



APPENDICES

to the

**SERVICE CONTRACT
FOR
WASTEWATER TREATMENT SYSTEM
CAPITAL IMPROVEMENTS AND ASSET MANAGEMENT**

among

THE BOROUGH OF NAUGATUCK, CONNECTICUT

and

**THE WATER POLLUTION CONTROL AUTHORITY
OF THE BOROUGH OF NAUGATUCK**

and

U.S. FILTER OPERATING SERVICES, INC.

**EXECUTION COPY
OCTOBER 25, 2001**

WWTP SERVICE CONTRACT
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APPENDIX 1

**MANAGED ASSETS, COLLECTION SYSTEM
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APPENDIX 1

MANAGED ASSETS, COLLECTION SYSTEM AND SERVICE TERRITORY DESCRIPTION

1.0 DESCRIPTION OF MANAGED ASSETS AND COLLECTION SYSTEM IN GENERAL

This Appendix 1 describes the Managed Assets and the Collection System which the Company is responsible for managing under the Service Contract. By definition, the Managed Assets and the Collection System also include the Initial Capital Improvements, the Collection System Improvements, and all other Capital Modifications, both when under construction and after being placed in service.

2.0 DESCRIPTION OF SERVICE TERRITORY

The WWTP serves the wastewater disposal needs (Sewer Influent and Septage) of the Borough (including residential and industrial connected users and leachate from the Laurel Park Superfund Site), the communities of Middlebury and Oxford, Connecticut, and approximately 250 homes in Beacon Falls, Connecticut. The Borough has entered into an agreement with the Town of Middlebury, dated May 7, 1970, as amended, for the treatment of liquid waste from Middlebury. Sewer Influent from Middlebury is received and treated at the WWTP; Septage from Middlebury is received at the Incineration Facilities. The Borough has an agreement with Oxford dated May 20, 1987, as amended, to accept and treat sewered influent. The Borough has entered into an agreement with the Town of Beacon Falls, dated August 8, 1973, as amended, to accept and treat domestic sewerage.

One industrial user, Crompton Manufacturing Company, Inc. (CMCI), discharges directly to the WWTP. The Borough and CMCI entered into a Discharge and Access Agreement in April 2001 which requires the Borough to accept and process pretreated effluent from CMCI at the WWTP.

3.0 DETAILED DESCRIPTION OF EXISTING MANAGED ASSETS

3.1 Plant Description

The Plant consists of all structures, equipment, facilities and property located on the Plant Site. The Plant Site is the parcel identified on the Borough of Naugatuck assessors Map T, as Block 20W28, with the exception of the Borough of Naugatuck Dog Pound and the areas subject to a Lease Agreement between the Lessor and Lessee for the Incineration Facilities, both of which are also contained on this parcel but are not part of the Plant Site. The Borough of Naugatuck Dog Pound is located on the northwest portion of the parcel and is completely fenced off from the Managed Assets. Both the Incineration Facilities Site,

which is subject to the Lease Agreement referenced above, and the Dog Pound are depicted on Attachment 1 to this Appendix.

The WWTP was constructed in 1954, with three subsequent upgrades. The first upgrade, completed in 1973, included the addition of secondary treatment and new sludge processing facilities. The second upgrade, completed in 1989, consisted of upgrading the aeration system from mechanical surface aerators to flexible tube, fine bubble diffused aerators in two of the six aeration tanks. Air to the new fine bubble system was supplied by three positive-displacement blowers. The third upgrade, substantially completed in 1996, consisted of adding additional fine bubble aeration capacity, installing a sodium hypochlorite disinfection system and installing a sodium bisulfite dechlorination system.

The Plant as it exists today consists of the following unit processes: influent pumping; primary settling; activated sludge secondary treatment; nitrification and partial denitrification; final settling with return and waste sludge provisions; chlorination; dechlorination and sludge storage. Several of these components are further described below.

Influent Pumping

Influent pumping consists of two constant speed pumps and two variable speed pumps. Speed is varied by liquid rheostat control of the wound rotor motors. These raw sewage pumps receive a significant grit load, which subjects the pumps to wear.

Primary Settling

The Plant has three primary settling tanks for initial settling. Two of the tanks receive municipal wastewater, and one of the tanks is dedicated to receiving pretreated wastewater directly from CMCI. Two of the tanks utilize plastic chain and flights for sludge collection and one uses steel and wood for this purpose. After primary settling, the municipal wastewater and CMCI wastewater are combined for further processing.

Secondary Treatment and Nitrification

From primary settling, the combined wastewater flows by gravity into the six aeration tanks. Aeration tanks 1, 2, 3 and 4 were upgraded and are currently designed for advanced treatment; two lines with three tanks in series for first-zone anoxic nitrification. No improvements have been made to aeration tanks 5 and 6.

Alkalinity is added during nitrification by adding soda ash from a vibrating feeder into a mixer after the primary settling tank chemical metering pumps. Sodium hydroxide (25%) is added for pH adjustment and to the odor scrubber for the filter press room storage tank and wet well.

Final Settling

Three final settling tanks are used in parallel, followed by a combined flow to a fourth tank. Three of the tanks are plastic and one is steel. Polymer can be added to the final settling tanks to enhance settling.

Sludge Handling

Primary sludge is thickened in a gravity thickener and waste activated sludge is thickened via a gravity belt thickener. Thickened sludge is stored in eight thickened sludge storage tanks, four of which are under a dome and four of which are outside with individual covers. As shown in Attachment 1 to this Appendix 1, three of the eight sludge storage tanks are part of the Managed Assets and the other five sludge storage tanks are part of the Incineration Facilities.

3.2 Receipt of System Influent

System Influent consists of Sewer Influent, Community Septage and Incineration Process Filtrate, each of which is briefly described below.

Sewer Influent consists of all flows reaching the Plant through the System from all connected sources, including residential, commercial, municipal and industrial sources. Sewer Influent includes wastewater, infiltration and inflows, pretreatment flow from the Participating Entities and landfill leachate from the Laurel Park Superfund Site. Municipal wastewater flows from Naugatuck, Middlebury, Oxford, approximately 250 homes in Beacon Falls, and leachate from the Laurel Park Superfund Site are received directly into the Plant's influent wetwell. In parallel flow, wastewater from the adjacent CMCI facility, after pretreatment and flow-equalization, discharges directly to the Plant where it flows by gravity into Primary Settling Tank No. 3. Wastewater flows conveyed to the Plant from both the Collection System and pretreated industrial wastewater from CMCI are measured at the inlet to the primary settling tanks.

Community Septage is Septage from the Borough and the Participating Entities (with the exception of Septage from Middlebury) which is delivered to the Plant other than through the Collection System. Currently, Community Septage is trucked-in to the Plant, where it is received at a pad located just outside of the sludge thickening tanks. The Plant operator has the option of sending the Community Septage directly to the influent wet well upstream of the influent pumps and municipal primary settling tanks or storing the Community Septage in a 4,000-gallon underground storage tank. The Septage in the tank can be either directed to the head end of the Plant or delivered directly to the sludge thickening tanks. Currently, Septage flows by gravity to the head end of the Plant, upstream of the influent pumps.

Incineration Process Filtrate is wastewater generated from the operation of the Incineration Facilities, including filtrate resulting from sludge and septage dewatering operations,

wastewater from the air emissions control equipment, and quenchwater removed from the ash lagoons. The combined flows are piped to the headworks of the Plant.

3.3 Existing Capacity and Capabilities of Plant

The existing capacity and capabilities for the Plant are set forth in Appendix 3.

3.4 Existing Plant Site Conditions and Access

The Plant Site is located at the southerly end of the Borough. It is bounded on the east by the Naugatuck River, on the south by the Naugatuck State Forest, on the west partially by the State Forest, and partially by a residential neighborhood, and on the north by CMCI property. The Plant discharges treated effluent to the Naugatuck River. The Plant Site is relatively level and encompasses approximately 11 acres, the boundaries of which are set forth in Attachment 1 hereto.

A State-owned active railroad track lies between the Plant Site and the Naugatuck River. Facilities' planning efforts conducted for the Borough in 1991 (Reference Document E) determined that the Plant is not within the expected 100-year flood plain boundary. In addition, it was determined that no known vegetation or wildlife species on the Connecticut Species of Special Concern list or the Federal Endangered or Threatened Species list exist at the Plant Site.

Access to the Plant Site shall be as set forth in Section 5.20 of the Service Contract. Appendix 20 includes a sketch depicting the access routes to the Plant Site.

4.0 DETAILED DESCRIPTION OF EXISTING COLLECTION SYSTEM

The Collection System consists of sanitary sewers, drains, manholes, force mains, and interceptors (including those portions of the West Side Interceptor not located within the Plant Site, the Pump Stations and sewer laterals connecting to sewer mains, but excluding service connections), together with all Collection System Improvements and Capital Modifications thereto, as the same shall be acquired, installed, constructed or reconstructed from time to time.

The majority of the components of the Collection System and the Collection System Site are depicted on a series of maps titled: Borough of Naugatuck Sanitary Sewer System, prepared by Stearns and Wheeler, 1991, a copy of which is located in the Water Pollution Control Authority and Engineering Department office. The Collection System consists of over 91 miles of sewers ranging from 6-inch to 36-inch lines (excluding laterals). The Collection System also contains approximately 1600 manholes. The Naugatuck River divides the Collection System, with the flows from the Service Territory on the east side of the river crossing at one location, conveying flows to the Plant located on the west side of the river.

The Collection System includes five (5) Pump Stations:

- Hop Hill/Golf Course Pump Station
- Platt Mills Pump Station
- Maple Hill and May Pump Station
- Inwood Pump Station
- Horton Hill Pump Station

For the purpose of the Service Contract the Collection System shall also include (i) the portion of the gravity sewer system which services the Town of Beacon Falls and is required to be maintained by the Borough in accordance with the agreement between the Borough and The Town of Beacon Falls, dated August 8, 1973 (Reference Document J); (ii) lateral sewers associated with the pneumatic ejector station associated with Platts Mills, located in the Borough and used to convey sewage from such section of the Borough to the Waterbury wastewater treatment plant; and (iii) the four-inch force main that extends from the pneumatic ejector station up to, and including, its connection into the Bristol Street Pump Station in Waterbury, but specifically excluding all other portions of this pump station.

5.0 INITIAL CAPITAL IMPROVEMENTS AND COLLECTION SYSTEM IMPROVEMENTS TO BE CONSTRUCTED BY THE COMPANY

Appendices 2 and 2A, respectively, describe Initial Capital Improvements and Collection System Improvements that are to be designed and constructed by the Company. The Company may also be called upon to design and construct future Capital Modifications.

ATTACHMENT 1

**BOROUGH OF NAUGATUCK
PLANT, INCINERATION FACILITIES
AND DOG POUND
SITE PLAN**

**SOURCE: USFOS SITE PLAN DRAWING AS
MODIFIED BY ARI 7-19-01**

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APPENDIX 2

DESCRIPTION OF INITIAL CAPITAL IMPROVEMENTS

1.0 DESCRIPTION OF INITIAL CAPITAL IMPROVEMENTS IN GENERAL

The Company shall be responsible for the permitting, design, construction, start-up, acceptance testing and achieving acceptance of the Initial Capital Improvements (ICIs) described below and as may be revised to meet Borough, DEP and EPA approval requirements. All ICI Design/Build Work shall be completed in accordance with the Contract Standards, including the ICI Design and Construction Requirements detailed in Appendix 4 and the ICI Start-up and ICI Acceptance Test Procedures and Standards detailed in Appendix 7.

The ICIs shall include all equipment, accessories, structures, items and appurtenances, including odor controls, necessary such that, as modified or added, such system(s) shall be complete and fully operational. All equipment shall be new and approved by the Borough through the procedures detailed in Appendices 4 and 5. All improvements described herein for structures, buried pipes and other buried facilities shall be designed for a minimum useful life of thirty (30) years.

2.0 WWTP UPGRADES FOR NITROGEN REMOVAL

The Company shall provide a nitrogen removal system that shall be capable of meeting the proposed TMDL effluent end of pipe load of 247.4 lbs/day total nitrogen on an average annual basis up to a Sewer Influent flow of 8.11 MGD, while meeting all other effluent requirements of Applicable Law. Completion of the nitrogen removal system shall include, at a minimum, the following elements:

- Removal of existing air diffuser systems from aeration basins 1, 2, 4 and 5 (see Attachment 1 to this Appendix).
- Installation of four (4) megaprop type submersible mixers (two (2) each in aeration basins 1 and 4), including the necessary lifting and lowering hardware. Mixers shall be similar and of equivalent quality to USFilter/EMU products type TR325.31-4/12, with propeller diameter of 2400 mm and a 31 rpm, 7.0 hp motor.
- Installation of fine bubble diffuser aeration systems in aeration basins 2, 3, 5 and 6, consisting in total of six thousand (6000) EPDM membrane disc type diffusers. Diffusers in aeration basins 2 and 5 shall be mounted on an existing manifold; diffusers in aeration basins 3 and 6 shall be mounted on a new manifold. The installation of the new aeration system shall be implemented in coordination with Appendix 16 Odor Control Plan.

- Installation of two (2) recirculation pumps, one each in aeration basins 3 and 6. Each recirculation pump shall be similar and of equivalent quality to USFilter/EMU products model KPR 760-6+T484-10/36, with a capacity of 22,600 gpm at 10-ft TDH. The pumps shall be designed for wet sump installation. The pump and motor casing shall be made of cast iron and the propeller blades shall be stainless steel.
- Installation of 36-inch recycle lines from aeration basins 1 and 3 and aeration basins 4 and 6.
- Installation of all appurtenant structures, equipment and systems necessary to make the nitrogen removal system fully functional and operational and in compliance with all local, state and federal guidelines and requirements.

The nitrogen removal system shall be constructed in such a manner that the existing system will maintain compliance with the NPDES Permit at all times.

When enacted, the Company shall be required to meet the final DEP requirements for Total Maximum Discharge Limits (TMDL) for nitrogen, currently recognized by the Borough and the Company to be an effluent total nitrogen level of 247.4 lbs/day on an annual average basis. The Company acknowledges that the ICI for nitrogen removal will achieve said performance. Further, the Company shall be fully responsible for WWTP compliance with this TMDL under all flow conditions (average and peak loading) up to the allowable flows and loadings of the WWTP (see Appendix 3).

3.0 WWTP SCADA SYSTEM

A new and fully functional SCADA system, including all related equipment and services, shall be permitted, designed, provided and installed by the Company. The Company shall demonstrate that the SCADA system meets the start-up and acceptance requirements of the Service Contract. The SCADA system shall consist of a Honeywell "PlantScape" hybrid control system, including new instrumentation and control systems for all treatment unit processes and Plant pumping equipment. The system shall include a Honeywell C200 controller, or equivalent, integrated with Honeywell input and output control points (I/O's) including a single system server installed in the Plant operations area.

Systems shall be installed to monitor and control key parameters that provide process control function. The number of I/O's shall be correlated directly with the staffing levels and complexity of the treatment processes in place at the WWTP. Component designs will be fully compatible, digital control systems that are a combination of programmable logic controllers (PLC's) and distributed process controllers (DPC's). Process computer-based graphics shall be of simple design and allow for easy understanding of the status of all processes at the WWTP. This system shall be expandable for inclusion of future operations.

SCADA system components shall include the following:

- One (1) Central Control Location (CCL) consisting of two (2) Pentium class SCADA computer servers in redundant configuration with uninterrupted power supply (UPS), surge protection and all appurtenant devices necessary for the equipment to act as a stand alone SCADA Master Controller. This system will also include two (2) laptop computers, one (1) alarm printer and one (1) report printer. Desktop and laptop computers utilized in the project shall be Dell, Gateway or approved equals.
- Approximately nine (9) PLC's, including remote I/O's with UPS, surge protection and all appurtenant devices necessary for the equipment to act as SCADA remote control devices. The PLC's will be connected to the CCL via a fiber optic LAN (Local Area Network) system. PLC's shall be Allen Bradley, Modicon or approved equals.
- Ethernet network and communications devices including leased phone lines with modem for Internet access.
- Fully licensed software including a Microsoft Windows NT based operating system, Microsoft Office (latest edition) and Cimplicity SCADA software fully customized to reflect the specific operations at the WWTP.
- Capacity for the incorporation of remote SCADA input signals from five (5) Pump Stations located throughout the Collection System as described in Appendix 2A.
- Full hard copy logic diagrams and as-built shop drawings for all equipment installed.

4.0 WWTP IMPROVEMENTS FOR ODOR CONTROL

The Company shall be fully responsible for the permitting, design, procurement, installation, construction and acceptance of odor control improvements at the Plant. The ICIs for odor control at the primary treatment area of the Plant shall include:

- Installation of a new cover on the third primary settling tank. This new cover will be similar in design and construction to the existing covers on primary settling tanks 1 and 2.
- Installation of a new scrubbing system to be connected to the third primary settling tank. This system shall consist of a catalytic activated vapor-phase carbon absorber, similar and of equivalent quality to USFilter/RJ Environmental model number C-600. The absorber shall hold 990 pounds of carbon in a 42" by 66" polypropylene vessel, and shall have a design capacity of 500 cfm.

5.0 WWTP GENERAL UPGRADES

The Company shall be responsible for making all general Plant upgrades required for compliance with Applicable Law. WWTP improvements to be completed by the Company include but are not limited to:

- The installation of toe plates on the railing system around the aeration tanks;
- The installation of hand railing around the top of the sludge thickener tanks;
- The installation of hand railing on the elevated walkway on the west side of the aeration tanks adjacent to the parking lot; and
- Repair/replacement of the stairs from the primary clarifiers to address inadequate step spacing.

6.0 INITIAL CAPITAL IMPROVEMENT ADVANCEMENT WORK

Prior to the Commencement Date, in accordance with the requirements of Section 4.5 of the Service Contract, the Company may carry out Advancement Work associated with the ICI's as described below.

6.1 WWTP Upgrades for Nitrogen Removal

- Submittal of preliminary design for all equipment, systems and sub-systems in accordance with Appendices 4 and 5;
- Upon approval by the Borough of preliminary design submittal, provide a complete final design submission to the Borough for review and approval in accordance with Appendices 4 and 5; and
- Provide complete equipment lists and specifications in accordance with Appendices 4 and 5.

