (4) an evaluation of the consequences of deviations.

33. Pursuant to 40 C.F.R. § 68.65(d), the owner or operator shall complete a compilation of information pertaining to the equipment in the process which shall include: (1) piping and instrument diagrams ("P & IDs"); (2) electrical classification; (3) ventilation system design; and (4) for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, the owner or operator shall determine and document that the equipment is designed, maintained, inspected, tested, and operating in a safe manner.

34. At the time of the Inspection, EPA alleges that Respondent had not developed

and/or maintained the required PI & Ds as required by § 68.65(d)(1)(ii).

35. Pursuant to 40 C.F.R. § 68.65(d)(2), the owner or operator of a program 3 facility must document that the equipment complies with recognized and generally accepted good engineering practices. A piping identification scheme is a generally accepted good engineering practice and is an accepted industry standard for the following situations: when the contents of pipes could affect procedures during an emergency situation; when the contents of pipes are hazardous; when the flow direction is unknown; when the destination of the contents is unknown; when the flow needs to be redirected for maintenance; and when one or more valves need to be shut off for maintenance. *See* Chlorine Institute Pamphlet 6, at Section 10; Edition 15 (May 2005); American Society of Mechanical Engineers, Publication A13.1-2007.

36. At the time of the Inspection, EPA alleges that Respondent's chlorine piping was not properly labeled.

37. EPA alleges that Respondent failed to develop the required PI & Ds at the Facility, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.65(d)(1)(ii).

38. EPA alleges that Respondent failed to properly label its chlorine piping, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.65(d)(2).

COUNT III: Failure to Update Process Hazard Analysis

39. The allegations in paragraphs 1 through 38 are incorporated by reference as if fully set forth herein.

40. Pursuant to 40 C.F.R. § 68.67(f), at least every five years after the completion of the initial process hazard analysis ("PHA"), the owner or operator shall update its PHA and have it revalidated by a team meeting the requirements of § 68.67(d), to assure that the PHA is consistent with the current process. Updated and revalidated PHAs completed to comply with 29

C.F.R. 1910.119(e) are acceptable to meet the requirements of this paragraph, provided that they also consider off site consequences.

41. Pursuant to 40 C.F.R. § 68.67(c), the PHA must include: (1) the hazards of the process; (2) the identification of any previous incident which had a likely potential for catastrophic consequences; (3) engineering and administrative controls applicable to the hazards and their interrelationship such as appropriate application of detection methodologies to provide early warning of releases; (4) consequences of failure of engineering and administrative controls; (5) stationary source siting; (6) human factors; and (7) a qualitative evaluation of a range of the possible safety and health effects of failure of controls.

42. Pursuant to 40 C.F.R. § 68.67(g), the owner or operator shall retain PHAs and updates or revalidations for each process covered by § 68.67, as well as the documented resolution of recommendations described in paragraph (e) of § 68.67 for the life of the process.

43. Respondent performed its initial process hazard analysis in 1997. The CDX RMP records for the Facility list a PHA completion date of March 3, 1998. After receiving notice of EPA's inspection sent on March 23, 2012, Respondent performed a PHA for the Facility dated April 11, 2012. During the Inspection, Ms. Ouellette stated that the Facility did not conduct a PHA between 1997 and 2012. Although the 2009 CDX RMP records for the Facility identify a PHA completion date of May 26, 2009, the Facility did not have this document in its records. Additionally, the April 11, 2012 PHA did not meet all the requirements of 40 C.F.R. § 68.67(c). It did not address stationary source siting or evaluate the hazards associated with the covered outdoor storage area as this area was not equipped with a chlorine detector at the time of the Inspection.

44. EPA alleges that Respondent failed to update its PHA at least every five years and to address all of the elements set forth in 40 C.F.R. § 68.67(c) in its 2012 PHA, and to maintain

records of such, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. §§ 68.67(f), 68.67(c) and 68.67(g).

