**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) 7/1/15 (Date)

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

Case Docket Number CAA-01-2015-0011

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:

Town of Somerset, MA
Water Pollution Control Facility
116 Walker Street
Somerset, MA 02726

Total Dollar Amount of Receivable $ 8,000 Due Date: 7/31/15

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**

July 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: Town of Somerset, Massachusetts, Water Pollution Control Facility
Docket No. CAA-01-2015-0011

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: Clement Brown, Esq.

Enclosure

Docket No. CAA-01-2015-0011

CERTIFICATE OF SERVICE

I hereby certify that on July 1, 2015, the original and one copy of the Consent Agreement and Final Order in the Matter of Town of Somerset, Massachusetts, Water Pollution Control Facility; Docket No. CAA-01-2015-0011, were hand-delivered to the Regional Hearing Clerk and a copy was sent to Counsel for Respondent, as set forth below:

Original and one copy
by hand delivery to:

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

Copy by certified mail to:

Clement Brown, Esq.
Horvitz & Brilhante, L.L.P.
321 North Main Street
P.O. Box 2568
Fall River, Massachusetts 02722

Dated: 7/1/15

Andrea Simpson
Senior Enforcement Counsel
U.S. Environmental Protection Agency
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION 1**

| | |
|---|---|
| In the Matter of:<br><br>**Town of Somerset, Massachusetts**<br>**Water Pollution Control Facility**<br>**116 Walker Street**<br>**Somerset, Massachusetts** 02726<br><br>Respondent<br><br>Proceeding under Section 113(a) and (d) of the Clean Air Act, 42 U.S.C. § 7413(a) and (d). | **CONSENT AGREEMENT AND FINAL ORDER**<br><br>Docket No. CAA-01-2015-0011 |



Complainant, the United States Environmental Protection Agency, Region 1 ("EPA"), alleges that Respondent Town of Somerset, Massachusetts, Water Pollution Control Facility ("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. Forty 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 Somerset Water Pollution Control Facility, located at 116 Walker Street, Somerset, Massachusetts (the "Facility").

8. The Town of Somerset ("Somerset") is a municipality.

9. As a municipality, Somerset 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 wastewater treatment facility serving the citizens of Somerset. Chlorine gas is used in the wastewater treatment process to ensure that no levels of bacteria are present in the effluent that may pose problems to the public health, safety and welfare.

16. On June 18, 1999, Respondent submitted an initial Program 2 RMP for its use, storage, and handling of chlorine at the Facility (the "RMP").

17. On April 19, 2005, Respondent submitted a required five-year updated RMP for its use, storage, and handling of chlorine at the Facility. Respondent submitted another required five-year updated RMP on April 15, 2010 (the "2010 RMP").

18. According to the RMP and the 2010 RMP, the Facility used, stored, or handled up to 10,000 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 February 14, 2013 (the "Inspection"). Authorized EPA inspectors and representatives of Respondent, including Harold J. Gracia, Superintendent, 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, in the pump room at the Facility, there were five one-ton cylinders of chlorine (altogether containing approximately 10,000 pounds of chlorine), two of which were connected to the chlorination process. The EPA Inspection confirmed that the Facility continued to use, store, and handle approximately 10,000 pounds of chlorine in its process 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 2, in accordance with the requirements found in 40 C.F.R. § 68.10(c), because (a) the end point for a worst case release is greater than the distance to a public receptor, and (b) in Massachusetts, the process is not subject to the Occupational Safety and Health Agency's process safety and management standard set forth at 29 C.F.R. § 1910.119, making the process ineligible for Program 3.