6.2 WWTP SCADA System

- Submittal of preliminary design for all equipment, systems and sub-systems in accordance with Appendices 4 and 5;
- Upon approval by the Borough of preliminary design submittal, provide a complete final design submission to the Borough for review and approval in accordance with Appendices 4 and 5; and
- Provide complete equipment lists and specifications in accordance with Appendices 4 and 5.

6.3 WWTP Improvements for Odor Control

- Submittal of preliminary design and specifications for all equipment, systems and sub-systems in accordance with Appendices 4 and 5;
- Upon approval by the Borough of preliminary design and specifications, issue design and specifications for tank cover and filter in accordance with Appendices 4 and 5; and
- Upon approval of the design submission by the Borough, place order for cover and filter in accordance with Appendix 4.

ATTACHMENT 1

AERATION BASINS RETROFIT SKETCHES

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COLLECTION SYSTEM IMPROVEMENTS

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APPENDIX 2A

DESCRIPTION OF COLLECTION SYSTEM IMPROVEMENTS

1.0 DESCRIPTION OF COLLECTION SYSTEM IMPROVEMENTS IN GENERAL

The Company shall be responsible for the Collection System Improvements described in this Appendix 2A and as may be revised to meet Borough, DEP and EPA approval requirements. All design and construction activities associated with Collection System Improvements shall be completed in accordance with the Contract Standards.

2.0 COLLECTION SYSTEM IMPROVEMENTS

The Company shall complete the Collection System Improvements described below.

1. Repair or replacement of the electrical panel at the Hop Hill/Golf Course Pump Station, including the replacement of the backup emergency generator.
2. Repair or replacement of the lead pump at the Maple Hill and May Street Pump Station.
3. Repair of the float system at the Inwood Pump Station.
4. Repair of the alarm system at the Platt Mills Pump Station.
5. The complete repair or replacement of the Horton Hill Pump Station, including installation of new flow monitoring equipment and a SCADA system connecting the pump station to the CCL at the WWTP.
6. The installation of new flow monitoring equipment and a SCADA system connecting the following pump stations to the CCL at the WWTP.
 - Hop Hill/Golf Course Pump Station
 - Maple Hill and May Street Pump Station
 - Inwood Pump Station
 - Platt Mills Pump Station

3.0 REQUIREMENTS FOR THE DESIGN/BUILD OF COLLECTION SYSTEM IMPROVEMENTS

The Company shall complete the Collection System Improvements as described in Section 2.0 of this Appendix 2A. Items 5 and 6 of the improvements described in Section 2.0 shall be carried out in full accordance with Articles IX and X of the Service Contract for design, construction and acceptance of Initial Capital Improvements.

Items 1 through 4 of the Collection System Improvements described in Section 2.0 do not have to be completed in accordance with Articles IX and X of the Service Contract, but upon Substantial Completion of the Collection System Improvements described in Items 1 through 4, the Company shall document to the Borough that the work has been satisfactorily completed, in accordance with Good Engineering and Construction Practice and that the completed improvements adequately perform as designed. In the case of a repair to existing equipment, the Company shall demonstrate that the repair returns the equipment to its original capability.

Payment for all Collection System Improvements shall be made in accordance with the procedures of Section 9.5 of the Service Contract and as described in Appendix 6A.

APPENDIX 3

**ALLOWABLE SEWER INFLUENT FLOWS AND LOADINGS
AND PLANT DESIGN CAPACITY AND CAPABILITIES**

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ALLOWABLE SEWER INFLUENT FLOWS AND LOADINGS AND PLANT DESIGN CAPACITY AND CAPABILITIES

1.0 ALLOWABLE SEWER INFLUENT FLOWS AND LOADINGS AND EXISTING PLANT DESIGN CAPACITY AND CAPABILITIES

The portion of the Plant's existing design capacity and capabilities recognized to treat Sewer Influent is presented in Table 3-1. The information in Table 3-1 represents the maximum flow and loadings that the Company shall be required to receive and treat and meet contract standards from all connected sources to the System, including all wastewater, infiltration and inflow and pretreatment flow from Participating Entities and leachate from the Laurel Park Superfund Site, but specifically excluding Community Septage and Incineration Process Filtrate. In addition, the existing Plant design capacity includes the capability to receive at least 5,000,000 gallons of Community Septage per year from the Borough and the Participating Entities.

2.0 PLANT DESIGN CAPACITY AND CAPABILITIES AFTER INITIAL CAPITAL IMPROVEMENTS

The completion of the Initial Capital Improvements shall not diminish the existing capacity of the WWTP. In addition to the existing design capacity and capabilities described above, the Initial Capital Improvements shall result in a reduction of total nitrogen in the Plant's effluent waste stream to a level for compliance with the pending TMDL regulation for total nitrogen. This shall mean that the Company shall operate the Plant such that the Plant's effluent maximum end of pipe waste load discharge for total nitrogen shall not exceed 247.4 lbs/day on an average annual basis up to a Sewer Influent flow capacity of 8.11 MGD. Beyond that flow volume, the Company will utilize Prudent Industry Practice to reduce the Plant's effluent maximum end of pipe waste load discharge for total nitrogen to the extent practical, noting the limitations of the nitrogen removal system. In addition to the reduction of total nitrogen, the Plant with the ICIs shall meet all discharge requirements detailed in the NPDES Permit.

TABLE 3-1
MAXIMUM ALLOWABLE SEWER INFLUENT
FLOW AND LOADINGS

Parameter	Annual Average 24-Hour Limits (Average Daily Flow)	Peak 30-Day Average Flow Limit (Maximum Average Monthly Flow)	Peak 24-Hour Limits (Maximum Daily Flow)	Peak-Hour Flow Rate Limit
Flow	10.3 MGD	13.1 MGD	18.7 MGD	21 MGD
BOD*	25,000 lbs/day	30,500 lbs/day	45,000 lbs/day	Not Applicable (N/A)
TSS*	21,000 lbs/day	27,300 lbs/day	44,100 lbs/day	N/A
NH ₄ *	1,350 lbs/day	1,800 lbs/day	N/A	N/A
TKN*	2,250 lbs/day	2,700 lbs/day	N/A	N/A

* As measured at Monitoring Location G and reported on the monthly Discharge Monitoring Report

APPENDIX 4

**ICI DESIGN AND
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APPENDIX 4

ICI DESIGN AND CONSTRUCTION REQUIREMENTS

1.0 ICI DESIGN AND CONSTRUCTION REQUIREMENTS IN GENERAL

Subject to the terms of the Service Contract and in accordance with the Contract Standards for permitting and other approvals, the Company shall apply for and obtain all permits for the Initial Capital Improvements and shall be responsible for designing, constructing, performing start-up operations, acceptance testing, and achieving acceptance of the Initial Capital Improvements.

The ICI Design/Build Work relating to the Initial Capital Improvements shall include:

1. Obtain all necessary regulatory approvals and permits.
2. Design all necessary facilities and systems.
3. Prepare and excavate sites as required.
4. Remove and dispose of any existing, damaged or obsolete equipment as required to perform the ICI Design/Build Work, subject to Section 7.7 of the Service Contract. (Prior to said removal and disposal of damaged or obsolete equipment, the Company shall prepare a list of said equipment and obtain Borough approval for removal or disposal.)
5. Demolish and dispose of any demolition and construction debris and clean the sites.
6. Re-route, replace and install utilities as required.
7. Construct all necessary buildings, facilities and systems.
8. Perform start-up operations and start-up testing of all new construction work and improvements which contain existing systems and the newly constructed systems. Start-up testing can be performed on individual subsystems as these systems are completed.
9. Conduct ICI Acceptance Tests for the completed Initial Capital Improvements and the existing systems as a completely integrated system, or as otherwise agreed to by the Borough; and
10. Perform any other work as may be required for completing the Initial Capital Improvements, including Borough acceptance of same.

2.0 PERMITTING

The Company shall prepare applications for, obtain and maintain all necessary permits and regulatory approvals required to construct and operate the Initial Capital Improvements in accordance with Section 9.3 of the Service Contract.

3.0 DESIGN

- (A) The Company shall prepare and complete the design for the Initial Capital Improvements in accordance with the provisions of the Service Contract.
- (B) All design documents shall comply with the ICI Design and Construction Requirements. Should there be an inconsistency in the Design Criteria as defined by ICI Design and Construction Requirements, then the Company shall make a recommendation to the Borough based on its professional experience and in accordance with Good Engineering and Construction Practices, as to the criteria to use to best satisfy Service Contract conditions. The Borough shall have the right to approve or reject said recommendation within a reasonable time of submission of said recommendation to the Borough, in accordance with the provisions of Appendix 5.
- (C) Architects and engineers preparing the design documents shall be experienced and qualified to provide such services. Plans and specifications prepared for completion of the ICI Design/Build Work shall bear the seal of a State of Connecticut registered professional engineer and/or registered architect who directed and was in responsible charge of the design.
- (D) The Company shall develop design documents for review and approval by the Borough as provided in the Service Contract, and for review and approval by the EPA, DEP or other appropriate agencies, if such review is required. After review by the Borough and after approval of said design documents by the EPA, DEP and other appropriate agencies (if required), the Company shall mobilize for construction and begin procurement of long-lead-time items in accordance with the agreed upon schedule.
- (E) The Borough shall have the right to review all design documents for the Initial Capital Improvements in accordance with the provisions of Appendix 5. The Borough shall conduct its review in accordance with review times and procedures as described in Appendix 5 and by the Service Contract.
- (F) The Company shall provide the Borough monthly progress reports detailing the design elements of the ICI Design/Build Work accomplished during the previous month. The monthly progress reports shall include: a summary of accomplished work activities; a summary of next month's work activities; a list of submittals

delivered for the report month; a list of submittals scheduled for the next month, and an updated progress schedule which shall reflect any change in the Company's estimated construction progress schedule from that set forth in Appendix 6.

- (G) The Company and the Borough shall have the right to request changes to the ICI Design and Construction Requirements in accordance with the terms of the Service Contract.

4.0 DESIGN CRITERIA AND REQUIREMENTS

- (A) Pursuant to the Service Contract, ICI Design and Construction Requirements shall include the Design Criteria, as defined below, and conformance to the Contract Standards.
- (B) Pursuant to the Service Contract, the Company shall re-perform any ICI Design/Build Work, for which it is responsible within the Service Contract, which fails to conform to the ICI Design and Construction Requirements, without additional compensation from the Borough.
- (C) Design Criteria means the following:
 1. Reliability criteria for the appropriate treatment class as defined in "Design Criteria for Mechanical, Electrical and Fluid System and Component Reliability", published by the EPA in 1974, or any revisions to the criteria.
 2. Performance standards listed in the 1998 edition of the "Guide for the Design of Wastewater Treatment Works" prepared by the New England Interstate Water Pollution Control Commission, also known as TR-16, or any revisions thereto.
 3. Performance standards as listed in the latest edition of "Design of Municipal Wastewater Treatment Plants", published jointly by the American Society of Civil Engineers and the Water Environment Federation; and
 4. Standards and conditions found in the Connecticut laws, codes and regulations related to municipal and industrial wastewater.

5.0 CONSTRUCTION REQUIREMENTS

- (A) Pursuant to the Service Contract, ICI Design and Construction Requirements shall include the construction requirements described below and conformance to the Contract Standards.
- (B) The Company shall be responsible for providing uninterrupted service at the WWTP at all times throughout the ICI Design/Build Period. Unless stated otherwise in the Service Contract, the Company shall also be responsible for permit compliance

throughout this period. All ICI Design/Build Work will be carried out in accordance with the Construction Management Plan included in Attachment 1 to this Appendix 4.

- (C) The Company shall provide on-site quality control and quality assurance services in accordance with the Construction Management Plan included in Attachment 1 to this Appendix 4. The Company shall prepare and submit to the Borough a revised quality control and quality assurance plan, that will specifically address the requirements of the final design of the ICIs detailing the action which the Company shall take to control and demonstrate quality of construction. The revised quality control and quality assurance plan shall be submitted to the Borough prior to the start of construction. The quality control and quality assurance plan shall identify all shop and field testing to be performed during construction and list all testing, along with state certified independent testing laboratories or testing services that will perform the work.

6.0 CONSTRUCTION WORK MONITORING, TESTING AND OBSERVATION

- (A) The Borough shall have the right to monitor and observe progress of construction work in the manner provided in the Service Contract.
- (B) The Company shall afford the Borough an opportunity to monitor all testing and give the Borough at least five (5) business days advanced notice of the conduct of all testing. In accordance with the quality control and quality assurance plan, the Company shall deliver to the Borough or cause the certified independent testing laboratories or testing services to send the Borough all required certificates of inspection, testing reports and all written testing documentation.
- (C) The Borough shall reserve the right to conduct and pay for any on-site testing it deems necessary or desirable to verify that ICI Design/Build Work complies with the ICI Design and Construction Requirements. The Borough shall give the Company five (5) business days notice of testing and the Company shall have the option of conducting independent testing on split samples. The Borough shall notify the Company of the test results within one (1) business day of receipt of said results. If the Borough's testing reveals a material failure of the ICI Design/Build Work, the Company shall pay for the Borough ordered testing and promptly repair, reconstruct or otherwise make whole the construction work which failed said testing. The Company shall not be entitled to any delays in the construction schedule due to reconstruction activities resulting from failed quality control and quality assurance testing.
- (D) The Company shall provide the Borough monthly progress reports detailing construction work accomplished during the previous month. The monthly progress reports shall include a summary of accomplished work activities; a summary of next month's work activities; a list of submittals delivered for the report month; a list of submittals scheduled for the next month; and an updated progress schedule which

shall reflect any change in the Company's progress schedule from that set forth in Appendix 6.

- (E) In accordance with Article IX of the Service Contract, the Company shall give the Borough reasonable advance notice (at least five (5) business days) prior to covering work so that the Borough may monitor and observe such activities. The Borough shall provide the Company at least 48-hours notice that it intends to inspect the work to be covered. The Company shall not delay covering work for failure of the Borough or its designated representatives to monitor or observe such activities.
- (F) The Company shall afford the Borough an opportunity to make final inspection and approve ICI Design/Build Work as having been completed in accordance with Section 9.8 of the Service Contract. Final approval and acceptance of ICI Design/Build Work by the Borough or any rejection of ICI Design/Build Work or such items as are incomplete shall be made by the Borough in writing within thirty (30) days from the date of receipt by the Borough of the above notification of completion.
- (G) In the event the Borough neither accepts nor rejects the ICI Design/Build Work as complete within a thirty (30) day period after notification of completion by the Company, the work shall be deemed complete. Although the ICI Design/Build Work may be deemed complete, Borough acceptance of work shall be conditioned upon successful completion of the ICI Acceptance Tests and satisfying other acceptance requirements.

7.0 CORRECTION OF ICI DESIGN/BUILD WORK

Throughout the Term of the Service Contract, the Company at its sole cost and expense shall correct non-conforming ICI Design/Build Work in accordance with Section 9.9 of the Service Contract.

8.0 RECORD DRAWINGS AND DOCUMENTS

Upon completion of construction of the Initial Capital Improvements, the Company shall provide the Borough a set of record drawings in print and on diskette in AutoCAD.dwg format, along with the number of copies as may be requested by the Borough, to show the character and installation of all ICI Design/Build Work. For changes to the existing WWTP, the Company shall provide a set of record drawings in print which present and mark the changes to the existing WWTP. Record drawings delivered in electronic format are for the Borough's convenience only. Record drawings delivered in print shall be given for purposes of the Service Contract. At a minimum, record drawings shall include those listed in the Final Design Submittal in accordance with Appendix 5. As-built construction record drawings shall be submitted to the Borough no later than sixty (60) days following completion of all ICI Design/Build Work. The ICI Design/Build Work shall not be final and

complete without the record drawings being received by the Borough. Any modifications that are required to achieve ICI Acceptance shall be fully documented by the drawings.

ATTACHMENT 1

**CONSTRUCTION MANAGEMENT PLAN
[AS PROVIDED BY THE COMPANY
IN THEIR PROPOSAL]**

In the event of conflicts between the contents of the attached Construction Management Plan (provided by the Company in their Proposal) and the contents of this Appendix 4, Appendix 4 shall govern in all cases. Activities included in the Construction Management Plan but not described in Appendix 4 shall be a required service.

1.0 WASTEWATER TREATMENT FACILITY CONSTRUCTION PLAN

Under the direct supervision of USFOS, one prime subcontractor for construction will be utilized for the new wastewater treatment facility.

1.1 General Contractor

The prime subcontractor will be considered, as the general contractor for the project shall be responsible for all site work, concrete, masonry, structural steel, buildings, instrumentation, and equipment installations. The projected classification requirements at a minimum for the general construction of the project are as follows:

Classification

Laborer, L 1
Laborer, L2
Operator, 01
Operator, 02
Plumber/Fitter
Ironworker
Carpenter
Cement finisher

Construction equipment that will be available for the project includes Dresser crawler loader, John Deere 690, John Deere 710B Turbo, cranes, Case backhoe, tandem dump trucks, Cat 235 excavators, Rex vibratory rollers, Cat 977 track loaders, and any other necessary equipment to complete the job.

In addition, our prime subcontractor shall perform all the electrical work. It is anticipated that 10 electricians will be required at a minimum for the electrical construction portion of the project during the peak phase of the construction project. Construction equipment to be employed includes a bucket truck, ladders, conduit benders, rigid threader, coring equipment, miscellaneous hand tools, and any other necessary equipment. By the utilization of one Contractor to perform all the disciplines of construction USFOS will reinforce that the choice to utilize the design/build concept. The design/build combination allows for a single responsibility with design material efficiency.

1.2 Construction Manager

An experienced construction project manager will be assigned to the project. USFOS' project managers have over 15 years of experience in the design and management of water and wastewater facilities that the Borough of Naugatuck can directly benefit from to complete the necessary projects.

1.3 Proposed Work Schedule

Work on the Naugatuck project will proceed in general conformance with the following sequences.

1. Perform design and permitting activities
2. Procure equipment
3. Review shop drawings
4. Photographs
5. Mobilize contractors
6. Install project signs
7. Make utility one-call
8. Install erosion and sedimentation controls
9. Make exploratory excavations to confirm critical utility locations
10. Commence construction of the water treatment facility

Assuming that contract award for construction of the proposed design occurs in November 1999, it is scheduled that completion of construction will be early spring 2001. This construction completion date will allow for a two-month window for start-up of the Facility.

1.4 Project Management and Coordination

Construction activities will be managed and coordinated with the design, QA/QC, operations activities, and personnel. The construction manager will have ultimate responsibility for project management and coordination at the site.