COUNT IV: Failure to Maintain Complete and Certified Written Operating Procedures

45. The allegations in paragraphs 1 through 44 are incorporated by reference as if fully set forth herein.

46. Pursuant to 40 C.F.R. § 68.69(a), the owner or operator shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information, and shall address, among other requirements, safety and health considerations. Specifically, the written operating procedures shall include: (1) properties of, and hazards presented by the chemicals used in the process; (2) precautions necessary to prevent exposure, including engineering controls, administrative controls and personal protective equipment; (3) control measures to be taken if physical contact or airborne exposure occurs; and (4) safety systems and their functions.

47. Pursuant to 40 C.F.R. § 68.69(c), the operating procedures shall be reviewed as often as necessary to assure that they reflect current operating practice, including changes that result from changes in process chemicals, technology, and equipment, and changes to stationary sources. The owner or operator shall certify annually that these operating procedures are current and accurate.

48. At the time of the Inspection, Respondent's written operating procedures did not include the required health and safety information associated with chlorine gas. In addition, the operating procedures were not certified.

49. EPA alleges that Respondent failed to address safety and health considerations in its written operating procedures, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E) and 40 C.F.R.§ 68.69(a). EPA alleges that Respondent failed to certify its

operating procedures annually, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.69(c).

COUNT V: Failure to Conduct Refresher Training and Maintain Proper Training Records

50. The allegations in paragraphs 1 through 49 are incorporated by reference as if fully set forth herein.

51. Pursuant to 40 C.F.R. § 68.71(b), after receiving initial training on the process and operating procedures, each employee involved in operating a process must receive refresher training at least every three years, and more, if necessary, to ensure that the employee understands and adheres to the current operating procedures of the process. In addition, pursuant to 40 C.F.R. § 68.71(c), the owner or operator shall ascertain that each employee involved in operating a process has received and understood the training required, and shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.

52. At the time of the Inspection, Respondent had provided initial training to employees involved in the operation of the process, but did not have records to document that refresher training was provided at least every three years. Respondent provided a refresher training in April 2012, after it received notification of EPA's inspection. In addition, Respondent did not maintain records of the initial training, nor did it document how the trainer verified that the operators understood the training.

53. EPA alleges that Respondent failed to provide refresher training at least every three years, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E) and 40 C.F.R. § 68.71(b). EPA alleges that Respondent failed to maintain adequate training documentation, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R.

§ 68.71(c).

COUNT VI: Failure to Develop and Implement a Preventative Maintenance Program

54. The allegations in paragraphs 1 through 53 are incorporated by reference as if fully set forth herein.

55. Pursuant to 40 C.F.R. § 68.73(b), the owner or operator shall establish and implement written procedures to maintain the ongoing integrity of process equipment.

56. Pursuant to 40 C.F.R. § 68.73(d)(1), inspections and tests shall be performed on process equipment. Inspections and testing shall follow recognized and generally accepted good engineering practices. (2) The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience. (3) The owner or operator shall document each inspection and test that has been performed on process equipment. (4) The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier on the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

57. At the time of the Inspection, EPA alleges that Respondent had not developed and implemented a preventative maintenance program for its process equipment that met accepted industry standards and good engineering practices. Specifically, at the time of the Inspection, Respondent did not have a set schedule for inspections and maintenance of most of its process-related equipment. Rather, components were being replaced when they were not functioning.

58. EPA alleges that Respondent failed to establish and implement written procedures to maintain the ongoing integrity of process equipment, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.73(b) and 40 C.F.R. § 68.73(d).

COUNT VII: Failure to Conduct Compliance Audits

59. The allegations in paragraphs 1 through 58 are incorporated by reference as if fully set forth herein.

60. Pursuant to 40 C.F.R. § 68.79, the owner or operator is required to conduct compliance audits at least every three years to verify that its procedures and practices developed under 40 C.F.R. Part 68, Subpart D are adequate and being followed. In addition, the owner or operator is required to document such audits and maintain documentation of the two most recent compliance audit reports.