## III. VIOLATIONS

### COUNT 1: Failure to Conduct Proper Offsite Consequence Analysis

24. The allegations in paragraphs 1 through 23 are incorporated by reference as if fully set forth herein.

25. Pursuant to 40 C.F.R. § 68.25(a)(2)(i), the owner or operator shall analyze and

report in the RMP one worst case release scenario that is estimated to create the greatest distance in any direction to an endpoint provided in appendix A of Part 68 resulting from an accidental release of regulated toxic substances from covered processes under worst-case conditions. Both 40 C.F.R. §§ 68.25 and 68.28 require the use of the offsite consequence analysis parameters in 40 C.F.R. § 68.22 to determine whether a toxic plume might be impeded in its spread. Forty C.F.R. § 68.22(e) requires consideration of surface roughness in conducting release scenario analyses, including the designation of either rural or urban topography, as appropriate. The term "urban" means that there are many obstacles, such as trees or buildings, in the immediate area, whereas "rural" means that there are no buildings in the immediate area, and the terrain is generally flat and unobstructed. Pursuant to 40 C.F.R. § 68.28(a), the owner or operator shall identify and analyze at least one alternative release scenario for each regulated toxic substance held in a covered process.

26. At the time of the Inspection, Respondent's offsite consequence analysis and alternative offsite release scenario identified the Facility setting as urban rather than rural. Given the lack of buildings or trees obstructing a potential release, the setting should have been identified as "rural."

27. Respondent's failure to conduct a proper offsite consequence analysis violated Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.25(a)(2)(i) and 40 C.F.R. §§ 68.28(a) and 68.22.

**COUNT 2: <u>Failure to Compile Process Safety Information</u>**

28. The allegations in paragraphs 1 through 27 are incorporated by reference as if fully set forth herein.

29. Pursuant to 40 C.F.R. § 68.48(b), the owner or operator shall ensure that the process is designed in compliance with recognized and generally accepted good engineering

practices.

30. At the time of the Inspection, the chlorine piping in the Chlorine Building at the Facility lacked adequate labeling, and did not follow industry standards for labeling, such as ANSI/ASME A13.1-2007 and Section 10 of the Chlorine Institute's Pamphlet 6, Piping Systems for Dry Chlorine (May 2005).

31. Respondent's failure to adequately label chlorine piping at the Facility violated Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.48(b).

**COUNT 3: Failure to Have Complete Written Operating Procedures**

32. The allegations in paragraphs 1 through 31 are incorporated by reference as if fully set forth herein.

33. Pursuant to 40 C.F.R. § 68.52(a), the owner or operator shall prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process. Pursuant to 40 C.F.R. § 68.52(b), the procedures shall address the following: (1) initial start-up; (2) normal operations; (3) temporary operations; (4) emergency shutdown and operations; (5) normal shutdown; (6) startup following a normal or emergency shutdown or major change that requires a hazard review; (7) consequences of deviations and steps required to correct or avoid deviations; and (8) equipment inspections.

34. At the time of the Inspection, Respondent's operating procedures were not complete. The procedures did not include: (1) temporary operations; (2) emergency shutdown operations; (3) normal shutdown; (4) startup following emergency shutdown or major change that requires a hazard review; (5) consequences of deviations and step required to correct or avoid deviations; and (6) equipment inspections.

35. Respondent's failure to maintain complete operating procedures at the Facility

violated Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.52(a) and (b).

**COUNT 4: Failure to Conduct Refresher Training**

36. The allegations in paragraphs 1 through 35 are incorporated by reference as if fully set forth herein.

37. Pursuant to 40 C.F.R. § 68.54(a), the owner or operator shall ensure that each employee presently operating a process, and each employee newly assigned to a covered process have been trained or tested competent in the operating procedures provided in § 68.52 that pertain to their duties. Forty C.F.R. § 68.54(b) requires that refresher training be provided at least every three years, and more often if necessary, to each employee operating a process to ensure that the employee understands and adheres to the current operating procedures of the process. Pursuant to 40 C.F.R. § 68.200, the owner or operator shall maintain records supporting the implementation of Part 68 for five years unless otherwise provided in subpart D of Part 68.

38. At the time of the Inspection, Respondent had not provided adequate refresher training to employees operating the process. Specifically, Respondent did not provide refresher training in emergency shutdown and operations, startup following an emergency shutdown; consequences of deviations and steps to correct or avoid deviations, and equipment inspections.

39. Respondent's failure to provide adequate refresher training to employees operating the process and failure to document such training violated Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.54(b) and 40 C.F.R. § 68.200.