1.5 CPM Schedule

A time-scaled CPM schedule for the project that identifies all major tasks and groups them according to design, permitting, construction, operations, administration, and management tasks will be developed. The CPM schedule for this project will be Primavera Suretrak.

1.6 Maintenance of Facility Operations during Construction

The proposed treatment methodology and the location of the system within the existing property boundaries will only slightly impact existing operations. All existing operating process units will remain operational through the entire construction period.

USFOS' experience in the operation of water and wastewater treatment facilities will be extremely valuable to ensure that the existing facility continues to operate efficiently. As the new facility will not be operational until construction has been completed, it is extremely important to maintain and operate the existing system to ensure compliance.

The minimal impact focus on existing operations is very critical as the new treatment system proceeds through the commissioning and start-up phases. All hydraulic testing, equipment checkout, instrument calibration, and complete system checkout will be performed before the system actual begins treatment. Actual water for treatment will not be introduced to the new facility until the system is completely prepared.

USFOS will utilize its proven Maintenance Management System (MMS) to provide an effective maintenance management program. In addition, an Operations and Maintenance Plan will be prepared to meet the requirements of this project.

1.7 Project Management

A written project management program will be prepared and maintained for the Borough of Naugatuck project. This comprehensive manual will include descriptions, procedures, graphics, flow charts, and all other essential elements for a well-managed project. The management program will include all elements of the project. Elements will include, but not be limited to, transfer of operational responsibility of the existing facility from the Borough to USFOS, design/construction, and start-up evaluation and testing of the constructed facility including the initial commencement phase.

The project management program will address general management and administration of the project, design/construction management, maintenance of facility operations, and staffing requirements for the different phases of the project. The manual will also discuss safety programs, project documentation and reporting, financial control and reporting, and communications with regulatory agencies as well as Borough representatives and residents. This manual will be updated annually and submitted to the Borough to verify compliance with the Construction and Operation Agreement.

1.8 QA/QC Procedures

The QA/QC plan for USFOS is attached. These documents outline established QA/QC programs that are already in use. USFOS will provide a written quality control program for the Naugatuck project that incorporates these existing QA/QC procedures to assure that the facilities constructed are safe, reliable, durable, and in compliance with all codes, laws, and applicable regulations. The quality control program will define the procedures and practices that will be followed to achieve these assurances.

USFOS will also employ an independent testing laboratory to perform field and laboratory testing of materials.

Monthly reports shall be provided to the Borough to document compliance with the quality control program. The report will summarize quality assurance measures that were taken in the previous month and include copies of all test results and inspections performed during the month.

2.0 CONSTRUCTION QUALITY ASSURANCE PLAN INTRODUCTION

The Construction Quality Assurance Plan (CQAP) presents the program for construction quality assurance (CQA) to be implemented during construction. This document establishes a systematic program of actions which, when implemented, provide objective evidence of compliance with contract requirements.

2.1 Overall Directive

The procedures and practices set forth in the CQAP should be adhered to and specifically applied to all quality-related work on the project. It is the responsibility of all personnel performing work on the project to be familiar with and implement the requirements of the plan and the supporting procedures, plans, and technical requirements referenced in the CQAP, or otherwise specified for the project.

Conformance to the requirements of CQAP will provide results which will verify that each contract completed conforms to the specified requirements and is documented by defensible evidence that the work performed meets or exceeds the standards set forth for the project.

2.2 Objectives of the CQA Program

The objectives of the CQA program are to provide a system of procedures, practices, guidelines, and implementation, will provide the confidence that project activities are accomplished in accordance with the specified contracts, design criteria, plans, drawings, and specifications developed. This CQAP establishes requirements for developing the site-specific quality control (QC) system to be implemented at the project site. The CQAP will be implemented during all phases of the project, including construction and operation activities.

The CQAP addresses the overall aspects of the CQA program and the specific quality assurance/quality control (QA/QC) tasks during construction. This CQAP defines the methodology, practices, and controls to verify the quality of the work being performed by the contractor(s). The CQAPs are also applicable to off-site suppliers of equipment or services to the project that could affect the quality of the construction or operation activities for the project. In particular, the following items must be adhered to during the CQA activities:

- Guidelines and requirements prepared and documented in drawings and specifications.
- Construction verification as it is performed, by inspection and verification testing, so that the design features are implemented as intended.

- Evaluation of any variance to the design that may occur during construction and remediation, and its effect upon system performance.
- Complete documentation prepared and maintained during and after construction and remediation so that it can be demonstrated that the design has been implemented and that the performance requirements have been met.

2.3 Presentation of the CQAP

This CQAP is designed so that the quality control activities for all portions of the remedial action undertaken are executed and managed from a common set of quality objectives and practices. The CQA activities, as described in Section 6 and 7, addresses the minimum requirements to verify that all work is in compliance with the quality requirements set forth in the contract specifications. The described activities are consistent with the local, State, Federal, and other appropriate regulatory agencies for the types of activities performed.

The CQAP presents a description and discussion of the administrative aspects of the CQA program which are applicable throughout the course of construction to all the construction contracts involved in the project. Following this introductory section, the CQAP is organized as follows:

- **Section 2 Responsibility and Authority** - Presents the responsibility and authority of all organizations and key personnel involved in the implementation of the CQAP.
- **Section 3 Document Control** - Describes the overall requirements for QC inspections, identification of nonconformances, tracking of corrective actions, project document control, QC audits, and submittals.
- **Section 4 Nonconformances and Corrective Actions, and Variations in Work** - Describes the overall requirements for instrument calibration and maintenance, geophysical testing, chemical testing, and documentation tracking as well as outlines the procedures for addressing the variation in work.
- **Section 5 Audits** - Describes the auditing procedures.
- **Section 6 Construction Inspection** - Describes the protocol for the various stages of inspections during the construction.
- **Section 7 Testing** - Describes the required testing for the materials and equipment used during construction and installation of the system.

2.4 Construction Quality Assurance Plan Section 2: Responsibility and Authority

It is the responsibility of all project personnel to report any activities that could adversely affect the QC requirements set forth by the contract. The project QC staff is specifically responsible for identifying, reporting, documenting activities affecting quality for verifying correction of materials, and activities that do not conform to the specified contract requirements. The QC staff will maintain a close working relationship with the project management keeping them advised of all situations that if not corrected or controlled could affect the resulting quality of the project

The division of site construction activities is planned such that USFOS will act as the general contractor and be responsible for execution of the overall work. In general, USFOS and/or their authorized representative will be responsible for CQA and certain portions of the CQC. The contractors will be responsible for the construction quality control (CQC) aspects. The respective subcontractors, in turn, will be responsible for furnishing appropriate documentation (outlined in this CQAP) to USFOS.

Organization and Key Elements

USFOS will act as the general contractor and be responsible for execution of the overall work or construction quality assurance (CQA), and the subcontractors will be responsible for the construction quality control (CQC) aspects. The attached quality control organization chart shows the division of site remediation activities, CQA and CQC organizational structure for the project. USFOS will retain the services of an independent construction material testing laboratory, as necessary, to provide a proper QA check on all workmanship items. The responsibilities of key personnel involved in the CQA activities are described in the following sections.

Project Manager

The Project Manager for the project has the overall responsibility for the execution of the work and will ensure that all necessary required resources are made available for the implementation of the project. It is the responsibility of the Project Manager to ensure compliance with the requirements of the oversight agencies and to submit proper documentation as specified. The Project Manager will maintain oversight of the project through coordination of activities with the oversight agencies.

CQ/CA Coordinator

The on-site designated CQ/CA Coordinator assigned to this project will have the dual responsibility that includes the primary responsibility of construction manager. This involves the interaction with various project subcontractors to ensure that the site work is progressing in compliance with the approved design documents and supplemental plan. In addition, he is responsible for on-site CQA of the activities performed by USFOS. He will report directly to the CQ/CA Project Manager.

CQA Team

The USFOS designated CQA team consists of personnel that will be responsible for coordinating their activities and interactions with other groups involved through the CQ/CA Project Manager. The CQA team is comprised of the following USFOS disciplines and its subcontractors:

- Shop Drawing Coordinator
- Mechanical Engineer
- Electrical Engineer
- Instrumentation
- Civil Engineer
- Structural Engineer
- Hydrogeological
- Equipment Procurement
- Material Testing (Independent Testing Laboratory)
- Pipe Testing and all other required testing (Contractor)

As evidenced by the designations, the CQA team will be responsible for various functions as noted. The Shop Drawing Coordinator will be responsible for channeling and development of the shop drawings. Specifically, his/her responsibilities will include receiving the equipment vendor and subcontractor shop drawings, forwarding them to the appropriate approval person(s) in the CQA Team. Including returning the documents with the applicable approval stamps to the respective subcontractor and equipment vendors. The vendors and subcontractors are not authorized to proceed with shipment of the materials, fabrication, equipment or systems prior to the written approval (or contingency acceptance) by the CQA Team.

The remaining team members shall be responsible for providing necessary support including review of shop drawings, evaluating design variances, inspection of the equipment installation, and providing necessary equipment testing/start-up assistance.

Subcontractors

The subcontractors have the responsibility for conducting the construction and remediation in accordance with the plans and specifications that have been approved by the specific regulatory agency(ies). Each of the Subcontractors will perform CQC tests, as required by Section 7 and the contract specifications, during the project construction and remediation activities. The Subcontractors must also provide CQC documentation as specified, variances, and nonconformance as outlined in the CQAP. The project-specific CQC requirements are included as an integral part of the subcontractors' specifications.

CQC Personnel

CQC personnel are individuals whose duty it is to ensure that products and services are provided in accordance with the contract plans and specifications. The CQC personnel duties may be assumed by supervisory personnel of the Subcontractors, or by an

independent third party with the necessary experience and competency in performing CQC activities.

Communication within the CQA/CQC Organization

Communication between the CQA/CQC program participants includes the exchange of information that allows work to proceed, and the required reporting so that activities can be reviewed. Communication in the form of construction documents, inspection reports, audit reports, verification test results, and periodic logs must be timely so that reviews and evaluations can be performed by all the parties responsible for the execution of the work.

The CQA/CQC organizational structure chart provides the hierarchy of communication, as well as denoting the reporting functions within the CQA/CQC organization. The lines of communication that provide links between the various groups involved in the CQA/CQC programs are indicated in the organizational chart CQA personnel and Subcontractors' CQC personnel must communicate, as required and outlined in the CQAP, to maximize the efficiency and effectiveness of the remedial actions to minimize variance or nonconformance.

CQA Meetings

CQA meetings will be held throughout the progression of the facilities construction on an as-needed basis. Progress meetings will be documented in the form of meeting minutes prepared by the CQ/CA Project Manager or designated CQA personnel, and will be maintained in the on-site CQA files. The meeting minutes must clearly record the decisions and define all the action items including the responsible party (ies) for the respective action items.

List of Subcontractors and Responsibilities

- **General** - Site work, demolition, concrete, excavation, mechanical, HVAC, instrumentation, buildings, piping, and equipment installations.
- **Electrical** - All electrical equipment and wiring of the all items associated with the project.

2.5 Construction Quality Assurance Plan Section 3: Document Control

The CQA-P is a controlled document and measurements are included to maintain the currency and use of the plan so that the QC functions defined within are in accordance with the latest specified requirements. Distribution of the plan is controlled so that all revisions to the plan are issued to the plan holders and the superseded requirements revised accordingly in the existing plans.

The issuance and distribution of the plan will be controlled by the CQA Project Manager and only controlled copies of the plan will be issued. Each controlled copy will be assigned

a control number in a sequential order. The plan will be transmitted to each plan holder and the transmittal document will reference the control number assigned. The CQA Project Manager that indicates the control and revision number, and corresponding plan holder will maintain a log. Receipt of the plan will be acknowledged and noted in the log. Controlled copies will be located in specific locations and available to the individuals performing the work.

Revisions to the plan will be made by sections or by the addition of supplemental information or amendments. The index will be revised each time any section of the plan is revised. The index will indicate the revised status of each section. A line adjacent to the revised portions in the right-hand margin of the plan will indicate revised portions of the plan. All accepted revisions to the plan will be transmitted to plan holders. Each individual or organization designated as a plan holder will be responsible for updating their copy of the plan. Copy holders will be instructed to return superseded sections to the CQA Project Manager, or show proof that they are destroyed. The superseded sections may be retained for information purposes as permitted by the CQA Project Manager. The superseded sections will be clearly marked "Information Only" on each page, and will not be used for the performance of QC activities.

Documentation

The project CQA Project Manager will establish a document control system to provide measures for the control of issue, distribution, storage, maintenance of documents relating to quality, including those of subcontractors, off-site fabricators, laboratory suppliers, vendors, and other suppliers.

Preparation, review, issuance and revisions to documents affecting construction quality will be controlled so that the specified project contract, regulatory, and permit requirements, procedures and guidelines to perform the work activities are defined, and made available to the personnel performing the work. Such documents may include, but not be limited to the following:

- Correspondence Drawings
- Procedures Plans
- Reports
- Specifications

The Contractor Project Manager or his/her designee will review the documents to verify inclusion of the appropriate quality assurance requirements.

Drawing Review

Drawings will be submitted and reviewed in accordance with USFOS' Standard Procedure for Shop Drawing Submittals.

Submittal Instructions

The shop drawings, product data, and samples shall be submitted to USFOS and the submittals shall be addressed to:

Shop Drawing Clerk USFOS
18 1 Thom Hill Road
Warrendale, PA 15086

Shop drawings, product data, and the designated subcontractor shall only submit samples. Equipment vendors or suppliers shall not submit them. All shop drawings, product data, and the subcontractor prior to submittal shall review samples not specifically prepared by the subcontractor. They shall be submitted with the subcontractor's stamp and signature. Each submittal shall be identified by specification division number and (if applicable) equipment number.

Where information is submitted which covers a number of variations of the general classes of equipment, each item shall be individually endorsed to describe exactly which parts apply to the equipment being furnished. Such endorsement shall also include the job name, contract number, and serial number of the particular item covered. Separate sheets of paper bearing this endorsement will not be acceptable unless pasted individually on the rear of each print submitted.

At the time of each submission the subcontractor shall, in writing, note any deviations that the shop drawing, product data, or samples that may be different from the requirements of the contract drawings and/or specifications. This written notice shall accompany the submission and shall be attached thereto. Where applicable, the information defining the deviation shall appear on the drawings as well as being stated in the written notice. Where written notice of deviations does not accompany the submittal, the drawing, data, or sample will be assumed to be in total compliance with the drawings and/or specifications. If the deviation is noted by USFOS or its authorized representative during the engineering review, the review shall stop immediately and the submission returned to the subcontractor as an unacceptable submission. Any item of equipment submitted without a written notice of deviation from the subcontractor which has been reviewed by USFOS or its representative shall be rejected for use on the project if, after installation, the item is found not to be in compliance with the requirements of the drawings and/or specifications. Such items of equipment will be brought into compliance by the subcontractor or removed from the site at no cost to USFOS.

Some drawings such as those for motor control centers, electrical, and instrumentation controls cannot be finally reviewed until the drawings and data of all other individual items of equipment that require electricity and controls are submitted and reviewed by the appropriate team member.

Once the subcontractor issues a shop drawing, product data, or samples for review by USFOS, the subcontractor will assume responsibility for all changes to other trade individuals necessitated by his/her selection.

If in the opinion of USFOS or its representative any information is insufficient for proper review, USFOS may elect to request additional information prior to the review of any item.

Submittals not meeting the above requirements will be returned to the subcontractor, unchecked, with an explanatory note.

The subcontractor shall include seven copies of all documents in each submission. If subcontractor cannot submit seven copies of a document, any drawing larger than 11" x 17" must be a mylar or sepia reproducible.

Schedule

The subcontractor shall prepare a Shop Drawing Schedule and submit it to USFOS within 10 days after the Notice to Proceed. The shop drawing schedule shall list all information that is to be submitted for USFOS review. The schedule shall list shop drawings, product data, and samples.

Review of Shop Drawings, Product Data, and Samples

USFOS will review the submittals and return them to the subcontractor within 30 calendar days after receipt, provided that the shop drawing submittal schedule has been properly received and approved.

The review shall only be conducted for the purpose of establishing conformity with the design concept of the project and with the information given in the contract documents. Although complete fabrication, erection, and dimensional information is required on shop drawings, they are for the subcontractor and record purposes; USFOS or its Representative will not recheck that information.

The review of a separate item as such will not indicate review of the assembly in which the item functions.

After reviewing the submittals the reviewer will return them to the subcontractor with his/her comments on the submittal. If so as indicated in the comments the subcontractor shall make any corrections required and shall return the required number of corrected copies of shop drawings, product data, or samples and resubmissions. The subcontractor shall direct specific attention in writing or by highlighting on resubmitted drawings, product data, or samples any changes to the previous submission of that particular information.

The subcontractor's stamp on any shop drawing, product data, or sample shall constitute a representation to USFOS that the subcontractor has either determined and/or verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar

data or assumes full responsibility for doing so, and its review or coordinated each shop drawing, product data, or sample with the requirements of the work and the contract documents.

No work requiring a shop drawing, product data, or sample submission shall be commenced until the submission has been reviewed by USFOS. A copy of each submittal shall be kept in good condition by the subcontractor at the site and shall be available to USFOS on demand.

The review of a submittal shall not relieve the subcontractor from his/her responsibility for any deviations from the requirements of the contract documents unless the subcontractor has in writing that notifies USFOS' of the deviation at the time of submission, and USFOS has given written acceptance of the specific deviation; nor shall any review by USFOS relieve the subcontractor from responsibility for errors or omissions in the shop drawings.

The purpose of having drawings, product data, and samples reviewed by USFOS is threefold:

- First, to assure compliance with the purpose and intent of the specifications.
- Secondly, to assist the subcontractor in interpreting the specifications so as to attempt to assist in the elimination of mistakes in the design or manufacture of equipment actually shipped to USFOS.
- Lastly, to provide USFOS with record detailed information of the products, equipment, etc., installed on this project.

The reviewed copy given to the subcontractor is to be considered as in conformance with these purposes and in no manner shall be construed so as to relieve the subcontractor from any liability or responsibility for proper design, fabrication, or compliance with the specifications; nor shall any review by USFOS relieve the subcontractor from responsibility for errors or omissions in the shop drawings.

The subcontractor shall obtain USFOS' review of drawings before equipment is fabricated or purchased.