61. At the time of the Inspection, EPA alleges that Respondent had not conducted the required compliance audits. The most recent CDX RMP records for the Facility identify a compliance audit date of October 22, 2008. However, Respondent had no records to document this audit.

62. EPA alleges that Respondent failed to conduct compliance audits at least every three years to verify that its procedures and practices developed under 40 C.F.R. Part 68, Subpart D are adequate and being followed and to document such audits, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.79.

COUNT VIII: Failure to Implement Contractor Program

63. The allegations in paragraphs 1 through 62 are incorporated by reference as if fully set forth herein.

64. Pursuant to 40 C.F.R. § 68.87(b), the owner or operator shall: (1) when selecting a contractor, obtain and evaluate information regarding the contract owner or operator's safety performance and programs; (2) inform the contract owner or operator of the known potential fire, explosion, or toxic release hazards related to the contractor's work and the process; (3) explain to the contract owner or operator the applicable provisions of 40 C.F.R. Part 68, Subpart E; (4)

develop and implement safe work practices consistent with § 68.69(d), to control the entrance, presence, and exit of the contract owner or operator and contract employees in covered process areas; and (5) periodically evaluate the performance of the contract owner or operator in fulfilling their obligations as specified in paragraph (c) of this section.

65. At the time of the Inspection, Respondent had a basic contractor program in place, but the program had not been implemented for all of the contractors being used at that time at the Facility.

66. EPA alleges that Respondent failed to implement a contractor program at the Facility, in violation of Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.87(b).

IV. TERMS OF SETTLEMENT

67. Respondent certifies that it has corrected the alleged violations cited in this CAFO and will operate the Facility in compliance with Section 112(r) of the CAA and the regulations promulgated thereunder at 40 C.F.R. Part 68. Subsequent to the Inspection, Respondent provided EPA with documentation to show that the alleged violations were corrected.

68. 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.

69. 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.

70. Without admitting or denying the facts and violations alleged in this CAFO, Respondent consents to the terms and issuance of this CAFO and agrees to the payment of the civil penalty set forth herein.

71. Pursuant to Section 113(e) of the CAA, 42 U.S.C. § 7413(e), and taking into account the relevant statutory penalty criteria, the facts alleged in the Complaint and Respondent's agreement to perform a Supplemental Environmental Project ("SEP") EPA has determined that it is fair and proper to assess a civil penalty of $8,330 for the violations alleged in this matter.

Supplemental Environmental Project

72. Respondent shall complete the SEP by eliminating the use of chlorine gas at Respondent's Facility ("Chlorine Elimination SEP"), and using liquid sodium hypochlorite as a substitute for the chlorine gas. The parties agree that this SEP is intended to secure significant environmental and public health protection and benefits and will protect workers, emergency responders, and the community by eliminating the risk of chlorine gas releases.

73. Respondent shall satisfactorily complete the SEP by December 31, 2016 ("SEP Completion Date") and in accordance with the Scope of Work ("SOW") set forth in Appendix A. EPA may, in its sole discretion, extend the SEP completion date for good cause shown by Respondent in writing. The total expenditure for the Chlorine Elimination SEP is expected to be approximately one hundred fifty thousand dollars ($150,000). "Satisfactory completion" of the SEP shall mean (a) construction of the sodium hypochlorite system in accordance with the SOW; (b) commissioning of the sodium hypochlorite system; (c) decommissioning of the chlorine gas system; and (d) spending approximately $150,000 in eligible SEP costs for purposes of carrying out the SEP in accordance with this CAFO and the SOW. Eligible SEP costs include all costs incurred by Respondent in the evaluation of disinfection alternatives, engineering consultants and contractors; the design, procurement, financing, construction and commissioning of the sodium hypochlorite system and the related structural changes to the chlorination area of the

Plant; and the decommissioning of the chlorine gas system. Respondent shall include documentation of the expenditures made in connection with the SEP as part of the SEP Completion Report described below.