**COUNT 5: Failure to Perform Equipment Testing and Inspections**

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

41. Pursuant to 40 C.F.R. § 68.56(d), the owner or operator shall perform or cause to

be performed inspections and tests on process equipment. Inspection and testing procedures shall follow recognized and generally accepted good engineering practices. The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations, industry standards or codes, good engineering practices, and prior operating experience.

42. At the time of the Inspection, Respondent had not performed inspections and tests on process-related equipment that follow recognized and generally accepted engineering practices. Specifically, Respondent did not perform and document the calibration and maintenance of the chlorine detectors. In addition, there was inadequate information about the safety and functionality of the chlorine detectors.

43. Respondent's failure to perform tests and inspections on process equipment violated Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.56(d).

**COUNT 6: Failure to Conduct Compliance Audits**

44. The allegations in paragraphs 1 through 43 are incorporated by reference as if fully set forth herein.

45. Pursuant to 40 C.F.R. § 68.58(a), the owner or operator shall certify that they have evaluated compliance with the provisions of 40 C.F.R. Part 68, Subpart C, at least every three years to verify that the procedures and practices developed under the rule are adequate and are being followed. Pursuant to 40 C.F.R. § 68.58(e), the owner or operator shall retain the two most recent compliance audit reports, but is not required to retain audit reports that are more than five years old.

46. At the time of the Inspection, Respondent had not conducted compliance audits. Mr. Gracia, the Facility Superintendent, stated that the Facility had not conducted the required compliance audits. At the time of the Inspection, the RMP records for the Facility identified a

compliance audit date of September 19, 2007, and compliance audit change completion date (expected actual date of completion of all changes resulting from the compliance audit) of December 16, 2008. There are no records of this audit or the follow-up audit that should have been performed in 2010.

47. Respondent's failure to conduct compliance audits violated Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.58(a).

**COUNT 7: Failure to Correct Risk Management Plan**

48. The allegations in paragraphs 1 through 47 are incorporated by reference as if fully set forth herein.

49. Pursuant to 40 C.F.R. § 68.195, the owner or operator of a stationary source for which a RMP was submitted shall correct the RMP as follows: (a) For any accidental release meeting the five-year accident history reporting criteria of § 68.42 and occurring after April 9, 2004, the owner or operator shall submit the data required under §§ 68.168, 68.170(j), and 68.175(l) with respect to that accident within six months of the release or by the time the RMP is updated under § 68.190, whichever is earlier; and (b) Beginning June 21, 2004, within one month of any change in the emergency contact information required under § 68.160(b)(6), the owner or operator shall submit a correction of that information.

50. At the time of the Inspection, Respondent had not made the required corrections to its RMP. The CDX RMP records for the Facility at the time of the Inspection indicated that the last change was made in April 2010. However, based on information received during the Inspection, the person responsible for the RMP and site emergency contact changed in July 2012. In addition, there was a leak from one of the chlorinators in January 2013, and the RMP had not been corrected to include that information.

51. Respondents' failure to promptly correct its RMP violated Section 112(r)(7)(E) of

the CAA, 42 U.S.C. § 7412(r)(7)(E), and 40 C.F.R. § 68.195(a) and (b).

## IV. TERMS OF SETTLEMENT

52. 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.

53. 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.

54. 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.

55. 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.

56. 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 $ 8,000 for the violations alleged in this matter.

### Supplemental Environmental Project

57. Respondent shall complete the SEP by eliminating the use of chlorine gas at Respondent's water treatment and wastewater treatment facilities ("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.

58. Respondent shall satisfactorily complete the SEP by March 31, 2017 ("SEP Completion Date") 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 million one hundred thirty-six thousand dollars ($1,136,000). "Satisfactory completion" of the SEP shall mean (a) construction of the sodium hypochlorite systems in accordance with the SOW; (b) commissioning of the sodium hypochlorite systems; (c) decommissioning of the chlorine gas systems; and (d) spending approximately $1,136,000 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 on 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 facilities; and the decommissioning of the chlorine gas systems. Respondent shall include documentation of the expenditures made in connection with the SEP as part of the SEP Completion Report described below.