It is to be understood by the subcontractor that final distribution copies of a previously reviewed drawing are not to be rechecked. It is also to be understood that only those portions requiring change on "furnish as corrected" and "revise and resubmit" drawings will be rechecked. It is the responsibility of the subcontractor to ensure that any changes made on resubmitted drawings are clearly indicated as a revision to the drawing and called to USFOS' attention in the transmittal letter.

The reviewer will distribute the prints as follows: three copies to the subcontractor, one copy to the CO/CA Coordinator, one copy to USFOS, and two copies retained by the reviewer.

Shop Drawing Action Stamp (Also used for product data)

USFOS or its designated representative's drawing action stamp will appear on all subcontractors' drawings that are returned. The stamp will indicate review status on each drawing.

USFOS' Shop Drawing Action Stamp is as follows:

- Reviewed
- Furnish as Corrected
- Revise and Resubmit
- Rejected

Corrections or comments made on the shop drawings during this review do not relieve the subcontractor from compliance with requirements of the drawings and specifications. This check is only for review of the general compliance with the information given in the contract documents. The subcontractor is responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his/her work with that of all other trades; and performing all work in a safe and satisfactory manner.

Review status designation on action stamp is defined as follows:

- **REVIEWED.** Denotes that the submitted information has been reviewed and no exceptions have been found. The subcontractor may furnish.
- **FURNISH AS CORRECTED (RESUBMIT ONCE CORRECTED).** Denotes that some exceptions have been found. It is the intent that the subcontractor does not need to hold up fabrication or construction of the work shown on the corrected drawing or in the letter of transmittal provided that the items are furnished as noted. Record drawings are required to be resubmitted once corrections are made by the subcontractor.
- **REVISE AND RESUBMIT.** Denotes that drawing does apply to item specified, but shows insufficient detail or has too many errors and omissions. The intent is that the subcontractor should not start fabrication or construction. Corrections are marked on drawings or concerns indicated on transmittal.
- **REJECTED.** Denotes that drawing is not according to form specified, that is; either drawing does not apply to item as specified or item shown was not

specified or drawing is poorly prepared and difficult to interpret. The intent is that the subcontractor will submit a new drawing. The notation "rejected" might indicate that no corrections were made to the drawing, but transmittal was still made to subcontractor to indicate why the document was returned.

Construction Log

Preparation and Submittal of Daily Construction Log

Construction Quality Control reporting will be addressed in the daily construction report and USFOS will document all project activities as required by the project contract. The report will cover both conforming and nonconforming work. The daily construction log (DCL) will include, but not be limited to, the following:

- Weather conditions
- Site instructions
- Nonconformance Reports (NCR)
- Results of inspections and tests
- Types of defects/causes for rejection
- Corrective actions - proposed/taken
- On-site personnel/major equipment log
- Delays and causes
- Verbal instructions.

Records

Evidence of Contract Compliance

QC records will be prepared to furnish documented evidence that design, studies, construction, and operation activities, including laboratory analysis, are in compliance with the quality requirements of the contract. The records will be consistent with the applicable sections of the project technical specifications and may include one or more of the following:

- Daily construction logs
- Technical reviews
- Inspection and test reports
- Audit reports
- Monitoring and surveillance activities
- Personnel qualifications
- Shop drawings
- As-built drawings
- Nonconformance reports/corrective actions
- Design documents
- Laboratory analyses reports

- Other specified documents.

Storage of Records

Records will be maintained and stored at the project site until the expiration of contract. On-site records will be readily retrievable for review and audit purposes by USFOS including their authorized representatives and/or the regulatory agencies. The records will be controlled so that the possibility of loss, damage, or other detrimental conditions of the records is avoided. Where it is not specified in the contract documents which organization is responsible for the retention of records, the CQA Project Manager will define record retention requirements including identification of the party responsible to maintain the records after project completion.

Indexing and Filing of Records

Indexing and filing of records will be performed only by authorized personnel and maintained in a central filing system under the direction of the CQA Project Manager.

The project record files will be organized by various project file categories, and number designations. Additional categories will be added or deleted as required. Each file folder will be divided into appropriate categories based on content, numbered, and filed sequentially within each category. Folder tabs will be marked to indicate folder numbers and file title as it appears on the file index.

A numbered file index will be prepared and updated as the designated personnel add records. The index will list the individual file folders and identify the records therein to facilitate locating the records. The index will be kept in a separate folder at the front of the project file.

Upon completion of the project, a copy of all required records will be turned over to the Owner for maintenance, in accordance with the project record management procedures. Maintenance and storage of original records will be as described in this CQAP.

Project Submittals

Project submittals specified in the contract documents and specifications will be prepared by the Contractors and submitted to the CQA personnel in accordance with the CQAP. Submittals will also include shop drawings and as-recorded drawings.

A master set of as-recorded drawings kept in the CQA Coordinator's office will be marked periodically, but no later than once each work week showing all variance from the contract documents.

The Contractor Project Manager, or designee, is responsible for the preparation and maintenance of the specified submittals for the project. Submittals will be listed in a Project Submittal Register which will be updated as required.

Submittal Register

The Contractor Submittal Register for a project will be maintained and updated as required for the contract. Submittals returned rejected or with comments requiring revisions will be so noted on the submittal register and re-entered as a revision. The CQA Coordinator will monitor the submittal register to verify submittals are being controlled, scheduled, tracked, and evaluated for status in an effective manner. The type and extent of the project being performed will determine the frequency of the monitoring activities. The project submittal register will be updated continuously, as applicable, by the Contractors and reviewed by the Chester CQA Coordinator to determine the status of the submittals and compliance to the project schedule requirements.

Submittal Preparation and Transmittal

The Subcontractor Project Manager or designee will prepare submittals. The Subcontractor Project Manager or designee prior to transmitting the submittals to USFOS will review submittals from Subcontractors or vendors. All appropriate information will be completed prior to transmittal of the submittals. Submittals will be scheduled to coincide with the need dates and adequate time allowed for review and approval in accordance with the Contract requirements.

Review and Certification of Submittals

The CQA Project Manager is responsible for the initial review and transmission of the documents to the appropriate CQA personnel (i.e., shop drawings to shop drawing coordinator, etc.). The submittals will be reviewed for conformance to specified requirements, completeness, and accuracy. Submittals requiring modifications or changes will be returned to the originator, Contractor, or vendor for corrective actions and resubmitted for review.

Resubmittals

Submittals that are reviewed and then marked revise, resubmit or rejected by USFOS will require resubmission and will be processed in the same manner as the original submittals. The submittal number used to the original submittal will be used for each resubmittal followed by sequential alphanumeric suffix for each resubmittal. The resubmittals will be re-entered on the submittal register with the new resubmittal number.

2.6 Construction Quality Assurance Plan Section 4: Nonconformances and Corrective Actions

This section addresses the procedure for reporting nonconformances and corrective action for variance from the contract document. In addition, this chapter also outlines the procedures for addressing variations in work from the contracted work.

Nonconformances and Corrective Actions

Nonconformance Report

Work, field testing, laboratory testing, or materials not conforming to the specifications or contract requirements, including noncompliances and deficiencies identified by USFOS, will be identified and documented on a Nonconformance Report (NCR). At a minimum, the NCR will detail the nonconforming conditions, recommended corrective action(s), and disposition of the corrective action(s). The NCR will remain open until the nonconforming condition has been satisfactorily resolved and verified as acceptable by the CQ/CA Project Manager.

Identification of Nonconforming Items

Items identified, as nonconforming will be documented on an NCR that, as applicable, will include the following:

- Description of nonconforming item or activity
- Detailed description of nonconformance
- Cause of nonconformance
- Referenced criteria
- Recommended disposition
- Disposition and verification of corrective action
- Affected organization

Nonconformance Tracking Register

Each identified nonconformance incident will be documented on the NCR Tracking Register which, at a minimum, will include the following information:

- NCR serial number
- Issue date
- Distribution parties
- Individual/organization assigned responsibility
- NCR closed out date and initial of party responsible for closure.

The CQ/CA Coordinator is responsible for maintaining the NCR Tracking Register and for the verification that the corrective actions were implemented and verified prior to closing the NCR. USFOS will be notified in advance of verification of the corrective actions, to permit their participation in the inspections and acceptance of the results prior to closing the NCR.

Control and Segregation

Nonconforming materials or items will be controlled to prevent inadvertent use or further processing which would cause the nonconforming condition to be inaccessible for correction. All items identified as nonconforming, will be clearly identified and segregated from acceptable items except where size, installation status, and other conditions would make it impractical to segregate from conforming items. When nonconforming items are

not segregated, they will be identified and clearly marked so that they may be easily recognized as nonconforming to prevent further activities prior to the implementation of the corrective action(s).

Disposition

The disposition of NCRs will include the necessary actions required to bring the nonconforming condition to an acceptable condition, and may include reworking, replacing, retesting, or reinspecting. Implementation of the disposition will be in accordance with the original procedural requirements, specific procedure or other CQA acceptable written instructions by the authorized party.

Documentation

USFOS notifications of noncompliance and the proposed corrective actions will be documented on an NCR and processed in accordance with the provision described in this section. Corrective actions will be implemented upon receipt of the notification. The NCR will remain open until the noncompliance status is resolved. A copy of the all noncompliance items will be available at USFOS' construction trailer.

Corrective Actions

In addition to resolving identified nonconforming conditions, corrective actions will also address the cause of adverse conditions contributing to the nonconformance and establish methods and controls to preclude the recurrence of the same or similar type of nonconformances.

The CQA Coordinator will track corrective actions to identify trends in the causes of the nonconforming conditions, and initiate necessary actions to prevent recurrence. Additionally, the CQA Coordinator will monitor the corrective actions to verify that corrective actions were properly implemented and accepted and the Nonconformance Report is closed out.

Stop Work Notice

Nonconforming conditions that affect the quality of the project, threaten safety, or cause an environmental threat will be stopped through the use of a Stop Work Notice. Stop Work Notices may also be issued in the event of insufficient corrective actions resulting in recurring nonconforming work. When a stop work situation cannot be resolved at the project level, the situation will be referred to succeeding higher levels of management for resolution.

Conflict Resolution

Conflicts arising from nonconformance and corrective actions which cannot be resolved at the project management and quality control levels will be directed to successive levels of management as necessary to assist in a resolution. All conflicts will be resolved within the specified requirements of the contract and the governing regulatory documents.

Variations in Work

All changes to the contracted work will be executed in accordance with the "USFOS Change Order Procedure."

2.7 Construction Quality Assurance Plan Section 5: Audits

The CQ/CA Project Manager is responsible for performing scheduled audits or surveillances to ensure compliance with the agencies' approved CQA procedure outlined in the plan.

Performance of Audits

The CQA Project Manager or designee will perform audits to evaluate the effectiveness of the implementation of the project CQAP and referenced plans and procedures.

Routine audits will be performed by the CQ/CA Coordinator on quality related activities.

The CQ/CA Project Manager or designee will perform scheduled audits of the project CQAP. Dependent upon the scheduled duration of the project, the initial audit will be performed as soon as practical after the start of work. Additional audits will be based upon the extent of activities being performed and the project schedule.

Documentation

The audits will be performed and appropriately documented. These documents will include all required attributes necessary to verify compliance with the Contract and regulatory requirements.

Activities Included

Audits will include activities affecting quality during construction, remediation, operation, and analytical testing for the project and will encompass both on-site and off-site activities including subcontractors' activities.

Audit Results

All nonconforming conditions identified during the audits requiring corrective actions will be re-audited or otherwise evaluated to verify that the corrective actions were properly implemented.

2.8 Construction Quality Assurance Plan Section 6: Construction Inspection

The primary function of the inspections is to establish the measurements required to verify the quality of work performed and compliance to the specified requirements, including the inspection of materials and workmanship before, during, and after each definable feature of work.

Preparatory Inspection

Preparatory inspections will be performed prior to starting any definable features or work. Where more than one definable feature of work is included in one work activity, one preparatory meeting may cover the separate features of work. Likewise, a number of work activities, where feasible, can be combined into individual preparatory meetings. The responsible construction staff personnel will attend the preparatory inspection meeting including any applicable subcontractor involved with the feature of work and responsible QC staff personnel. USFOS' regional office will be notified in advance to coordinate participation in the inspection. The preparatory inspection meeting may include, but not be limited to:

- Review of pertinent contract requirements
- Review of material and equipment documentation for required tests, submittals, and approvals
- Review required quality control inspections and test requirements
- Establishment that the preliminary work required to begin the feature or work is complete and conforms to approved drawings and submittal data
- Establishment that the required materials and equipment for commencement of the work are on hand or available for use on the feature of work and that all equipment is properly calibrated and in proper working condition.
- Preparatory inspections will be reported on the daily construction logs.
- Personnel performing work activities affected by a preparatory inspection will be directed in the acceptable level of the workmanship involved for the feature of work covered by the inspection.

Initial Equipment Inspection

An initial equipment inspection will be conducted when the equipment arrives at the site. The inspection will be performed before the CQA Coordinator accepts the equipment. The equipment delivered will be confirmed to be in agreement with the shop drawings. Once the CQA Coordinator verifies the equipment, it will be accepted onto the site for installation. The initial inspections will be reported on the daily construction logs.

Follow-up Inspections

Follow-up inspections will be performed throughout the phases of work. The frequency of the follow-up inspections will be dependent upon the extent of work being performed on each particular feature of work. Follow-up inspections will be performed on all ongoing work. Follow-up inspections will also be performed on any completed work phase prior to starting subsequent phases. The CQA Coordinator will verify that the equipment is installed according to the manufacturer's specifications and to the applicable codes and

regulations. Deficiencies identified will be corrected in a timely manner or identified on a punchlist which will be used to track the progress until the work is completed and verified with the proper slip off notation on the punchlist. Deficiencies that would be made inaccessible for correction by subsequent work activities will be corrected and accepted prior to starting the new work. The follow-up inspections will be reported on the daily construction logs and copies of the inspection forms as applicable.

Completion Inspection

At the completion of all work or definable increment of work the work will be inspected for compliance with the contract plans and specifications.

The CQA Project Manager is responsible for initiating the completion inspection and verifying development of a punchlist of items that do not conform to the specified requirements including incomplete work items. The CQA Coordinator or designee will prepare the punchlist using appropriate forms to document conformance of the work to the contract requirements. Individual equipment checks will be completed to ensure each piece of equipment and controls operate to the required specifications.

The punchlist process will identify all nonconforming or incomplete work. Upon completion of the punchlist items, a second inspection will be conducted by the CQA Officer to verify that all of the items conform to the requirements.

After completing the individual equipment inspections, the total treatment system will be brought through started up and tested procedure. Another punchlist will be developed to address any new nonconforming or incomplete work. Another inspection will be conducted by the CQA Officer to verify and approve the corrections.

The CQA Project Manager will be the final authority to accept that all of the punchlist items have been corrected.

Inspection Documentation

The CQA Coordinator is responsible for the maintenance of the inspection records. Inspection records will be legible and clearly provide all information necessary to verify the items or activities inspected conform to the specified requirements, or in the case of nonconforming conditions, provide evidence that the conditions were brought into conformance or otherwise accepted by USFOS.

2.9 Construction Quality Assurance Plan Section 7: Testing

Testing Procedures

Testing procedures have been developed and will be implemented to perform the tests specified for the project. The type, number, and frequency of the tests shall be in accordance with acceptable ASTM Standards for the materials being tested and include the requirements of referenced standards and/or regulatory guidelines.

Laboratory Services

Laboratory services for soils, concrete, geotechnical and materials will be utilized to perform on-site testing during the construction phase of work covered by this plan. Chester Engineers is an approved material testing laboratory, will perform all contract specified and any other Contractor's required testing procedures. The latter testing is nonmandatory testing, which a Contractor may select to perform to check its own work.

Tests

Typical soils, geotechnical, and material tests shall be performed during construction in accordance with ASTM Standards and Requirements. Tests to be performed will be documented and will include the following information:

- Test name/procedure/frequency
- Specification section
- Responsible personnel
- Test remarks

The CQA Coordinator or his/her designee is responsible for monitoring the testing activities to verify conformance to the contract requirements. The monitoring will include project on-site testing activities and both on-site and off-site testing laboratories and includes, but is not limited to the following:

- Sampling methods, locations, and frequencies
- Testing procedures
- Test equipment utilized
- Calibrations
- Test documentation and results
- Documentation

Testing activities and results of the tests and monitoring activities shall be addressed in the daily construction log. Test reports, calibration records, and the CQ/CA Coordinator will maintain other recording forms used to document test activities. Tests performed and the results of the tests will be submitted in respective laboratory test reporting forms and noted on the daily construction log.

Specific Testing

The following sections detail the quality control responsibilities for the construction work to be completed.

Excavation, Fill, and Backfill

Testing for the excavation and fill activities have two separate requirements. One requirement is for utility and pipeline installation and one requirement is for all other site excavations.

Concrete Installation

For all concrete work, quality control testing will be done prior to placing the concrete and during placement.

Piping

Once the piping is installed, pressure and leakage testing is to be completed.

HVAC

All HVAC equipment and systems will be tested during start-up.

Electrical and Instrumentation

All electrical wiring and conduit will be UL approved. Instrumentation testing will be completed during start-up.

Equipment Installation

Equipment will be verified against the shop drawings during the initial equipment inspection and tested during the complete inspection after the equipment is installed.

**EQUIPMENT MANUFACTURER'S CERTIFICATE OF INSTALLATION TESTING AND
INSTRUCTION**

OWNER:

PROJECT:

CONTRACT NO.: _____

EQUIPMENT SPECIFICATION

SECTION: _____

EQUIPMENT DESCRIPTION

I _____ (Print Name), Authorized representative of
_____ (Print Manufacturer's name)

hereby CERTIFY that _____
(Print equipment name & model w/serial number) installed for the subject project has
(have) been installed in a satisfactory manner, has (have) been satisfactorily tested, is (are)
ready for operations, and that Owner assigned operating personnel have been suitably
instructed in the operation, maintenance, lubrication, safety and care of the unit(s).

CERTIFIED BY: _____ DATE: _____

(Signature of Manufacturer's Representative)

OWNER'S ACKNOWLEDGEMENT OF MANUFACTURER'S INSTRUCTION

I (we) the undersigned, authorized representatives of the _____
and/or Facility Operating Personnel have received the O&M Manual and class room and
hands on instruction of the operation, lubrication, maintenance and safety of the subject
equipment and are prepared to assume normal operational responsibility for the equipment.