74. Within ten (10) days after completion of the Chlorine Elimination SEP, Respondent shall send an electronic mail message to Jim Gaffey, gaffey.jim@epa.gov, and Andrea Simpson, simpson.andrea@epa.gov, to confirm that chlorine gas has been eliminated from the Facility's disinfection process and that liquid sodium hypochlorite is being used in all former chlorine-based operations. Upon completion of the Chlorine Elimination SEP, Respondent shall submit a SEP Completion Report, as specified in paragraph 77 below.

75. Respondent hereby certifies as follows:

a. that, as of the date of executing this CAFO, Respondent is not required to perform or develop the Chlorine Elimination SEP by any federal, state, or local law or regulation, and is not required to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other action in any forum.

b. it is not party to any open federal financial assistance transaction that is funding or could be used to fund the same activity as the Chlorine Elimination SEP. To the best of Respondent's knowledge and belief after reasonable inquiry, there is no such open federal financial transaction that is funding or could be used to fund the same activity as the SEP, nor has the same activity been described in an unsuccessful federal financial assistance transaction proposal submitted to EPA within two years of the date of this settlement (unless the project was barred from funding as statutorily ineligible). For the purposes of this certification, the term "open federal financial assistance transaction" refers to a grant, cooperative agreement loan, federally-guaranteed loan guarantee, or

other mechanism for providing federal financial assistance whose performance period has not yet expired.

c. the SEP is not a project that Respondent was intending to construct, perform, or implement other than in settlement of the claims resolved in this CAFO;

d. Respondent has not received and will not receive credit for the SEP in any other enforcement action; and

e. Respondent has not received and will not receive any reimbursement for any portion of the SEP from any other person or entity.

76. Respondent shall submit SEP Progress Reports every six (6) months beginning on June 1, 2015. The SEP Progress Reports shall include:

a. a detailed description of the work that was performed on the SEP during the last six month period;

b. a description of the work that is anticipated to be completed during the next six month period; and

c. any problems encountered during the past six months and the solution(s) thereto.

77. Respondent shall submit a SEP Completion Report to EPA within forty-five (45) days of completion of the Chlorine Elimination SEP or by January 30, 2017, whichever date is sooner. The SEP Completion Report shall contain the following information:

a. a detailed description of the SEP as implemented;

b. a description of any implementation problems encountered and the solutions thereto;

c. itemized costs, documented by copies of invoices, purchase orders, receipts, canceled checks, or wire transfer records that specifically identify and itemize the individual costs associated with the SEP. Where the SEP Completion Report includes costs not eligible for SEP credit, those costs must be clearly identified as such;

d. certification that the SEP has been fully completed; and

e. the following statement, signed by the General Manager of the Norwich Public Utilities, under penalty of law, attesting that the information contained in the SEP Completion Report is true, accurate, and not misleading:

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.

78. Respondent shall submit the SEP Completion Report by first class mail or any other commercial delivery service, to:

Andrea Simpson
Senior Enforcement Counsel (Mail Code OES 04-2)
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912;

and

Jim Gaffey
Chemical Engineer (Mail Code OES 05-1)
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

79. Respondent shall maintain, for a period of three (3) years from the date of submission of the SEP Completion Report, legible copies of all research, data, and other

information upon which the Respondent relied to write the SEP Completion Report and shall provide such documentation within fourteen (14) days of a request from EPA.

80. Respondent agrees that failure to submit the SEP Completion Report shall be deemed a violation of this CAFO, and Respondent shall become liable for stipulated penalties pursuant to paragraph 83 below.

81. After receipt of the SEP Completion Report described in paragraph 77 above, EPA will notify Respondent, within sixty (60) days if EPA resources permit and in writing: (i) identifying any deficiencies in the SEP Completion Report itself and granting Respondent an additional thirty (30) days to correct any deficiencies; or (ii) indicating that the project has been completed satisfactorily; or (iii) determining that the project has not been completed satisfactorily and seeking stipulated penalties in accordance with paragraph 83 herein.