59. Within seven (7) days after completion of the Chlorine Elimination SEP, Respondent shall send an electronic mail message to Len Wallace, wallace.len@epa.gov, and Andrea Simpson, simpson.andrea@epa.gov, to confirm that chlorine gas has been eliminated from the facilities' disinfection processes 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.

60. 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. 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 planning or 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.

f. all cost information provided to EPA in connection with EPA's approval of the SEP is complete and accurate and that Respondent in good faith estimates that the cost to implement the SEP is $1,136,000.

70. Respondent shall submit SEP Progress Reports every six (6) months beginning on August 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.

71. Respondent shall submit a SEP Completion Report to EPA within thirty (30) days of completion of the Chlorine Elimination SEP or by April 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 Chairman of the Somerset Board of Water and Sewer Commissioners, 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.*

72. 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

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

73. 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 ten (10) days of a request from EPA.

74. 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 77-80 below.

75. After receipt of the SEP Completion Report described in paragraph 71 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 77 herein.

76. If EPA elects to exercise options (i) or (iii) in paragraph 75 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 77- 80 below.

77. 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 57 and 58 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 $85,500.

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

79. Stipulated penalties as set forth in paragraph 77 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.

80. Respondent shall pay stipulated penalties not more than fifteen (15) days after receipt of written demand by EPA for such penalties. EPA will extend the time for payment of stipulated penalties after receipt of a timely written request for such extension from Respondent, in order to allow time for any necessary appropriation of the stipulated penalty amount pursuant to state law.

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 81 below.

81. 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 85 below.

82. 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.

83. 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.

84. Respondent agrees to pay a civil penalty in the amount of $8,000 in the manner described below:

a. Payment shall be in a single payment of $8,000, due no later than 30 calendar days from the effective 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

In addition, at the time of payment, notice of payment of the civil penalty and copies of the check should be forwarded to:

Wanda Santiago
Regional Hearing Clerk
U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (Mail Code ORA 18-1)
Boston, Massachusetts 02109-3912

and

Andrea Simpson
Senior Enforcement Counsel
Office of Environmental Stewardship (Mail Code OES04-2)
U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

85. 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 84, 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.

86. The penalty provided for herein is a "penalty" within the meaning of 26 U.S.C. § 162(f) and is not deductible for purposes of federal, state, or local taxes. Accordingly, Respondent agrees to treat all payments made pursuant to this CAFO as penalties within the meaning of 26 C.F.R. § 1.162-21, and further agrees not to use these payments in any way as, or in furtherance of, a tax deduction under federal, state or local law.

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

88. 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.

89. 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.

90. 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.

91. 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.

92. 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, TOWN OF SOMERSET, MASSACHUSETTS

Date: 6/23/15

Scott O'Brien, Chairman
Somerset Water and Sewer Commission

FOR COMPLAINANT, United States Environmental Protection Agency:

Susan Studlien

Date: 06/30/15

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: June 30, 2015

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

Appendix I
Supplemental Environmental Project
Scope of Work
Docket No. CAA-01-2015-0011

# Work Plan for Sodium Hypochlorite Conversation at the Water Treatment Facility (WTF) and Wastewater Treatment Facility (WWTF)

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The Somerset Water Pollution Control Department (SWPCD) has been issued a notice of penalty and confidential settlement offer by the United States EPA with regard to the risk management requirements for its gaseous chlorine system at the Waste Water Facility. In its review, the Somerset Board of Water and Sewer Commissioners has elected to replace the gas system at the Drinking Water Treatment Facility along with the Waste Water Facility. As a supplemental environmental project, SWPCD will convert both facilities from the existing chlorine gas system to a sodium hypochlorite storage and feed system for effluent disinfection and other process purposes at the WWTF and at its drinking water treatment facility.

Water Treatment Facility

Chlorine gas and sodium hypochlorite impact water quality very differently and can impact the pH of the finished water. In discussions with the MassDEP Southeast region, they have requested that field testing be conducted to demonstrate the performance of the new chemical and seek approval before proceeding with design phases services.