DATE: _____

DATE: _____

DATE: _____

DATE: _____

APPENDIX 5
ICI DESIGN/BUILD REVIEW PROCEDURES

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APPENDIX 5

ICI DESIGN/BUILD REVIEW PROCEDURES

1.0 ICI DESIGN/BUILD REVIEW PROCEDURES IN GENERAL

In accordance with provisions of the Service Contract, the Borough, the Borough Engineer, and other Borough representatives will be given the opportunity to review design documentation and field construction progress for the purpose of verifying that the ICIs have been designed and built in accordance with the ICI Design and Construction Requirements (Appendix 4), the Service Contract, and the Contract Standards. In addition, the Borough will review the progress of the ICI Design/Build Work to verify payment of the Fixed ICI Design/Build Price.

The reviews and inspections by the Borough shall not affect in any way the Company's responsibilities for compliance with all Service Contract requirements, nor shall it impose any responsibility or liability on the Borough due to such review and inspection, or lack thereof.

2.0 DESIGN REVIEW

2.1 Design Review Intent

In accordance with the provisions of the Service Contract, the Borough will review the design work for consistency with ICI Design and Construction Requirements and will provide input on selected issues, such as selection of finishes, architectural treatment, and landscaping. The Borough reserves the right to review and approve the design of each ICI insofar as it relates to all matters of architectural treatment and exterior visual aesthetics, so as to insure that the appearance of the ICI is visually compatible with the existing Managed Assets and their surroundings. In addition, the Borough will review the progress of design work to verify payment for services.

The Borough's input to the design process shall be solicited by the Company as required, at monthly design progress meetings and at key stages in the design, considering the design submittal packages specified below.

The Borough recognizes that the design/build process requires that the Company and the Borough work cooperatively to assure timely design review. At a minimum, the Borough shall be afforded adequate opportunity (no less than fifteen (15) business days) for design review at:

- completion of the Preliminary Design Submittal; and
- completion of Final Design Submittals.

The Borough shall also be afforded the opportunity for design review prior to any submittal to regulatory agencies.

2.2 Design Submittal Protocol

No later than thirty (30) days after the Commencement Date or Advancement Work Commencement Date, which ever occurs first, the Company shall submit to the Borough a protocol for design submittals (Design Submittal Protocol). The Design Submittal Protocol shall identify the key submittal packages to be prepared by the Company and the expected submittal dates. A reasonable time period for Borough review and comments shall be specified in the Design Submittal Protocol. Borough review procedures and time periods shall be consistent with those in the main body of the Service Contract. The Design Submittal Protocol shall also identify the frequency of the Company's design progress meetings during various phases of the design and include monthly progress review meetings with the Borough. The Company shall supply five (5) copies of submittals to the Borough for distribution.

At a minimum, the Design Submittal Protocol shall include the following:

2.2.1 Preliminary Design Submittal

The Company shall make an initial submittal updating, as required, the design concept and project development work submitted with its proposal, including:

- Project master schedule and design period schedule
- Basis of design memorandum outline (all design disciplines)
- Technical Proposal Forms and Equipment Data Sheets to reflect design capacity and capabilities
- Design drawing list
- Specification list
- Preliminary site grading and drainage plans
- Hydraulic profile
- Process and support facility general arrangement plans
- Process flow piping and instrumentation diagrams for all processes
- Architectural floor plan view and exterior elevations
- Preliminary landscape plan
- Preliminary electrical site plan
- Electrical one-line drawings
- Mass balance

- Chemical and energy use

The Preliminary Design Submittal shall be made no later than sixty (60) days after the Commencement Date or Advancement Work Commencement Date, which ever occurs first.

2.2.2 Final Design Submittal

The Company shall make a final design submittal thirty (30) days prior to construction of any subsystem. At a minimum, each submittal shall include the following items, as applicable:

- Final basis of design memorandum
- Final Technical Proposal Forms and Equipment Data Sheets to reflect design capacity and capabilities.
- Final equipment and material specifications
- Final hydraulic profiles indicating minimum, maximum and average flow conditions
- Final architectural door, window, finish schedules
- Final architectural floor plan at each floor level and exterior elevations
- Final equipment layout plan views at each floor level with sections and details.
- Final landscaping drawings
- Final grading and drainage drawings
- Final site piping drawings
- Final outdoor lighting and electrical site drawings
- Final process and support facility piping and general arrangement drawings
- Final structural concrete drawings, including foundations, tank designs, slab and well sections and details, miscellaneous steel details and framing drawings
- Final process flow piping and instrumentation diagrams for all processes
- Final instrumentation loop control descriptions and diagram
- Final electrical one-line drawings
- Final electrical wiring diagrams and schedules to include motor control centers, lighting, power, instrumentation and control
- Final wire and conduit schedule

- Final mass balance
- Final chemical and energy use

2.3 Design Progress Meetings

The Company shall conduct monthly progress review meetings with the Borough. The meetings will be conducted at the Plant, or at another site convenient to the Borough. The Company shall record the minutes of all meetings and provide the Borough with copies of such minutes and documentation produced as a result of the meetings.

2.4 Design Changes

The procedures to be followed for incorporating any design changes requested by the Company and/or the Borough are specified in Section 9.2(D) of the Service Contract.

3.0 CONSTRUCTION REVIEW

3.1 Construction Review Intent

In accordance with the provisions of the Service Contract, the Borough will review, monitor and, as it deems necessary, inspect the construction work to ensure conformance to the ICI Design and Construction Requirements and to ensure that such construction work does not represent a substitution of lesser quality. In no event shall any construction work commence until the conditions of Section 9.4(B) of the Service Contract have been satisfied. In addition, the Borough shall review the progress of construction to verify payment for services.

3.2 Borough Access, Review Meetings

The Borough and its designated representative(s) shall have access to the WWTP at all times. The Company shall report to the Borough monthly, hold monthly progress review meetings with the Borough, and otherwise solicit the Borough's input to the process as required. The Company shall record the minutes of all meetings and construction progress, and provide the Borough with copies of minutes and documentation of said meetings.

3.3 Construction Submittal Protocol

Prior to start of construction, the Company shall submit to the Borough a protocol for construction activities (Construction Submittal Protocol). The Construction Submittal Protocol shall identify the key submittals to be prepared by the Company and the expected submittal dates. A reasonable time period for Borough review and comments shall be specified in the Construction Submittal Protocol (no less than ten (10) business days). Borough review procedures and time periods shall be consistent with those set forth in the Service Contract. The Construction Submittal Protocol shall also note the frequency of the Company's construction progress meetings and include monthly progress review meetings

with the Borough. The Company shall provide five (5) copies of submittals to the Borough for distribution.

4.0 CONSTRUCTION SUBMITTALS

The following construction submittals shall be provided to the Borough for review.

4.1 Shop Drawings

All final shop drawings shall be submitted.

4.2 Product Data

Product data shall include, but are not limited to standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, recommended spare parts listing, and printed product warranties, as applicable to the ICI Design/Build Work.

4.3 Samples

Samples shall include, but are not limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, and color/texture/pattern swatches, as applicable to the ICI Design/Build Work.

5.0 FORMAT FOR DESIGN AND CONSTRUCTION SUBMITTALS

Design and construction submittals shall be made in accordance with the Design Submittal Protocol and the Construction Submittal Protocol, and in such sequence as not to cause delay in the ICI Design/Build Work. Submittals shall contain:

1. The date of submission, noting whether it is an original submission or a resubmission.
2. The project title and number.
3. The names of:
 - a. Company
 - b. Supplier
 - c. Manufacturer

4. Identification of any deviations from Service Contract requirements.
5. Connecticut Registered P.E. and/or Registered Architect certification as applicable.

APPENDIX 6

**ICI MILESTONE PAYMENTS AND
MAXIMUM DRAWDOWN SCHEDULES**

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APPENDIX 6

**ICI MILESTONE PAYMENTS AND
 MAXIMUM DRAWDOWN SCHEDULES**

Subject to the provisions of Section 9.5 of the Service Contract, the Company shall be entitled to progress payments consistent with the completion of milestones related to each of the Initial Capital Improvements as defined in this Appendix 6. This Appendix 6 contains the milestones and associated percentages to be used to determine the amount to which the Company is entitled regarding the design, construction and acceptance of the Initial Capital Improvements. The milestones relate to completion of an activity; no payments for partial completion of each milestone will be made.

In the event that Advancement Work does not occur, the schedules for Advancement Work detailed below will be incorporated into the schedules for Commencement Work with all dates and associated costs remaining valid with the exception that the Advancement Work dates will be from the Commencement Date rather than the Advancement Work Commencement Date.

1.0 WWTP UPGRADES FOR NITROGEN REMOVAL

Table 6-1-1
Advancement Work

Milestone Description	Projected Number of Days from Advancement Work Commencement Date	Drawdown Percentage of Fixed ICI Design/Build Price	Cumulative Drawdown Percentage of Fixed ICI Design/Build Price	Maximum Dollar Drawdown of Fixed ICI Design/Build Price	Maximum Cumulative Dollar Drawdown of Fixed ICI Design/Build Price
Submittal of Preliminary Design	30	5	5	77,557	77,557
Submittal of Final Design	90	10	15	155,114	232,671
Issue Equipment List and Specs.	120	5	20	77,557	310,228

Table 6-1-2
Commencement Date Work

Milestone Description	Projected Number of Days from Commencement Date	Drawdown Percentage of Fixed ICI Design/Build Price	Cumulative Drawdown Percentage of Fixed ICI Design/Build Price	Maximum Dollar Drawdown of Fixed ICI Design/Build Price	Maximum Cumulative Dollar Drawdown of Fixed ICI Design/Build Price
Contractor On Site	210	20	40	310,227	620,455
Tank # 6 Complete	270	10	50	155,114	775,569
Tank # 3 Complete	300	5	55	77,557	853,125
Tank # 4 & 5 Complete	330	8	63	124,091	977,216
Tank #2 Complete	360	8	71	124,091	1,101,307
Tank #1 Complete	390	8	79	124,091	1,225,398
Substantial Completion	450	20	99	310,227	1,535,625
ICI Acceptance	570	1	100	15,512	1,551,137
Total		100		1,551,137	

2.0 WWTP SCADA SYSTEM

Table 6-2-1
Advancement Work

Milestone Description	Projected Number of Days from Advancement Work Commencement Date	Drawdown Percentage of Fixed ICI Design/Build Price	Cumulative Drawdown Percentage of Fixed ICI Design/Build Price	Maximum Dollar Drawdown of Fixed ICI Design/Build Price	Maximum Cumulative Dollar Drawdown of Fixed ICI Design/Build Price
Submittal of Preliminary Design	30	10	10	44,732	44,732
Submittal of Final Design	90	10	20	44,732	89,464
Issue Equipment Lists & Specs	120	20	40	89,464	178,928

Table 6-2-2
Commencement Date Work

Milestone Description	Projected Number of Days from Commencement Date	Drawdown Percentage of Fixed ICI Design/Build Price	Cumulative Drawdown Percentage of Fixed ICI Design/Build Price	Maximum Dollar Drawdown of Fixed ICI Design/Build Price	Maximum Cumulative Dollar Drawdown of Fixed ICI Design/Build Price
Design Submittal	120	10	50	44,732	223,660
SCADA Factory Test	150	10	60	44,732	268,392
MCC Delivery	180	10	70	44,732	313,124
Terminate Cable & Conduit, Tanks 3 & 6	240	5	75	22,366	335,490
Electrical Checkout, Tanks 3 & 6	270	5	80	22,366	357,856
Terminate Cable and Conduit, Tanks 1, 2, 4 and 5	300	5	85	22,366	380,222
Electrical Checkout Tanks 1, 2, 4, & 5	360	5	90	22,366	402,588
Substantial Completion	450	5	95	22,366	424,954
SCADA Acceptance	570	5	100	22,366	447,320
Total		100		447,320	

3.0 WWTP IMPROVEMENTS FOR ODOR CONTROL

Table 6-3-1
Advancement Work

Milestone Description	Projected Number of Days from Advancement Work Commencement Date	Drawdown Percentage of Fixed ICI Design/Build Price	Cumulative Drawdown Percentage of Fixed ICI Design/Build Price	Maximum Dollar Drawdown of Fixed ICI Design/Build Price	Maximum Cumulative Dollar Drawdown of Fixed ICI Design/Build Price
Submit Preliminary Design & Specs	60	5	5	4,216	4,216
Issue Design and Specs for Tank Cover & Filter	90	5	10	4,216	8,432
Place Order for Cover and Filter	120	15	25	12,647	21,079

Table 6-3-2
Commencement Date Work

Milestone Description	Projected Number of Days from Commencement Date	Drawdown Percentage of Fixed ICI Design/Build Price	Cumulative Drawdown Percentage of Fixed ICI Design/Build Price	Maximum Dollar Drawdown of Fixed ICI Design/Build Price	Maximum Cumulative Dollar Drawdown of Fixed ICI Design/Build Price
Receive Cover	150	25	50	21,079	42,158
Install Cover & Duct	180	35	85	29,511	71,669
Substantial Completion	210	10	95	8,432	80,101
ICI Acceptance	570	5	100	4,216	84,316
Total		100		84,316	

4.0 WWTP GENERAL UPGRADES

Table 6-4-1
Commencement Date Work

Milestone Description	Projected Number of Days from Commencement Date	Drawdown Percentage of Fixed ICI Design/Build Price	Cumulative Drawdown Percentage of Fixed ICI Design/Build Price	Maximum Dollar Drawdown of Fixed ICI Design/Build Price	Maximum Cumulative Dollar Drawdown of Fixed ICI Design/Build Price
Place General Contractor On Site	210	30	30	24,919	24,919
Materials to Site	270	20	50	16,612	41,531
Substantial Completion	450	45	95	37,378	78,909
ICI Acceptance	570	5	100	4,153	83,062
Total		100		83,062	

APPENDIX 7

**ICI START-UP AND ICI ACCEPTANCE TEST
PROCEDURES AND STANDARDS**

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APPENDIX 7

ICI START-UP AND ICI ACCEPTANCE TEST PROCEDURES AND STANDARDS

1.0 ICI START-UP AND ICI ACCEPTANCE TEST PROCEDURES AND STANDARDS IN GENERAL

The Company shall perform ICI Start-Up and ICI Acceptance Tests for the Initial Capital Improvements in accordance with this Appendix 7, the detailed ICI Start-Up Plan and ICI Acceptance Test Plan developed by the Company and approved by the Borough, the Contract Standards and the manufacturer's specifications.

2.0 ICI START-UP TESTING PROCEDURES

- A. After the Company reaches Substantial Completion of the WWTP ICIs, the Company shall conduct ICI Start-Up Tests and ICI Acceptance Test(s). The Company may perform ICI Start-Up Tests of a subsystem after related requirements of this section have been satisfied for such subsystem.
- B. The Company will develop an ICI Start-Up Plan and schedule of test procedures, and will bear the cost of start-up materials, including electrical power and water, and will start up equipment and systems using wastewater and products and materials for which the equipment was intended or other media which the facilities have been designed to process. The ICI Start-Up Plan shall be submitted at least sixty (60) days prior to ICI Start-Up. The ICI Start-Up Plan shall be approved by the Borough and, as appropriate, by the DEP and EPA.
- C. The ICI Start-up Plan shall include the following information:
- **Name of Equipment/System**
The function and name of equipment item and/or the name of the system including its scope.
 - **Scheduled ICI Start-Up Date**
The scheduled ICI Start-Up date will be included, and as the scheduled date draws closer the specific start time will be identified. Pre-start activities and schedule shall also be included.
 - **Related Systems**
The start-up of most subsystems will frequently involve the needed coordination with ancillary or support systems. These systems shall be identified, along with the component required to be integrated for the start-up.

- **Start-Up Tasks and Responsibilities, Staffing Requirements, Support**
The specific tasks or activities, both non-process and process related, which are required for the successful completion of the start-up of the equipment or system shall be presented, including those which may precede or follow the start-up. The individual responsible for each of the tasks will be identified along with support requirements. Construction trades needed for the start-up shall also be identified.
- **Schedule/Timeline of Specific Events**
The specific schedule for the start-up will be presented, identifying each of the tasks and describing the integration of the tasks and required personnel.
- **Manufacturer's Start-Up Recommendations**
Attach copies of each equipment supplier's specific start-up instructions and procedures supplemented with the manufacturer's operation and maintenance instructions and any supplemental information from the factory representative.
- **Factory Representative**
Each equipment supplier shall provide the services of a factory representative as required by the Service Contract. The factory representative shall identify the items that must be in place prior to initiating the start-up of the equipment. In addition, the representative must establish the schedule and indicate any needs while on site.
- **Equipment/System Training**
Specific training to be provided by equipment and systems suppliers is to be provided in accordance with the Service Contract.
- **Supplies and Materials Needed**
A list of all supplies and materials required for the start-up process shall be identified and presented. The list shall include Consumables, products, special tools and other items required during the start-up process.
- **Safety Requirements**
Identify any special or extraordinary safety considerations which need to be implemented for the start-up. Specific precautions shall be identified, and required tools or equipment shall be indicated.

- Permits
The need and type of Governmental Approvals shall be identified.
 - Spare Parts and Lubrication
Spare parts required by the specification or specifically needed for the start-up shall be identified.
 - Warranty
Equipment, machinery and material warranties shall be identified. Confirmation that required warranties have been received for the equipment and machinery to be started-up shall be made. Specific actions, if any, which may void warranties, shall be identified.
- D. The Company shall conduct ICI Start-Up Tests in accordance with the approved ICI Start-Up Plan, including operation of the Plant, equipment and subsystems relating to the ICI over the full range for which they were designed.
- E. The Company shall give the Borough ten (10) days prior written notice of the expected date of ICI Start-Up and ICI Start-Up Tests.
- F. Within thirty (30) days following completion of the ICI Start-Up Test, the Company shall prepare a report describing and documenting the start-up process (Start-Up Test Report). The Start-Up Test Report shall include copies of original data sheets, log sheets, calculations and test sheets. The Company shall certify that the operation of the facilities and systems has been performed over the full design range. The Company shall be responsible for making any changes required to meet the ICI Design and Construction Requirements.
- G. The Borough will have thirty (30) days to review and approve or reject the Start-Up Test Report. Borough approval of the Start-Up Test Report shall not be construed as Borough Acceptance of the ICIs or any component thereof.