82. If EPA elects to exercise options (i) or (iii) in paragraph 81 above, Respondent may object in writing to the notice of deficiency given pursuant to this paragraph within ten (10) days of receipt of such notice, except that this right to object shall not be available if EPA found that the project was not completed satisfactorily because Respondent failed to implement or abandoned the project. EPA and Respondent shall have an additional thirty (30) days from the receipt by EPA of Respondent's objection to reach agreement on changes necessary to the SEP or SEP Completion Report. If agreement cannot be reached on any such issue within this thirty (30) day period as may be extended by the written agreement of both EPA and Respondent, EPA shall provide a written statement of its decision on adequacy of the completion of the SEP to Respondent, which decision shall be final and binding upon Respondent. Respondent agrees to comply with any requirements imposed by EPA that are not inconsistent with this CAFO as a result of any failure to comply with the terms of this CAFO. In the event that the SEP is not

completed as contemplated herein, as determined by EPA, stipulated penalties shall be due and payable by Respondent in accordance with paragraphs 83 - 86 below.

83. 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 described in paragraphs 72 and 73 above and in Appendix A, Respondent shall be liable for stipulated penalties according to the provisions set forth below:

a. For failure to submit required semi-annual progress reports, and/or provide the SEP Completion Report, Respondent shall pay $500 per day for the first thirty (30) days of violation; $750 for the next sixty (60) days of violation; and $1,000 per day for each day of violation thereafter until the deadline is achieved or the report is submitted;

b. For failure to satisfactorily complete the SEP as described in the CAFO and Appendix A (including, for example, abandoning the SEP), Respondent shall pay $750 per day for the first thirty (30) days of violation; $1,000 per day for the next sixty (60) days of violation; and $1,500 per day for each day thereafter, but the total stipulated penalty in this subsection b. shall not exceed $100,000.

84. The determination of whether the SEP has been satisfactorily completed shall be in the sole discretion of EPA.

85. Stipulated penalties as set forth in paragraph 83 above shall begin to accrue on the day after performance is due and shall continue to accrue through the final day of the completion of the activity.

86. Respondent shall pay stipulated penalties not more than fifteen (15) days after receipt of written demand by EPA for such penalties. Method of payment shall be as follows: Respondent shall submit a certified or cashier's check payable to the order of the "Treasurer,

United States of America," referencing the case name and docket numbers of this action on the face of the check, to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, MO 63197-9000

Respondent shall provide copies of each check to:

Wanda Santiago
Regional Hearing Clerk (Mail Code ORA18-1)
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

and

Andrea Simpson
Senior Enforcement Counsel (Mail Code OES 04-2)
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Interest and late charges shall be paid as stated in paragraph 87 below.

87. Pursuant to 31 U.S.C. § 3717, EPA is entitled to assess interest and penalties on debts owed to the United States and a charge to cover the cost of processing and handling a delinquent claim, as further discussed in paragraph 91 below.

88. Payment of stipulated penalties shall be in addition to any other relief available under federal law. EPA may, in its sole discretion, decide not to seek stipulated penalties or to waive any portion of the stipulated penalties that accrue pursuant to this CAFO.

89. Any public statement, oral or written, in print, film, or other media, made by Respondent or its contractors making reference to the SEP shall include 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 the Clean Air Act

90. Respondent agrees to pay a civil penalty in the amount of $8,330 in the manner described below:

a. Payment shall be in a single payment of $8,330, due no later than 30 calendar days from the date of the Final Order. If the due date for the payment falls on a weekend or federal holiday, then the due date is the next business day. The date the payment is made is considered to be the date processed by U.S. Bank, as described below. Payment must be received by 11:00 a.m. Eastern Standard Time to be considered as received that day.

b. The payment shall be made by remitting a check or making an electronic payment, as described below. The check or other payment shall designate the name and docket number of this case, be in the amount stated in part "a," above, and be payable to "Treasurer, United States of America." The payment shall be remitted as follows:

If remitted by regular U.S. mail:

U.S. Environmental Protection Agency / Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, Missouri 63197-9000

If remitted by any overnight commercial carrier:

U.S. Bank
1005 Convention Plaza
Mail Station SL-MO-C2GL
St. Louis, Missouri 63101

If remitted by wire transfer: Any wire transfer must be sent directly to the Federal Reserve Bank in New York City using the following information:

Federal Reserve Bank of New York
ABA = 021030004
Account = 68010727
SWIFT address = FRNYUS33
33 Liberty Street
New York, New York 10045

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

c. At the time of payment, a copy of the check (or notification of other type of payment) shall also be sent to:

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

and to:

Andrea Simpson, Senior Enforcement Counsel
U.S. Environmental Protection Agency, Region 1
Mail Code OES04-2
5 Post Office Square, Suite 100
Boston, MA 02109-3912

91. Pursuant to 31 U.S.C. § 3717, EPA is entitled to assess interest and penalties on debts owed to the United States and a charge to cover the cost of processing and handling a delinquent claim. Pursuant to Section 113(d)(5) of the CAA, 42 U.S.C. § 7413(d)(5), if Respondent fails to pay any of the CAA penalty amount described in paragraph 90, plus interest thereon, it will be subject to an action to compel payment, plus interest, enforcement expenses, and a nonpayment penalty. Interest will be assessed on the penalty if it is not paid by the due dates established herein. In that event, interest will accrue from the date the CAFO is signed by the Regional Judicial Officer, at the "underpayment rate" established pursuant to 26 U.S.C § 6621(a)(2). In the event that the penalty is not paid when due, an additional charge will be assessed to cover the United States' enforcement expenses, including attorneys' fees and collection costs. A quarterly nonpayment penalty will be assessed for each quarter during which the failure to pay the penalty persists. Such nonpayment penalty shall be 10 percent of the

aggregate amount of Respondent's outstanding penalties and nonpayment penalties hereunder accrued as of the beginning of such quarter.

92. The provisions of this CAFO shall be binding upon Respondent and Respondent's successors and assigns.

93. Respondent shall bear its own costs and attorneys' fees in this proceeding and specifically waives any right to recover such costs pursuant to the Equal Access to Justice Act, 5 U.S.C. § 504, or other applicable laws.

94. This CAFO constitutes a settlement by EPA of all claims for civil penalties pursuant to Section 113 of the CAA for the violations specifically alleged in this CAFO. Compliance with this CAFO shall not be a defense to any other actions 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. This CAFO in no way relieves Respondent or its employees of any criminal liability. Nothing in this CAFO shall be construed to limit the authority of the United States to undertake any action against Respondent in response to conditions which may present an imminent and substantial endangerment to the public.

95. Nothing in this CAFO shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions if Respondent is in violation of this CAFO or continues to be in violation of the statutes and regulations upon which the allegations in this CAFO are based, or for Respondent's violation of any other applicable provision of federal, state or local law.

96. The undersigned representative of Respondent certifies that he or she is fully authorized by Respondent to enter into the terms and conditions of this CAFO and to execute and legally bind Respondent to it.

97. In accordance with 40 C.F.R. § 22.31(b), the effective date is the date on which this

CAFO is filed with the Regional Hearing Clerk.

FOR RESPONDENT, CITY OF NORWICH

Date: 3-24-15

John Bilda
General Manager, Norwich Public Utilities

FOR COMPLAINANT, United States Environmental Protection Agency:

Susan Studlien

Date: 03/27/15

Susan Studlien
Director
Office of Environmental Stewardship
U.S. EPA, Region 1

VII. FINAL ORDER

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

Date: 3/31/15

LeAnn Jensen
Acting Regional Judicial Officer
U.S. EPA, Region 1

APPENDIX 1

Supplemental Environmental Project
Scope of Work
Docket No.: CAA-01-2015-0041

City of Norwich, Connecticut, Department of Public Utilities, Dr. Charles W. Solomon Water Purification plant ("WTP") has prepared this Scope of Work ("SOW") for the Supplemental Environmental Project ("SEP") that is being performed in conjunction with the Consent Agreement and Final Order ("CAFO") resulting from the above-referenced complaint.