The primary purpose of the study will be multifold to meet the following objectives:

- To assure compliance with the plants' approved CT profile
- Determine pH impacts from changing from chlorine gas to sodium hypochlorite
- Determine if the pH and chlorine residual are optimized at the plant to minimize disinfection byproduct formation
- Determine optimum pH for phosphate performance and lead/copper control
- To develop an integrated finished water quality plan at the plant to meet all objectives

The chlorine gas system pre-dates the last plant upgrade in the 1990's, so the original design plans and specifications will require review to confirm existing conditions.

**Phase I – WTF Water Quality Evaluation (Chlorine Conversion)**

1. Visit the water treatment facility and collect the following data and records:

    - Existing water quality reports and SCADA trending data.
    - Collect supplemental data as need including raw and treated water parameters
    - Plans and Equipment Specifications for key process equipment
    - Chemical feed rates, feed rate ranges and control setpoints for existing feed equipment.
    - Chlorine residual in clearwell at several points

- Review currently approved CT profile

2. Inspect NaOH system and identify problems with performance of the system including injection locations and piping. Review NaOH dosage records and compare with RTW water quality computer model output to see if pH response to chemical dosing appears correct.

3. Meet with Town staff to define water quality objectives for the project and to define treatment goals with a new NaOCl disinfection system.

4. Complete water quality modeling using computer software with additional analytical water quality testing as required to project finished water quality after introduction of NaOCl. As a minimal, the following laboratory and analytical work is envisioned:

    - Collect TDS, pH, free and total chlorine, alkalinity, chloride, sulfate, TDS and calcium
    - Evaluate TTHM formation within the clearwell with additional sampling. Compare data to original tracer study
    - Complete some basic jar testing to see if predicted pH and alkalinity from modeling replicates field observations with limited jar tests

    The work will culminate with a projection of finished water quality including pH. The potential effects on clearwell pH and disinfection by-product formation will be discussed.

5. Confirm that an acidic chemical is not required in the clearwell to offset the anticipated increase in pH from addition of NaOCl.

6. Evaluate secondary impacts to existing feed system and processes such as NAOH feed systems that may require adjustment to meet finished water quality objectives identified by the project team as discussed above.

7. Interview Town staff to better understand specific operational needs and preferences for equipment location, storage and handling. Standardized equipment preferences at the Town will be incorporated into the recommendations.

8. The current target pH and chlorine residual concentration in the system will be reviewed. Low chlorine concentrations and pH will reduce DBP formation but may impact performance of the current phosphate chemical for lead and copper control. A target pH and chlorine residual concentration will be recommended to meet all these competing water quality goals and the CT profile in the facility.

9. An estimate of probable construction cost and annual operating costs will be developed for the preferred alternative.

10. Prepare sufficient numbers of report copies for the Town for review and comment. Comments will be incorporated into a final document to be distributed to Town staff and stakeholders as directed.

**Phase II – Design (Preliminary and Final) Services (for both WTF and WWTF as Noted)**

1. Evaluate various locations within the WTF to determine suitability for installation of a complete NaOCl system. Preliminary options include use of the existing chlorine gas storage area and a new building addition near the clearwell. Other potential locations will be identified and evaluated. Consider options to limit off-gassing including use of peristaltic feed pumps and/or carrier water from the plant water system. For the WWTF, the intent would be to repurpose the existing Chlorine Building with a new liquid sodium hypochlorite storage and fee system. More specifically, evaluate converting the existing scale room to a chemical storage room; converting the existing chlorinator room to a pump room; and repurposing the mechanical room as necessary for controls and other items. It is assumed that the three rooms in this existing building can be reused for the liquid system and no new building or building addition will be necessary. Chemical containment will be addressed, as well as off-gassing issues, piping, electrical, instrumentation, and potential code issues. It is also assumed the existing chlorine contact tank will be unchanged other than evaluation of the discharge and chlorine mixing systems. It is also assumed that the existing dechlorination system will be unchanged.