3.0 ICI START-UP TESTING REQUIREMENTS

In the initial phase, ICI Start-Up Testing of equipment and subsystems will be completed to demonstrate that each ICI is installed correctly, functions as intended and meets the applicable conditions specified. ICI Start-Up Testing will occur once the equipment or subsystems have been installed and are mechanically and electrically complete. The ICI Start-Up Testing will include, as applicable:

1. Run tests to check motor vibration, temperature, and noise.
2. Functional test of controls and instruments, including the interface with the SCADA system.

3. For pumps and blowers – measurement of flow vs. head at three points on the pump curve.
4. For chemical feed equipment, ability to deliver specified dosages.
5. Additional equipment-specific tests in accordance with the Contract Standards.

For any new mechanical equipment installed, the Company shall perform a complete checkout of the new equipment prior to ICI Start-Up. This shall include all appropriate inspections and tests such as unencumbered safe operation, checking rotating equipment, testing of pumps, and testing for proper operation of controls and interlocks. In accordance with manufacturer's recommendations and all applicable codes and standards, all mechanical systems shall be checked as well for vibration, noise, clearances, tightness, and proper lubrication.

4.0 ICI ACCEPTANCE TEST PROCEDURES

The Company shall prepare an ICI Acceptance Test Plan and conduct an ICI Acceptance Test. The purpose of the ICI Acceptance Test is to demonstrate that the completed ICIs, as integrated with the remaining components of the WWTP, Incineration Facilities and Collection System, function as intended and meet performance requirements. The ICI Acceptance Test is to be conducted over the full design range of the WWTP to the extent practicable. The Company shall coordinate with the Borough for purposes of timing of the ICI Acceptance Test on an integrated basis as required hereunder.

No temporary equipment will be allowed to operate during the ICI Acceptance Test. The ICI Acceptance Test shall be repeated in its entirety at the Company's expense if:

- There are any violations of Governmental Approvals;
- The Company is forced to use temporary equipment to maintain operation;
- Any of the components that comprise the ICIs fail to operate as designed or fail to meet Performance Guarantees during the ICI Acceptance Test period; or
- During the ICI Acceptance Test period, if the Sewer Influent exceeds the maximum allowable Sewer Influent flow and loadings described in Appendix 3, the ICI Acceptance Test will be repeated. Such an event shall be treated as an Uncontrollable Circumstance.

The Borough, in its sole discretion, may waive any of these requirements.

ICI Acceptance Test Procedures and Standards shall include:

- A. The Company shall prepare and submit an ICI Acceptance Test Plan, which shall conform to the requirements of this Appendix 7. The ICI Acceptance

Test Plan shall describe the schedule for testing, fully define the test program detailing all procedures to be used, and define how the integrated ICIs will be operated during the test. The Company shall obtain Borough approval of the ICI Acceptance Test Plan and DEP/EPA approval as required. A draft ICI Acceptance Test Plan shall be submitted to the Borough for approval at least ninety (90) days prior to the ICI Acceptance Test. A final ICI Acceptance Test Plan shall be submitted to the Borough at least thirty (30) days prior to the scheduled date for the initiation of the ICI Acceptance Test.

- B. The Company shall provide the Borough with at least thirty (30) days prior written notice of the expected initiation of the ICI Acceptance Test. At least ten (10) days prior to the actual commencement of ICI Acceptance Testing, the Company shall certify in writing that it is ready to begin ICI Acceptance Testing.
- C. The Company shall conduct the ICI Acceptance Test in accordance with the requirements of the approved ICI Acceptance Test Plan. The purpose of the ICI Acceptance Test is to demonstrate that the ICI functions as intended, and that it meets the ICI Design and Construction Requirements as defined by the Service Contract. Performance is to be demonstrated to the extent practicable over the full design range of the ICIs equipment and subsystems.
- D. Within thirty (30) days of the completion of any required ICI Acceptance Test, the Company shall furnish the Borough with an ICI Acceptance Test Report as described in Section 10.6 of the Service Contract. The report shall include copies of original data sheets, log sheets, calculations and test reports. The Company shall certify that the ICI operated in accordance with the ICI Acceptance Test Plan and the applicable ICI Acceptance Test Procedures and Standards.
- E. In accordance with Section 10.7 of the Service Contract, the Borough shall have thirty (30) days from receipt of the ICI Acceptance Test Report to review and accept the report or require that the Company re-test the ICI or parts thereof. The Borough shall set forth the basis of its rejection and requirement for re-testing. The Company shall make all repairs, replacements and modifications necessary to pass the ICI Acceptance Test.
- F. ICI Acceptance shall not be deemed to have occurred until all conditions set forth in Section 10.5 of the Service Contract have been satisfied.

5.0 ICI ACCEPTANCE TEST REQUIREMENTS

The ICI Acceptance Test for each ICI may be carried out as an integrated acceptance test for all ICIs. At a minimum, the ICI Acceptable Test must be carried out as an integrated acceptance test with the exception of WWTP general upgrades and nitrogen removal upgrades as further described in Section 5.2 of this Appendix 7. Any ICIs tested as part of a full system ICI Acceptance Test, will be judged by the standard that the failure of a single ICI component will result in a failed ICI Acceptance Test for all ICIs included in the test. The Borough, in its sole discretion, may waive any requirements of the ICI Acceptance Test Procedures and Standards.

5.1 SCADA System Functional Test

A 30-day continuous demonstration test will be conducted to demonstrate proper operation of the SCADA system. This shall include full operation of the SCADA system for the WWTP, improved Incineration Facilities and Collection System SCADA components. The SCADA System Functional Test will be performed in conjunction with all other ICI Acceptance Tests as a fully integrated system. All controls and functions will be demonstrated during the test.

5.2 NPDES Permit Compliance and Nitrogen Removal Test

The NPDES Permit Compliance and Nitrogen Removal Test shall be performed for a 30-day period to demonstrate that the WWTP can meet the NPDES Permit effluent discharge limits and the nitrogen removal requirements specified in the Service Contract. The NPDES Permit Compliance and Nitrogen Removal Test may be carried out in conjunction with the other ICI Acceptance Tests, including those of the Incineration Facilities, as a fully integrated system but do not necessarily have to be tested as such. The 30-day NPDES Permit Compliance and Nitrogen Removal Test shall be initiated between the dates July 1 and September 30. In no case shall this test be performed between October 31 and June 30. For the purpose of meeting this test window, the NPDES Permit Compliance and Nitrogen Removal Test may be run as a stand alone test so long as all components, subsystems and equipment are installed and fully complete. To the extent flow varies during the ICI Acceptance Test, the WWTP shall be demonstrated to meet NPDES Permit discharge limits and nitrogen removal limits at these flow conditions. For the purpose of ICI Acceptance Testing for nitrogen removal, the standard for acceptable performance shall be the removal of total nitrogen from the Plant Effluent to a level of 5 mg/l on a 30-day average throughout the ICI Acceptance Test. The failure to achieve this average discharge limit will denote a failed ICI Acceptance Test.

If it becomes necessary to confirm that the nitrogen system is operational between the period of Substantial Completion and the date of the next ICI Acceptance Test window for the purposes of conducting ICI Acceptance Testing for other ICIs associated with the WWTP or Incineration Facilities, the Company may perform a post-substantial

completion/pre-acceptance test which will consist of meeting all parameters of the above described ICI Acceptance Test for the nitrogen removal system with the exception that the post-substantial completion/pre-acceptance test does not have to be carried out during the ICI Acceptance Test window. This includes the standard for acceptable performance for the removal of total nitrogen from the Plant Effluent to a level of 5 mg/l on a 30-day average throughout the post-substantial completion/pre-acceptance test. The failure to achieve this average discharge limit will denote a failed post-substantial completion/pre-acceptance test. The post-substantial completion/pre-acceptance test does not satisfy the requirement to conduct the NPDES Permit Compliance and Nitrogen Removal Test.

5.3 Equipment or Subsystem Performance Tests

Equipment and subsystems will be subjected to performance tests as part of the fully integrated ICI Acceptance Test to demonstrate that when the ICIs are completed, they can perform in accordance with the Service Contract requirements.

5.4 Ambient Noise Test

Ambient noise measurements will be made on a weekly basis during the 30-day ICI Acceptance Test to verify that the improved WWTP does not increase background noise levels above any State and local noise limits. Prior to the start of ICI construction, background noise measurements at the WWTP boundary and nearest residence and other sensitive receptors will be performed. During the ICI Acceptance Test, the noise measurements will be repeated at those same locations. Noise measurements shall only be performed during full operation of the Plant and all ICIs, and during the full operation of the improved Incineration Facilities.

5.5 Ambient Odor Test

Odor measurements and air quality modeling will be performed to demonstrate that odors emitted do not violate Applicable Law. The Ambient Odor Test will be carried out coincident with the integrated 30-day ICI Acceptance Test for all ICIs and with operation of the improved Incineration Facilities. Any off-site objectionable odors recorded at any time during the 30-day integrated full system ICI Acceptance Test or on-site odors judged through air quality modeling to have the potential for off-site, objectionable impacts shall constitute a failed test. See Appendix 16 for further description of the ICI Acceptance Test requirements for the odor test.

5.6 Simulated Power Outage Test

A simulated power outage test will be conducted to demonstrate proper switch over to standby power and full restart for all WWTP components to pre-power loss conditions. The Simulated Power Outage Test shall be run as part of the integrated full system ICI

Acceptance Test to the extent that the ICIs are connected to the emergency backup power system.

APPENDIX 8
CONSTRUCTION GOVERNMENTAL APPROVALS

APPENDIX 8

CONSTRUCTION GOVERNMENTAL APPROVALS

The Company shall prepare applications for, obtain and maintain all Governmental Approvals required under Applicable Law for the ICI Design/Build Work in accordance with Section 9.3 of the Service Contract. The Company shall bear all costs for such Governmental Approvals, including costs of application, issuance, maintenance and renewal except for Borough-issued permits, whose fees will be waived. Governmental Approvals shall be of the types required by local, State or federal regulatory agencies for the Managed Assets and Collection System and may include, but shall not be limited to, the following:

1. FEMA Flood Certificate;
2. Army Corp of Engineers Permits (if required);
3. DEP Permits;
4. DEP Order of Approval;
5. Borough Building Permits (Mechanical, Electrical & Structural) and any Zoning Approvals; and
6. State Fire Marshall New Construction Permit.

APPENDIX 9

**OPERATING GOVERNMENTAL APPROVALS
(Including Excluded Conditions, Pending Legal Proceedings and
Claims, and Required Approvals)**

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APPENDIX 9

OPERATING GOVERNMENTAL APPROVALS (Including Excluded Conditions, Pending Legal Proceedings and Claims, and Required Approvals)

1.0 COMPANY RESPONSIBILITIES

The Company shall be responsible for renewing and/or obtaining and maintaining all applicable federal, State and local approvals, licenses, permits, and certifications required for performing the Service Contract in accordance with the terms and provisions of the Service Contract. Such permits, licenses and certifications shall continue to be in the name of the Borough, as applicable. The Company shall modify all permits, as necessary, to include the Company as operator and the Borough as permittee.

The Company shall prepare all reports and applications necessary to obtain and maintain all Governmental Approvals required under Applicable Law for the operation of the Managed Assets. The Company shall bear all costs for such Governmental Approvals, including costs of application, issuance, maintenance and renewal.

The Company shall comply with all Applicable Law pertaining to the Managed Assets and shall comply with all Governmental Approvals governing the performance of the Service Contract hereunder issued for or with respect to the Managed Assets. In the event that during the Term of the Service Contract, any of the existing Governmental Approvals must be renewed, or additional permits required, the Company shall be responsible for maintaining such renewal or obtaining such additional permit. All permit renewals including the NPDES Permit, shall be in the name of the Borough as the permittee with the Company as co-permittee, if required.

Governmental Approvals include, but are not limited to, the following:

1. NPDES Permit (as co-permittee with the Borough, if required);
2. Stipulated Judgment (Conditions 1, 2, 3 and 5);
3. Clean Water Act Part 503 Permit (as co-permittee with the Borough, if required by DEP);
4. DEP executed consent agreements;
5. DEP wastewater operator certifications;
6. DEP Operation and Maintenance Manual approval;
7. DEP Staffing Plan approval;
8. DEP required laboratory certificate;
9. Air emission permit, if required for ICIs for Odor Control or implementation of Odor Control Plan;

10. Electricians licenses, if required;
11. Pressure vessel certificates, if required;
12. Elevator certificate;
13. Compressed gas cylinder certificates, if required;
14. Fire alarm system certificate of operability;
15. DMV vehicle operators licenses;
16. DMV commercial drivers licenses;
17. Emergency generator permit;
18. FCC radio license;
19. Title V Permit; and
20. Any other state air permits associated with the operation of the Managed Assets.

2.0 BOROUGH RESPONSIBILITIES

The Borough shall support the Company in its efforts to obtain, renew, and maintain permits and will support the Company in its efforts to mitigate the impact of any Change in Law.

3.0 EXCLUDED CONDITIONS

The Borough shall be responsible for complying with certain terms and conditions of the NPDES Permit and other Governmental Approvals (the "Excluded Conditions") as follows:

3.1 NPDES Permit - Zinc Requirements

- 3.1.1 Company Obligations. Prior to such time as the DEP has established revised zinc limits under the NPDES Permit following completion of the studies required by Section 9(B) of the NPDES Permit and the Borough and the Company have implemented any agreed-upon actions necessary for the Plant to achieve such final zinc limits and except to the extent relieved as provided in Section 6.5 of the Service Contract or other Uncontrollable Circumstances, the Company shall operate the Plant in accordance with Prudent Industry Practice with the objective of meeting the zinc limits in the NPDES Permit to the extent reasonably practicable, but the Company shall not otherwise be responsible for achieving the zinc limits in the NPDES Permit. The relief provided in the preceding sentence shall not relieve the Company from its obligations to otherwise comply with Applicable Law (other than the zinc limits in the NPDES Permit) in operating the Managed Assets as and to the extent provided in Section 6.2 and 6.3 of the Service Contract. For these purposes, Prudent Industry Practice shall include the Company's making reasonable changes in operating, maintenance, repair, replacement and management practices at the Managed Assets so as to mitigate the occurrence of any zinc violations under the

NPDES Permit. In addition, the Company shall monitor the System Influent for zinc as required by Section 9(C) of the NPDES Permit. Notwithstanding anything herein to the contrary, if it is mutually determined by the parties after completion of the actions required under Section 9(A)(1) and 9(A)(2) of the NPDES Permit that the Plant can meet the zinc limits "as is", then the Company shall be responsible for complying with its obligations under Section 6.2 and with all other obligations under the Service Contract and the Borough's obligations under Section 3.1.2 hereof shall terminate.

- 3.1.2 Borough Responsibilities. Until such time as the DEP has established revised zinc limits for the NPDES Permit following the completion of the studies required by Section 9(B) of the NPDES Permit and the Borough and the Company have implemented any agreed-upon actions necessary for the Plant to achieve such revised zinc limits, the Borough shall retain the responsibility for (1) all obligations specified in Section 5.11(D) of the Service Contract with respect to any failure of the Company to comply with the zinc limits in the NPDES Permit, and (2) the requirements of Sections 9(A) and 9(B) of the NPDES Permit. The Company, however, shall be responsible for the obligations in item (1) above which result from the Company's failure to comply with Prudent Industry Practice in operating the Plant.
- 3.1.3 Cooperation in Zinc Studies. The Borough and the Company shall cooperate with each other in the implementation of the actions required by Sections 9(A)(1) and (A)(2) of the NPDES Permit. In implementing these actions, the Borough and the Company agree to identify the most cost-effective alternative actions that may be required of the parties under the NPDES Permit to reduce zinc loadings to the Plant including the actions referred to in Section 3.1.1 hereof. In identifying the most cost-effective alternative actions, the parties will consider (1) the total capital costs of any capital improvements, (2) the present discounted value of any increased operation, maintenance and repair costs, and (3) the impact of the proposed actions on the ability of the Managed Assets and Incineration Facilities to provide services and generate revenues. In addition to the foregoing, if the analyses undertaken by the parties pursuant to Section 9(A)(1) of the NPDES Permit, as well as the Borough funded studies carried out by the USGS (as required by Section 9(B) of the NPDES Permit) result in more favorable zinc limits than those set forth in the current NPDES Permit, the parties further agree to petition the DEP to re-evaluate and re-establish the zinc limits thereunder.
- 3.1.4 Implementation of Remedial Actions. If, upon completion of the engineering report pursuant to Section 9(A)(2) of the NPDES Permit or upon establishment of revised zinc limits under the NPDES Permit by the DEP following completion of the studies required by Section 9(B) of the NPDES Permit, any remedial action is required to be taken at the Plant in order to attain and maintain compliance with such revised zinc limits, the parties shall promptly arrange to meet and negotiate in good faith to reach mutual agreement regarding the scope, cost, benefit or cost sharing and other

particulars relating to the actions necessary to bring the Plant and the Incineration Facilities into compliance with such engineering report and such revised zinc limits. The parties recognize that the remedial actions to be implemented following the submittal of the engineering report or the establishment of the revised zinc limits may consist of a combination of operational and capital-related changes at the Plant as well as the implementation of operational or capital-related changes at the Incineration Facilities.

- 3.1.5 Costs of Remedial Actions. Unless otherwise agreed to by the parties, the Borough shall be responsible for all operating and capital costs (subject to Cost Substantiation) required to implement any remedial actions required under Section 3.1.4.
- 3.1.6 Establishment of Revised Zinc Limits. Subject to the last sentence of Section 3.1.1 hereof, once the DEP has established the revised zinc limits for the NPDES Permit following completion of the studies required by Section 9(B) of the NPDES Permit and the Borough and the Company have implemented any agreed-upon actions necessary for the Plant to achieve such revised zinc limits, the revised zinc limits under the NPDES Permit shall constitute Applicable Law as defined in the Service Contract and the Company will be responsible for complying with all its obligations under the Service Contract with respect thereto, including the obligations of Sections 5.11(D) and 6.2 of the Service Contract. At such time, the Borough's obligations with respect to this Excluded Condition shall terminate.