The WTP is subject to the Risk Management Plan ("RMP") elements in Title 40 Code of Federal Regulations Part 68 as it stores the regulated substance chlorine at volumes above established threshold quantities. WTP maintains an inventory of eight (8) 2,000-lb chlorine gas cylinders that are used during the water purification process. At any given time, two (2) cylinders are connected to the chlorination process. The chlorine storage area is located on the exterior of the building, equipped with a roof structure and chain-link fencing as a barrier. The chlorine storage area is in a room immediately adjacent to the outdoor storage area.

In response to the above-referenced complaint, WTP, with the assistance of engineering consultants, has investigated various disinfection alternatives to the use of gaseous chlorine for water purification. WTP has determined that the conversion of its water treatment system to a sodium hypochlorite solution will reduce the potential risks to public health and the environment from the chlorination process and eliminate the applicability of the RMP program.

Conversion to a sodium hypochlorite feed system will entail installation of the new feed system, as well as installation of bulk storage tanks, day tanks, chemical transfer pumps, chemical metering pumps and the associated discharge piping, and instrumentation and controls within the area that is currently used to store 1-ton chlorine cylinders, and the construction of a containment structure and exterior walls to enclose the new system. Other miscellaneous construction elements include appropriate lighting, unit heaters and a ventilation system, as well as an emergency shower and eyewash station. The new sodium hypochlorite feed system will then be integrated into the existing SCADA system at the WTP.

Construction will be sequenced to provide continuous disinfection capabilities for the finished water. Upon completion of the previously-described construction, the sodium hypochlorite system will be commissioned and the chlorine gas system will be decommissioned. The existing chlorine gas feed system, along with the chain hoist, cylinder storage cradles and all associated electrical and instrumentation components will be demolished and/or removed.

All sodium hypochlorite solutions contain perchlorate as a result of the manufacturing process and chemical degradation of the hypochlorite ion. To minimize the formation of perchlorate in the hypochlorite purchased and stored at the facility, WTP will only purchase products that meet the requirements of AWWA Standard B-300 and NSA Standard 60, as they may be amended, for drinking water additives. To further minimize hypochlorite decomposition, the WTP will limit bulk storage quantities to thirty (30) days, storage tanks will minimize UV impacts, and ventilation will be sufficient to keep the storage area cool.

The total expenditure for the SEP is expected to be in excess of $150,000, which includes costs incurred to date and through completion of the SEP, and costs relating to evaluation of disinfection alternatives, engineering consultants and contractors, design, procurement, financing, construction and commission of the sodium hypochlorite system, decommissioning of the gaseous chlorine system and structural changes to the chlorination area at WTP. The SEP is consistent with the requirements of a SEP as outlined in the *EPA Supplemental Environmental Projects Policy*, effective May 1, 1998, as well as the underlying statutes or regulations. All required approvals, including those from the Connecticut Department of Public Health and local municipal entities, must be obtained prior to initiating work on the project, detailed below.

A breakdown of steps required to complete the SEP, along with a projected scheduled is summarized below:

Task:	Projected Completion Date:
Complete design of sodium hypochlorite feed system.	November 2015
Submit applications to obtain necessary approvals, including from Connecticut Department of Public Health ("DPH") and local municipal entities.[1]	January 2016
Negotiate and enter contract with contractor.	May 2016
Complete construction of new sodium hypochlorite feed system, including containment system and surrounding structure.	December 2016
Commission sodium hypochlorite system.	December 2016
Decommission chlorine gas system.	December 2016

[1] Delays in obtaining the necessary regulatory approvals from DPH or local municipal entities may affect the completion of each subsequent task and final project completion date.