2. Identify and size all process components required for a complete NaOCl feed and storage system including feed pumps, piping, bulk storage tanks, day tanks transfer pumps and analytical controls and instrumentation. Prepare concept level sketches or drawings depicting the equipment layout for the various options under consideration. This is applicable for both the WTF and WWTF.

3. A SCADA and process control review will include a review of existing equipment limitations to incorporate the new equipment into the plants current control regime. This evaluation will include development of preliminary control descriptions of all new equipment. This is applicable for both the WTF and WWTF.

4. Meet with the Owner for a project "kick-off" meeting to define preferences for equipment, controls, and other features of the facilities.

5. Develop base plans for the improvements using scanned images from the 1990 plans and from the original record drawings. For WWTF, develop base plans utilizing the 1985 record drawings and other drawings as available/applicable.

6. Define building system needs and preferences driven by current building and fire codes for the proposed facilities including HVAC systems, electrical and control systems, architectural and structural systems for a complete current storage and feed system. It is anticipated that a separate enclosed room with a limited area sprinkler may be required (for each system).

7. An implementation plan complete with a suggested demolition and construction sequence will be developed for the project. This construction plan will identify all temporary

equipment that would be required to maintain current operations at a high service level while new systems are constructed and placed on line. The system will assure uninterrupted service from the facilities at all times during the implementation phase.

8. Develop a basic preliminary design memorandum describing the design. Upon Owner's approval, progress set of design documents (specifications and drawings) will be provided and submitted for review at the 95% and 100% (bid ready) completion stage. Comments and requested revisions discussed and agreed upon at subsequent review meetings will be incorporated into the design documents. Design drawings shall be 24-inches by 36-inches and shall be prepared using AutoCAD 2011 or latest version. Up to 28 drawings total are estimated.

9. Construction contract documents will be prepared (bidding, contract and technical specifications) utilizing the Construction Specification Institute (CSI) standard format and standard MGL Chapter 149 front end documents. One contract document for the WTF and WWTF is envisioned.

10. We will provide revised opinions of probable construction cost at the 95% completion stage.

11. Permits and Approvals: We will prepare and submit draft copies of each permit application listed below to the Owner for review and comment.

    WTF

    a. BRP WS 25 through the MassDEP for Approval of Water Treatment Facility Modification. As part of this permit, the following checklists will also be required to be submitted:

        1. Water Supply Facility Checklist for Hypochlorination Using Sodium Hypochlorite (NaOCl) for Permit Review/Approval

    b. BRP WS 29 through the MassDEP for Approval Chemical Systems Retrofits of Water Systems Serving more than 3,300 people

    WWTF

    a. DEP BRP WP 68 Treatment Works review and approval.

**Phase III – Bidding Services (Assumes WTF and WWTF Conversions Bid as a Single Project – One Set of Contract Documents)**

1. Upon written authorization from the Owner, assist the Owner during advertisement for public bids for construction contract. Our services under this task include the following specific items:
    a. Print a total of 30 copies of the Bid Documents (drawings and specifications) for bidders and other interested parties.
    b. Assist the Owner in advertising for and obtaining bids for the projects. Wright-Pierce will coordinate the advertisement within the Central Register and the Owner will coordinate and pay the advertising fees for the required local newspaper

advertisements.

c. Distribute bid documents to prospective bidders and maintain a record of plan holders.

d. Receive questions from prospective bidders and issue addenda as appropriate to clarify or expand the Bid Documents.

e. Attend pre-bid meeting if so desired by Owner.

f. Attend, manage, and coordinate the bid opening (general and filed sub bids, if necessary - we have assumed the project will bid as a Chapter 149 format) and prepare bid tabulation sheets. Evaluate the bids received to include bidder compliance with the submission requirements, investigate the qualifications of the apparent low bidder, and make written recommendations for contract award.

2. Assist the Owner in awarding the contracts for construction and assist the Owner at the contract signing by preparing 6 copies of contract documents suitable for execution. Review the performance and payment bonds and the certificates of insurance to verify conformance with the Owner's requirements.