3.2 TMDL Requirements for Total Nitrogen

Except as stated in the next sentence, the Borough shall be responsible for compliance with any TMDL requirements with respect to total nitrogen that are imposed by a Governmental Body prior to the earlier of the ICI Acceptance of the nitrogen removal improvements or the Scheduled ICI Acceptance Date for the nitrogen removal improvements. If TMDL requirements for total nitrogen have been imposed prior to such time, the Company shall, except to the extent relieved as provided in Section 6.5 of the Service Contract or other Uncontrollable Circumstances, operate the Managed Assets (recognizing the limitations of their existing design) in accordance with Prudent Industry Practice with the objective of meeting such TMDL requirements to the extent reasonably practicable, but the Company shall not be responsible for achieving the TMDL limits. The relief provided in the preceding sentence shall not relieve the Company from its obligations to otherwise comply with Applicable Law (other than the TMDL limits) in operating the Managed Assets as and to the extent provided in Sections 6.2 and 6.3 of the Service Contract.

3.3 Industrial Pretreatment Program

As provided in Section 5.19 of the Service Contract, if the State withdraws from administration and enforcement of the IPP and another State or federal entity has not

assumed such responsibility therefor, the Borough shall be responsible for adopting, administering and enforcing an industrial pretreatment program meeting all of the requirements of Applicable Law, including the requirements set forth in 40 CFR §§ 403.8-403.9.

3.4 Collection System Requirements

Except those specific obligations to be performed by the Company pursuant to Section 7.2 of the Service Contract, the Borough shall retain responsibility for compliance with all requirements of Governmental Approvals and Applicable Law with respect to the Collection System.

4.0 PENDING LEGAL PROCEEDINGS AND CLAIMS

4.1 Legal Proceedings

The Legal Proceedings referred to in Section 2.1(E) of the Service Contract for disclosure by the Borough are as follows:

1. Jones, et al. v. Borough of Naugatuck, No. CV-98-0146754-S. This proceeding, which is defined in the Service Contract as the "Odor Litigation", relates to certain alleged odor violations at the Plant and the Incineration Facilities prior to April 16, 2001.

4.2 Claims and Demands

The Borough is currently subject to several pending claims brought by Borough residents with respect to property damage caused by back-ups in the Collection System.

5.0 REQUIRED APPROVALS OF BOROUGH

The approvals, authorizations, orders or consents referred to in Section 2.1(D) of the Service Contract for disclosure by the Borough, which are necessary for the valid execution and delivery by the Borough of the Service Contract or for the performance by the Borough of its payment obligations under the Service Contract, are as follows:

1. Privatization Management Approvals.
2. Except for the approvals identified in item (1) hereof and those Governmental Approvals for which the Company is responsible under Section 4.1 of the Service Contract which may be required by the third-party lender, the following specific Borough approvals, appropriations and resolutions are required under Applicable Law for the lease-purchase of the Initial Capital Improvements and funding of the Fixed Design/Build Price (the following are only descriptions of such approvals, appropriations and resolutions):

- (i) Resolution of Board of Mayor and Burgesses waiving bidding requirements of Borough's Charter for the lease-purchase of the Initial Capital Improvements.
- (ii) Resolution of the Board of Mayor and Burgesses recommending the appropriation for the Initial Capital Improvements to be financed with the lease-purchase agreement and the appropriation of the rental payments required under the lease-purchase agreement for the then-current Borough fiscal year; approving the execution of the lease-purchase agreement and any related schedules to such agreement; and declaring the intention of the Borough to issue a reimbursement obligation.
- (iii) Resolution of the Board of Finance approving the appropriation for the Initial Capital Improvements to be financed with the lease-purchase agreement and the appropriation of the rental payments required under the lease-purchase agreement for the then-current Borough fiscal year, and recommending the Board of Mayor and Burgesses and the Board of Finance sitting jointly (collectively, the "Joint Board") to approve the appropriations.
- (iv) Resolution of Joint Board approving the appropriation for the Initial Capital Improvements to be financed with the lease-purchase agreement and the appropriation of the rental payments required under the lease-purchase agreement for the then-current Borough fiscal year.

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INSURANCE REQUIREMENTS

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APPENDIX 10

INSURANCE REQUIREMENTS

1.0 REQUIRED MANAGEMENT PERIOD INSURANCE

1.1 Minimum Insurance Coverage

As required by Section 14.1 of the Service Contract and in accordance with this Appendix 10, the Company shall obtain and maintain the insurance coverage listed below with respect to the Management Services for the Managed Assets, and, as necessary, the performance of its Collection System obligations under Section 7.2 of the Service Contract:

- (a) Workers' compensation insurance required by Applicable Law covering all of the employees, Subcontractors and designees of the Company.
- (b) Employer's liability insurance with a combined single limit of \$1,000,000.
- (c) Commercial general liability insurance (including coverages provided under excess umbrella liability insurance) with a per project or location aggregate endorsement including contractual liability and products completed operations coverage, with a combined single limit of liability of \$1,000,000 per occurrence for bodily injury and for property damage, a general aggregate limit of \$10,000,000, an aggregate limit of \$10,000,000 for products and completed operations, a limit of \$10,000,000 for personal injury and advertising injury, \$300,000 for fire damage legal liability and a \$5,000 medical expense for any one person.
- (d) Commercial automobile liability insurance, including owned, non-owned and leased or hired vehicles with a \$1,000,000 combined single limit for bodily injury and property damage, including non-owned or hired coverage and a pollution liability endorsement as to owned vehicles.
- (e) Excess umbrella liability insurance above the required commercial general liability insurance, with a per project or location aggregate endorsement, to result in an overall liability coverage in the amount of \$10,000,000 per occurrence of bodily damage and for property

damage and an aggregate limit of \$25,000,000; and excess umbrella liability insurance above the required commercial automobile and employer's liability insurance, with a per project or location aggregate endorsement, to result in an overall liability coverage in the amount of \$10,000,000 per occurrence and an annual aggregate limit of \$10,000,000.

- (f) Contractors pollution liability insurance with limits of \$10,000,000 per incident and an annual aggregate limit of \$25,000,000 and a per project or location aggregate endorsement.
- (g) Railroad protective liability as required by Metro-North Railroad (which coverage may be a part of the commercial general liability insurance).

Every five years the parties shall review the coverage limits provided in this Section 1.1 and adjust such limits based on the CPI over the prior five-year period. Such adjustments shall be rounded to the nearest \$10,000. The annual premium by the Company for the contractors pollution liability insurance coverage with per project or location aggregate endorsement referenced in paragraph (f) of this Section 1.1 shall be reimbursed by the Borough (without markup for profit, administration or otherwise) pursuant to Section 14.1(B) of the Service Contract.

1.2 Additional Insureds

The Company and its Subcontractors shall name the Borough of Naugatuck, the WPCA, including the Board of Mayor and Burgesses, and their officers, officials, agents, volunteers and employees as additional insureds (the "Additional Insureds") on all insurance policies required pursuant to Section 1.1 of this Appendix (other than the workers' compensation and employers liability policies referenced in paragraphs (a) and (b) of Section 1.1 hereof).

1.3 Waiver of Subrogation

Each party to the Service Contract shall waive the subrogation rights of its various insurance carriers in favor of the other party, except for intentional acts or acts of gross negligence.

1.4 Company Insurance

The Company shall maintain and insure its own personal property, equipment and supplies used in the performance of the Management Services and its Collection System obligations under Section 7.2 of the Service Contract with sufficient

replacement cost limits to avoid coinsurance penalties. The Company shall also be responsible for insuring against their own loss of business income and extra expense associated with acts of God or other insurable perils.

1.5 Insurance Certificates

The Required Management Period Insurance, and any renewals thereof, shall be evidenced by certificates of insurance issued or countersigned by a duly authorized representative of the issuer and delivered to the Borough for its review and approval not later than 30 days prior to the Commencement Date or, in the case of a renewal, within a reasonable time after provision thereof by the insurer. The certificates of insurance shall require 30 days' written notice to the Borough of cancellation (except with respect to cancellation for non-payment of premiums to which a 10-day written notice shall be required), intent not to renew, or, to the extent that it would affect the Borough or its rights or obligations under such policy or the Service Contract, any material reduction in its coverage by the insurance company.

1.6 Non-Recourse Provision

All insurance policies shall provide that the insurers shall have no recourse against the Additional Insureds for payment of any premium or assessment and shall contain a severability of interest provision in regard to mutual coverage liability policies. The coverages provided by mutual coverage liability insurance policies required hereunder shall be the primary source of any restitution or other recovery for any injuries to or death of persons or loss or damage to property incurred as a result of an action or inaction of the Company or its Subcontractors, or their respective suppliers, employees, agents, representatives, or invitees, that fall within these coverages and also within the coverages of any liability insurance or self-insurance or self-insurance program maintained by the Borough.

1.7 Deductibles

The following deductibles shall be applicable to the Required Management Period Insurance and shall be paid by the Company:

Commercial General Liability - \$250,000.

Automobile - \$250,000 per occurrence.

Umbrella - \$10,000 self insured retention, if not covered by the underlayer of insurance.

Contractors Pollution Liability - \$250,000 each incident.

Railroad - part of CGL (\$250,000).

Any changes to the foregoing deductibles shall be agreed upon by the Company and the Borough.

1.8 Subcontractors

The Company shall be responsible for ensuring that all Subcontractors which are working at the Managed Assets, the Collection System and the Collection System Sites, secure and maintain, in addition to those coverages set forth in Section 1.1, all insurance coverages (including workers' compensation insurance) and other financial sureties required by Applicable Law in connection with their presence and the performance of their duties at or concerning the Managed Assets and the Collection System.

1.9 Specific Provisions for Commercial General Liability Insurance

Commercial general liability insurance, as required under paragraph (c) of Section 1.1, shall include premises-operations, broad form contractual, blanket additional insured, products and completed operations, personal injury and advertising injury, explosion, collapse, underground hazards, broad form property damage including completed operations, fire damage legal and independent contractors coverages.

1.10 Specific Provisions for Workers' Compensation Coverage

Workers' compensation insurance shall be in accordance with the requirements of Applicable Law, as amended from time to time. The required workers' compensation insurance shall include other states' coverage, voluntary compensation coverage, and federal longshoreman and harborworkers coverage.

1.11 Specific Provisions for Contractors Pollution Liability Insurance

Coverage for pollution legal liability required by paragraph (f) of Section 1.1 shall include coverage for off-site third party bodily injury and property damage resulting from pollution conditions emanating from covered locations, off-site clean-up costs, on-site bodily injury, property damage and pollution clean-up costs, and owner's spill liability for third party claims; defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims; and losses that arise from the Managed Assets. The contractors pollution liability insurance may contain exclusions for Pre-Existing Environmental Conditions and Collection System Environmental Conditions.

1.12 Changes in Insurance Coverage

The Company shall use its best efforts to obtain such additional insurance as the Borough may request from time to time, and the costs of such additional insurance shall be a pass-through cost to the Borough.

1.13 Qualifications of Insurers

The Company is required to obtain the insurance set forth herein with insurance companies that carry an A.M. Best Company's "A-VIII" or equivalent rating. In addition, insurance must be obtained or maintained with insurers that are authorized to do business in the State of Connecticut.

2.0 REQUIRED ICI DESIGN/BUILD PERIOD INSURANCE

2.1 Minimum Insurance Coverage

The Company shall obtain and maintain the insurance coverage listed below with respect to the ICI Design/Build Work, the design and construction of the Collection System Improvements, and from time to time, the design and construction of any Capital Modifications without any reimbursement obligation on the part of the Borough:

- (a) Each of the insurance coverages listed in Section 1.1 hereof, subject to the same terms and conditions as stated in Section 1.1 hereof.
- (b) "Builder's risk" insurance covering loss, damage or destruction to the Initial Capital Improvements, the Collection System Improvements and any Capital Modifications (including boiler and machinery coverage) caused by physical damage in an amount equal to the full replacement value of the Initial Capital Improvements, the Collection System Improvements or any such Capital Modification.

2.2 Additional Insureds

The Company and its Subcontractors shall name the Borough of Naugatuck, the WPCA, including the Board of Mayor and Burgesses, and their officers, elected officials, agents, volunteers and employees as additional insureds during the Advancement Work Period, the ICI Design/Build Period or any period during which a Capital Modification is being constructed (the "Additional Insureds") on all policies required under this Section 2.1 of this Appendix (other than the workers' compensation and employers liability policies referenced by incorporation in paragraph (a) of Section 2.1 hereof).

2.3 Waiver of Subrogation

Each party to the Service Contract shall waive the subrogation rights of its various insurance carriers in favor of the other party, except for intentional acts or acts of gross negligence.

2.4 Company Insurance

The Company shall maintain and insure its own personal property, equipment and supplies used in the ICI Design/Build Work, the design and construction of the Collection System Improvements or the design and construction of any Capital Modifications with sufficient replacement cost limits to avoid coinsurance penalties. The Company shall also be responsible for insuring against their own loss of business income and extra expense associated with acts of God or other insurable perils.

2.5 Insurance Certificates

The Required ICI Design/Build Period Insurance, and any renewals thereof, shall be evidenced by certificates of insurance issued or countersigned by a duly authorized representative of the issuer and delivered to the Borough for its review and approval 30 days prior to (1) the Advancement Work Commencement Date or the Commencement Date, whichever occurs first, or (2) in the case of a renewal, within a reasonable time after provision thereof by the insurer. In the case of a Capital Modification, the certificates referenced in the preceding sentence shall be delivered to the Borough for its review and approval 10 days prior to the commencement of construction of such Capital Modification. The certificates of insurance shall require 30 days' written notice to the Borough of cancellation (except with respect to cancellation for non-payment of premiums to which a 10-day written notice shall be required), intent not to renew, or, to the extent that it would affect the Borough or its rights or obligations under such policy or the Service Contract, any material reduction in its coverage by the insurance company.

2.6 Non-Recourse Provision

All insurance policies shall provide that the insurers shall have no recourse against the Additional Insureds for payment of any premium or assessment and shall contain a severability of interest provision in regard to mutual coverage liability policies. The coverages provided by mutual coverage liability insurance policies required pursuant to the Service Contract shall be the primary source of any restitution or other recovery for any injuries to or death of persons or loss or damage to property incurred as a result of an action or inaction of the Company or its Subcontractors, or their respective suppliers, employees, agents representatives, or invitees, that fall within these coverages and also within the coverages of any liability insurance or self-insurance program maintained by the Borough.

2.7 Deductibles

All deductibles applicable to the Required ICI Design/Build Period Insurance coverage, to the extent not referenced in Section 1.7, shall be agreed upon by the Company and the Borough and shall be paid by the Company.

2.8 Subcontractors

The Company shall be responsible for ensuring that all Subcontractors which are working at the Managed Assets, the Collection System and the Collection System Sites, secure and maintain, in addition to those coverages set forth in Section 2.1, all insurance coverages (including workers' compensation insurance) and other financial sureties required by Applicable Law in connection with their presence and the performance of their duties at or concerning the Managed Assets and the Collection System.

2.9 Specific Provisions for "Builder's Risk" Insurance

The "Builder's Risk" insurance, as required under paragraph (b) in Section 2.1 above, shall provide that the proceeds shall be payable to the Borough (for disbursement to the Company as repairs and reconstruction proceed), without coinsurance and shall insure the interests of the Borough regardless of any breach or violation of warranties, declarations or conditions contained in any such policies, any action or inaction of the Company, the Borough or others, or any foreclosure relating to the Managed Assets and the Collection System or an change in ownership of all or any portion of the Managed Assets or the Collection System.

2.10 Qualifications of Insurers

The Company is required to obtain the insurance set forth herein with insurance companies that carry an A.M. Best Company's "A-VIII" or equivalent rating. In addition, insurance must be obtained or maintained with insurers that are authorized to do business in the State of Connecticut.

3.0 REQUIRED BOROUGH INSURANCE

3.1 Minimum Insurance Coverage

As required by Section 5.3(6) of the Service Contract and in accordance with this Appendix 10, the Borough shall obtain and maintain the insurance coverage listed below during the Term of the Service Contract:

- (a) Property insurance on the Managed Assets in the amount equal to the full replacement value of the Managed Assets, as such value shall be adjusted from time to time to account for the Initial Capital Improvements or any Capital Modification to the Managed Assets (subject to such reasonable deductible amounts as may be determined by the Borough or required by Applicable Law or lenders).
- (b) The insurance required by Sections 4.b and 4.c of the Discharge and Access Agreement.

3.2 Additional Insureds

The property damage insurance policy shall name the Borough and the Company as co-insureds for the benefit of both as each of their interests may appear, and shall name the Borough and the Company's Subcontractors, the WPCA, the Board of Mayor and Burgesses, and their officers, officials, agents, volunteers and employees as additional insureds (the "Additional Insureds") on all insurance policies required pursuant to Section 3.1 of this Appendix.

3.3 Waiver of Subrogation

Each party to the Service Contract shall waive its subrogation rights of the insurance carrier in favor of the other party as to any losses which are covered and collectable under the insurance.

3.4 Specific Provisions for Property Damage Insurance

Coverage for property damage insurance required by paragraph (a) of Section 3.1 shall be written on a standard "all risk" form, including coverage for flood, earth movement, mechanical breakdown and electrical injury, and fire resulting from any cause (except war/nuclear perils), with no exclusions for peril of collapse.

3.5 Company-Requested Additional Coverage

If the Company requests in writing that other special insurance be included in the property insurance coverage required under Section 3.1, the Borough shall, if possible, include such insurance, and the cost thereof shall be charged to the Company and reconciled in the Annual Settlement process under the Service Contract.

APPENDIX 11

[INTENTIONALLY OMITTED]

APPENDIX 12
GENERAL STAFFING REQUIREMENTS

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Attachment 1 - Current Staffing Plan

APPENDIX 12

GENERAL STAFFING REQUIREMENTS

1.0 STAFFING PLAN

The Company is required to prepare a Staffing Plan consistent with this Appendix 12, and submit the plan to DEP for approval. Attachment 1 to this Appendix 12 sets forth the current staffing plan for the Plant. The Company shall at all times comply with the requirements of the approved Staffing Plan and shall, if necessary, amend or modify the Staffing Plan as required to maintain compliance with all applicable DEP requirements throughout the Term of the Service Contract.

2.0 STAFF SCHEDULE

The Company work schedule shall provide operations staff coverage at the Plant 24 hours per day, 7 days per week. A minimum of one operator shall be assigned to each operating shift.

3.0 EEO-MBE-WBE POLICY

The Company shall establish equal opportunity and affirmative action policies for all hiring and promoting of full-time and part-time personnel in a manner consistent with the Service Contract and Contract Standards.