3. Conduct a pre-construction conference with a written agenda and issue meeting minutes noting any comments received during the conference.

**Phase IV - Construction Administration Services (for both WTF and WWTF System Conversions)**

1. Provide general construction administration services based on a total anticipated construction duration of 6-7 months. Consult with and advise the Owner and act as the Owner's representative. Issue all of the Owner's instructions to Contractor(s) and act on behalf of the Owner.

2. Visit the sites and observe the construction activity in connection with the Contractor's work in progress:
   a. Senior staff will make visits to the sites at intervals appropriate to the various stages of construction, as necessary, in order to observe the progress and quality of the various aspects of Contractor(s)' work.

   b. If construction activities are not in conformance with the Contract Documents immediately notify the Owner and recommend a course of action for the Owner to follow

3. If during the course of construction, RPR determines that the work is not in conformance with the Contract Documents or that it will prejudice the integrity of the design concept of the Project, Wright-Pierce will reject the work after notifying and obtaining concurrence of the Owner.

4. Issue any necessary interpretations and clarifications of the Contract Documents and prepare field order and change orders as required.

5. Review and take appropriate action regarding Shop Drawings, samples and other related data submitted by the Contractor for conformance with the design concept of the Project and compliance with the Contract Documents. Verify that all required Shop Drawings are submitted by the Contractor.

6. Act as the Owner's representative, to require specialized inspection or testing of the construction materials and receive and review all certificates of inspections, tests and approvals required by laws, rules, regulations, ordinances, codes, orders or the Contract Documents.

7. Act as the interpreter of the requirements of the Contract Documents. Promptly address questions, which may arise concerning quality and acceptability of materials furnished, and execution and progress of the construction activity.

8. Based upon on-site observations and information provided by the RPR, review applications for payment including accompanying data and schedules.
   a. Advise the Owner regarding recommendations of payments made to the Contractor. Such recommendations will constitute a representation to the Owner, based on observations and review of the work, that the construction activity has progressed to the point indicated and reflected in the request for payment, and that, to the best of information and belief, the quality of such work is in accordance with the Contract Documents. In the case of unit price work, recommendations of payment will include final determinations of quantities and classifications of such work.

9. Receive and review operating and maintenance instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals which are to be assembled by Contractor(s) in accordance with the Contract Documents.

10. Review and process monthly pay requisitions and make recommendations for payment to the Owner.

11. Schedule, attend and run monthly meetings during the active construction period. Prepare and distribute PDF agendas for the meeting. Record the minutes of the meeting and distribute an electronic PDF copy to each attendee.

12. Negotiate and prepare scope of work Change Orders and Work Directive Changes, obtaining backup material from Contractor. Make recommendations to the Owner concerning Change Orders, Work Directive Changes and Field Orders.

13. Conduct a substantial completion inspection to determine if the construction activity is substantially complete for each contract. Prepare a punch list of any work items required under the Contract Documents but not yet completed. Provide a schedule and cost estimate to perform the punch list work and issue a certificate of substantial completion should the project be deemed substantially complete.

14. Conduct a separate final inspection of the project upon completion of the final punch list items to determine if the completed work is acceptable. If deemed to be completed in all respects recommend, in writing, that the Owner make final payment to Contractor(s), and give written notice to the Owner and the Contractor(s) that the completed project is acceptable. Issue a balancing change order if required and provide contract closeout services.

15. Prepare and provide two sets of record drawings; one set shall be in PDF format on a CD ROM and one set will be provided on paper. The record drawings will reflect changes made during the construction process, based on the marked-up prints, drawings and other data furnished by the Contractor.

16. Water Treatment Plant Operations Manual. Provide the services necessary to prepare an Operations and Maintenance (O&M) Manual. Included within the O&M manual will be a narrative that includes recommended procedures for operating the new equipment and general overview of the system. This manual is exclusive to the O&M manuals required to be provided by the various equipment manufactures. Provide the same for the WWTF liquid hypochlorite system.

17. Start-Up and Plant Commissioning Services. The new facilities will require some assistance from Wright-Pierce staff to support general start-up services to be provided by the General Contractor. A budget of 32 hours for this service is estimated for calibration, troubleshooting and oversight of commissioning by the various discipline engineers. A budget of 32 hours is estimated for similar tasks associated with the start-up and commissioning of the WWTF system.

18. Assist the Owner in obtaining resolution of outstanding or warranty items required from the Contractor. A budget of 40 hours is estimated for this service.

19. We will furnish one part-time Resident Project Representative (RPR) to assist in observing performance of the work of the Contractor. A total of 400 hours is estimated for this service.

    a. The RPR provided is assumed to be a WP employee and Somerset resident. RPR will keep the Owner advised regarding the status of the construction activities as necessary and will maintain routine contact with the project manager of Wright-Pierce.

    b. Other RPR duties to be detailed as part of the contract.

20. 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, SWPCD 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.

**Services not Included in the Work Plan**

1. Modifications to other chemical feed systems that may be recommended in Phase I.
2. It is assumed that no new buildings or building extensions will be required for either the WTF or WWTF conversion work.
3. The construction budget does not include new fire suppressions systems. A code review will need to be performed to determine if any fire suppression system work will be required at either the WTF or WWTF.
4. It is assumed that the existing chlorine contact tank at the WWTF will continue to be used and no significant modifications made to such.
5. It is assumed the existing dechlorination system at the WWTF will remain "as is" with no modifications made to such.

**Proposed Budget and Construction Cost Estimate**

**Engineering Services**

The total estimated engineering costs for the project are as follows:

| | |
|---|---|
| Phase I - Water Quality Study | $30,000 |
| Phases II and III - Design and Bidding Services | $150,000 |
| Phase IV - Construction Phase Services* | $85,000 |
| Total Engineering Services | $265,000 |

*Resident Engineering services based on Chris Grillo functioning as both a project engineer and resident representative. Budget is based on 400 hours of field support for Chris over a period of 4-6 months.

**Estimated Probable Construction Cost**

The total estimated construction cost, excluding engineering services described above is $871,500. The separation of cost between water and wastewater is presented below to meet the requirements of the Town meeting warrant process:

**Wastewater Treatment Facility (WWTF)**

| | |
|---|---|
| Estimated Construction Cost | $346,000 |
| Contingency (20%) | $69,500 |
| Total | $415,500 |

**Water Treatment Facility (WTF)**

| | |
|---|---|
| Estimated Construction Cost | $380,000 |
| Contingency (20%) | $76,000 |
| Total | $456,000 |

**Cost Summary**

The total estimated project cost for all project elements including engineering, construction contingencies, and construction costs are $1,136,500. If professional services are subdivided equally between water and wastewater, than the warrant article amounts would be as follows:

| | Engineering | Construction | Total |
|---|---|---|---|
| **Water** | $147,500 | $456,000 | $603,500 |
| **Wastewater** | $117,500 | $415,500 | $533,000 |
| | | Total | $1,136,500 |

**Proposed Work Schedule for WTF ACO Water Quality Study and Hypochlorite Conversion Project**

Based on the work plan, we offer the following milestones for the engineering services and construction activities:

| Task | Projected Completion Date |
|---|---|
| Town Meeting Authorization | May 18, 2015 |
| Authorization to Proceed | July 1, 2015 |
| Submit Draft Phase I Report to Commissioners for Review | November 1, 2015 |
| Submit Draft Phase I Report to DEP | November 20, 2015 |
| Receive Approval from MassDEP | January 20, 2016 |
| Submit the Following Design Phase Deliverables | |
| Preliminary Design Memorandum | March 20, 2016 |
| Submit 95% Complete Plans and Spec's to Town | June 20, 2016 |
| Submit Forms and Plans and Spec's to MassDEP | June 27, 2016 |
| Receive approval from DEP | July 15, 2016 |
| Advertise for Bids | August 8, 2016 |
| Bid Opening | September 15, 2016 |
| Issue Notice of Award | September 30, 2016 |
| Substantial Completion | February 2017 |
| Final Completion | March 2017 |