4.0 EMPLOYEE ASSISTANCE PROGRAM

The Company shall sponsor an Employee Assistance Program (EAP) at its own expense. The EAP shall be designed to enhance the health and emotional well-being of all employees, providing confidential counseling and referral services to those who may be experiencing family, substance abuse, emotional, financial, legal, or other personal problems.

Counseling shall be conducted in strict confidence. No information shall be provided to anyone without written consent of the participating employee. Full-time employees shall be able to seek assistance voluntarily through self-referral or supervisor/manager referral. In the event of a positive drug screen or work-site behavior that directly violates the Company policy, an employee may be subjected to mandatory EAP referral. Employee family members who desire confidential assistance with personal problems shall also be allowed to use the EAP.

5.0 EDUCATION AND TRAINING PROGRAMS

A Company Training Coordinator shall monitor and implement training activities. The Training Coordinator shall be the Service Manager. The Company shall maintain a central training library that contains manuals, slide/tape programs, texts, videotapes, and transparencies to supplement the Plant's resources. The Company shall emphasize cross training to enhance employees' skills and range of capabilities, effectiveness in performing daily operations, and career advancement potential.

The Company shall develop an outline and materials for a Plant-wide training program that shall include topics such as safety, equipment operation, maintenance, and process control. The Company training program shall involve a combination of classroom and hands-on training, and shall cover a wide range of site-specific topics. Each operator shall receive at least 40 hours (cumulative) per year of on-site and off-site training.

Personnel from the Borough shall be invited to participate in any and all of the Company's training programs. The Company shall advise the Borough of any scheduled training sessions and arrange to have the same training materials available to Borough personnel.

Site-specific training shall be customized to blend theoretical application with hands-on, in-Plant experience. A needs assessment shall determine the skill level of the Plant staff. Based on the results of the assessment, the Company shall customize the training program to accommodate the complexity of the Plant and the personnel skill level. The Company's training program shall reflect years of hands-on operating experience in the following areas:

- Supervisory training
- Unit process training
- Process control and troubleshooting
- Maintenance procedures
- Equipment troubleshooting and repair
- Sampling and field-testing techniques
- Laboratory procedures
- Personal computer use
- Advanced maintenance training
- Sludge handling and disposal
- SCADA system operation

The Company shall provide financial incentives for personnel to advance their certification levels. Additionally, the Company shall maintain a tuition reimbursement program to help employees gain the education and training to advance their careers in the organization.

6.0 KEY DESIGN AND CONSTRUCTION PERSONNEL

The Company shall use the following key design and construction personnel in connection with the performance of the ICI Design/Build Work:

Jay Noroski, VP Municipal Projects
Art Tritsch, Project Engineer
Curt Fry, Electrical Engineer
Bill Rosenbaum, VP Municipal DB Process Developer
Lee Lundberg, Process Engineer
John Lynch, Instrumentation Engineer
Dan Stoup, In-house Construction Manager

The Company shall be permitted to utilize replacement personnel only as permitted pursuant to Section 9.11(D) of the Service Contract.

**ATTACHMENT 1
CURRENT STAFFING PLAN**

State of Connecticut
 Department of Environmental Protection
 Water Management Bureau

Chief, Shift and Process Control Operator Verification Form

Please complete one copy of this form for each wastewater treatment facility in your municipality.

FACILITY INFORMATION	Facility Name	1 st Shift	2 nd Shift	3 rd Shift	Other
	Municipality				
	Supervisory Personnel at Facility	4			
	Operations Personnel at Facility	5	4	4	
	Maintenance Personnel at Facility	3			
	Administrative and Clerical Personnel at Facility	1			
	Total Personnel on Shift	13	4	4	
CHIEF OPERATOR	Name	Certification	Certificate No:		
	Date Appointed Chief Operator	II III IIIIG IV IVG	1410		
	Notes or Comments				
SHIFT OPERATOR	Name	Certification	Certificate No:		
	Date Appointed Shift Operator: Pending	II III IIIIG IV IVG	0480		
	Does this operator have the authority to make process control changes?	What Shift? 1 st	Yes		
	How many people does this operator supervise?	3			
	What are the operator's responsibilities on this shift?				
SHIFT OPERATOR	Name	Certification	Certificate No:		
	Date Appointed Shift Operator: Pending	II III IIIIG IV IVG			
	Does this operator have the authority to make process control changes?	What Shift? 2 nd	Yes		
	How many people does this operator supervise?	3			
	What are the operator's responsibilities on this shift?				
SHIFT OPERATOR	Name	Certification	Certificate No:		
	Date Appointed Shift Operator: Pending	II III IIIIG IV IVG			
	Does this operator have the authority to make process control changes?	What Shift? 3 rd	Yes		
	How many people does this operator supervise?	3			
	What are the operator's responsibilities on this shift?				
PROCESS CONTROL OPERATOR	Name	Certification	Certificate No:		
	Date Appointed Process Control Operator:	II III IIIIG IV IVG	1410		
	Does this operator have the authority to make process control changes?	What Shift? 1 st	Yes		
	How many people does this operator supervise?				
	What are the operator's responsibilities on this shift?				

I hereby certify that the information supplied above contains no willful misrepresentations or falsifications, and that the information is true and complete to the best of my knowledge and belief.

Signed [Signature] 3/26/01 Signed [Signature] 3/30/01
 Chief Operator Date Chief Elected Municipal Official Date

APPENDIX 13
TRANSITION PLAN

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APPENDIX 13

TRANSITION PLAN

1.0 GENERAL TRANSITION SERVICES

The Company shall provide all services necessary for a smooth, uninterrupted transition of Plant operations and management from the current operator including satisfying all responsibilities set forth in Section 4.1 of the Service Contract. In addition, as of the Commencement Date, the Company shall ensure that all obligations of the Interim Service Contract have been fulfilled.

2.0 CONTINUITY OF RECORDS

Historical records, including System Influent, Plant Effluent, Sludge quantities, maintenance and repair activities, capital improvements, and odor control shall be maintained.

Prior to the Commencement Date (and to the extent not otherwise completed under the Interim Service Contract), the Company shall evaluate the type of records available and the systems presently in use. The Company shall assess the record keeping systems in such areas as personnel, process control, maintenance management, inventory, and odor control. The Company shall prioritize the implementation of the computerized maintenance management and process control programs, and keep prior records on file. The Company shall go down the priority list of records that must be maintained and continue to use existing record keeping systems until each one is converted to its most effective format, whether it be electronic or hard copy.

Records shall be kept in both hard copy and electronic formats and backups shall be routinely made on a frequency that ensures that any data loss is limited to an inconvenience. Hard copy records, such as Discharge Monitoring Reports, client reports, safety reports, and related information, shall be kept at the Plant for Borough review during normal business hours.

3.0 EMERGENCY MANAGEMENT

During the Approval Period, the Company shall ensure that Emergency Preparedness Plans and emergency response telephone numbers for agencies and personnel are current, and that the Company's minimum safety equipment inventory is at the Plant Site.

4.0 MANAGED ASSETS INVENTORY

The Company shall conduct an inventory of the Managed Assets in accordance with Section 7.3 and Appendix 15 and 15A of the Service Contract, to characterize existing conditions and components. A Baseline Asset Evaluation Report, along with video documentation, shall be prepared by the Company and provided to the Borough, and shall be made part of the Service Contract.

The Company shall correct any deficiencies it identifies in its Managed Assets Inventory, restoring Consumables, spare parts, and supplies and materials to meet requirements of Applicable Law or standards of Prudent Industry Practice, whichever is greater.

All Consumables, expendable supplies, spare parts, and materials on hand on the date of the Managed Assets Inventory and as restored by the Company (as described in the preceding paragraph) shall be replaced by the Company at the expiration or earlier termination of the Service Contract.

Consumables referenced in this Section currently include fuel oil, caustic, soda ash, sodium hypochlorite, sodium bisulfite, sludge conditioning polymers, and kerosene.

5.0 SAFETY TRAINING

In accordance with Section 5.8 of the Service Contract, the Company shall implement a safety training program for all personnel. The Company shall continuously monitor the progress of the safety program to ensure the goals and objectives are clearly met.

In order to provide a smooth, uninterrupted transition of Plant operations and management from the current operator, the Company shall, to the extent not undertaken during the term of the Interim Service Contract, carry out the following training activities as part of the Transition Plan.

5.1 Initial Safety Training

Within the first week of the Commencement Date, the Company shall verify that all personnel have received appropriate safety training, and shall conduct any such training that is not verified as completed. At a minimum, the following shall be conducted or verified as completed:

- a. Employee Safety Orientation
 - Present and explain the Company Safety Mission Statement
 - Define specific program requirements
 - Describe program incentives and rewards
 - Implement START video training to help develop the safety mindset for supervisors and employees alike
 - Distribute resource materials for program training and support systems

b. Distribution of Safety Equipment to Employees

- Hard hats
- Safety glasses
- Protective clothing
- Protective gloves
- Steel-toed boots (as required)

c. Safety Committee Formation

The Company shall provide employees with a draft safety manual on the first day of the Approval Period. A staff member identified to serve as Safety Committee Chairperson shall be instructed in the manual's use. The Chairperson shall then organize a Safety Committee comprised of a cross section of staff. The committee shall develop policies that include standard operating procedures (SOPs), written programs, and training. The Regional Safety Coordinator shall also assist in providing example safety programs, training materials, and training programs. The Company shall perform the following tasks:

1. Facilitate staff training in Hazard Communication (Right to Know) and Control of Hazardous Energy (Lockout/Taggit).
2. Develop a monthly safety-training calendar to schedule training in OSHA-required topics and site-specific needs for an entire year.
3. Conduct an initial safety inspection, headed by the Company Regional Safety Coordinator and staff, to identify specific hazards. Create a schedule of corrective action with realistic timelines.

Other components of the safety program shall include:

- Repairing fences and installing tamper-resistant locks.
- Purchasing and installing appropriate warning signs to prevent trespassing, chemical hazards such as chlorine, and electrical voltage hazards.
- Providing signage that describes facility ownership and provides an emergency telephone number for neighbors to call to prevent environmental incidents from occurring due to malfunctioning equipment
- Obtaining Material Safety Data Sheets (MSDS) for chemicals stored at the Plant Site and creating binders for these documents to allow all employees easy access to this information

- Performing a Confined Space Entry Survey of all areas such as enclosed spaces, meter pits, and lift stations, and classifying these spaces as identified by OSHA regulations:
 - Permit required
 - Non-permit required
 - Alternate procedure
- Assessing personal protective equipment to determine appropriate equipment to be worn when performing specific tasks.
- Inventorying chemicals on hand and determining compliance with environmental regulations for storage of hazardous chemicals such as chlorine and fuel oil.
- Inspecting machinery to install proper guarding and safety features, and check for electrical grounding.

5.2 Additional Safety Training

Within the first two months after the Commencement Date, the Company shall conduct additional safety training. This training shall include computer software training on the compliance programs known as CARS and CMS used by the Company. The Company shall implement specific safety programs. Additional training tools shall be provided to assist with recognizing potential problems and planning courses of action to solve them quickly. Written safety programs shall be reviewed. Assistance shall be provided where needed to ensure that these programs meet regulatory requirements.

Company Environmental Health & Safety (EH&S) staff shall be available to the plant manager and facility staff as needed for continuing support and transferring the vital information that shall make the program a success. In addition, the EH&S staff shall monitor the program progress at the facility using standard Company procedures. Among the requirements are weekly activity reports, including modification and variances to the compliance schedules.

6.0 STANDARD OPERATING PROCEDURES (SOPs)

At the start of the Approval Period, the Company staff shall collaborate with the Borough to identify topics that require Standard Operating Procedures (SOP) development. During the Approval Period, the Company shall complete these documents for use in conjunction with employee on-the-job training and new employee training. During the SOP development, operational checklists shall either be prepared or reviewed to describe daily and weekly duties. Operations personnel shall field-verify all material before SOP finalization.

7.0 EXTERNAL TECHNICAL SUPPORT

A Technical Support Team of experienced plant managers within the Company shall implement the key management controls necessary to make transition activities during the Approval Period seamless.

APPENDIX 14

OPERATION AND MAINTENANCE REQUIREMENTS

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Attachment 1 - Public Relations Plan

**APPENDIX 14
OPERATION AND MAINTENANCE REQUIREMENTS**

**1.0 OPERATION AND MAINTENANCE OF THE MANAGED ASSETS AND
COLLECTION SYSTEM**

1.1 Wastewater Treatment Plant (Plant)

The Company shall provide continuous, full-service Management Services for the Managed Assets in both their existing condition, and during and after the Initial Capital Improvements and other Capital Modifications (if any) are completed, all of which services shall be in accordance with the Service Contract, meet or exceed Prudent Industry Practice, and be in full compliance with Applicable Law.

The Company shall accept for treatment all sewered and connected flows (including those from Naugatuck, Middlebury, Oxford, approximately 250 houses in Beacon Falls, leachate from the Laurel Park Superfund Site, and the pretreatment flow from the CMCI plant in Naugatuck) defined herein as Sewer Influent, and Community Septage, at a minimum to include septage from the Borough, Oxford and Beacon Falls. Middlebury Septage shall be accepted at the Incineration Facilities.

Prior to completion of the Initial Capital Improvements, during Managed Assets operations, all flows and loadings up to and including the Plant capacity (see Appendix 3) shall pass through the entire treatment plant and receive preliminary, primary, advanced secondary with nitrification, denitrification, chlorination and dechlorination treatment prior to discharge to the Naugatuck River.

After completion of the Initial Capital Improvements, the Plant capacity shall not be diminished and shall be in accordance with the requirements of Appendix 3.

The Company shall:

1. Provide full-service, 24-hour-a-day, seven-day-a-week operation and maintenance of the Managed Assets. Services shall be provided in accordance with an O&M Manual approved, as required, by DEP and EPA, with a Borough and DEP approved (if required) staffing plan, and with Prudent Industry Practice in full compliance with Applicable Law. The Company shall initially operate and maintain the Managed Assets in accordance with the existing O&M manual, modified, as needed, to meet all EPA/DEP requirements, and in accordance with Prudent Industry Practice, whichever is most stringent.-

A new O&M manual for the Managed Assets shall be prepared by the Company to accommodate the Initial Capital Improvements and provided to the Borough and DEP (if required) for review and approval. Thereafter, the O&M manual shall be revised as necessary, for any changes to operations and maintenance practices, for any additions or revisions to standard operating procedures and for any Capital

Modifications. The O&M manual shall incorporate practices as currently provided for in the existing O&M manual, as required by applicable regulations, or in accordance with Company standards and Prudent Industry Practice, whichever are more stringent. The O&M manual must be approved, as required, by DEP and EPA. The O&M manual shall include descriptions of the unit or system and component parts, its function, operating characteristics, and limiting conditions, and performance curves, engineering data and replacement parts for the equipment furnished by reference to manufacturer/vendor-supplied information contained in engineering design submittals to the Borough provided as part of the Initial Capital Improvements and as defined in the Service Contract.

The O&M manual shall also include complete maintenance instructions, parts lists, controls, and other information describing the construction, operation, control and maintenance of the Managed Assets.

In addition, the Company shall develop written Standard Operating Procedures (SOPs) required to perform its Management Services. All developed SOPs shall be made part of the revised O&M manual and shall contain detailed operation instructions for all unit processes to include: start-up and shut-down procedures, normal operation, process control descriptions, target values for all process related control parameters including set-points, monitoring requirements, emergency process control provisions and process recovery procedures during unit process upsets or abnormal conditions.

2. Comply with all aspects of the Service Contract and Applicable Law.
3. Provide training for personnel in the areas of wastewater plant operations, maintenance, safety, supervisory skills, laboratory, and energy management. This training will include both plant specific and general wastewater educational materials.

The Company shall notify the Borough in advance of any training programs held within the Borough and allow Borough participation in said programs. Class size shall be limited to that prescribed by the Company training policy.

4. Provide administrative and technical support services to ensure efficient operation of the Managed Assets. The services shall be provided as needed during the Term of the Service Contract.
5. Provide 24-hour-a-day access, for Borough personnel, to the Managed Assets. All visitors to the Managed Assets shall notify the Company upon arrival and shall comply with the Company safety policies and procedures.
6. Provide a quality assurance/quality control program (QA/QC Program) for sampling, testing, and analysis and perform monitoring, sampling, testing, laboratory analyses, and reporting, all as necessary for process control and full compliance with all State

and Federal regulations and permits and Prudent Industry Practice. All testing necessary for compliance with permits and State and Federal programs shall be performed by a Connecticut DEP certified laboratory, to the extent required by Applicable Law.

7. Perform all preventive, corrective and predictive maintenance and repairs for the Managed Assets in accordance with the O&M manual in effect.
8. Conduct all activities to maintain and enforce new and existing equipment warranties and guarantees.
9. Provide for capital repair and replacement, and repair or replace any materials, equipment or structures, which are in need of repair or fail during the Term of the Service Contract.
10. Provide the required labor, materials, machinery, vehicles, equipment, fuel, electricity, chemicals, supplies, materials, spare parts, expendables, Consumables, long-lead-time replacement items, and all other items to operate and maintain the Managed Assets. Spare parts shall be tagged and labeled for clear identification and stored properly for protection against damage.
11. Perform routine and normal repairs and maintenance of all structures, buildings and grounds which are part of the Managed Assets in accordance with Section 7.1(B) of the Service Contract. Maintenance shall include cleanup of litter and debris as necessary to maintain a clean and orderly site, painting, snow removal and landscaping services.
12. Provide security and safety for the Managed Assets in compliance with applicable health and safety regulations. Fences shall be maintained in neat order and structural integrity.
13. The standby power for the Managed Assets shall be exercised at least weekly and run under load according to manufacturer's recommendations.
14. Respond promptly to (within one (1) hour after notice, or as otherwise required) and rectify all normal problems and emergencies relating to the Managed Assets and maintain at all times during the Term of this Service Contract a local twenty-four (24) hour telephone number with person-to-person service where emergencies can be reported. The Company shall as soon as practically possible notify the Borough in the case of any emergency.
15. As soon as practically possible notify the Borough, if, during the course of excavation work necessary to make repairs and/or improvements to the Managed Assets, faulty or leaking underground storage tanks or hazardous or toxic waste or materials (as defined in applicable Federal and/or State laws and regulations and as are triggered by the reporting requirements of the Regulations of Connecticut State

Agencies or Federal laws) are identified by the Company, and immediately notify such other governmental agencies as may be required by law and take such further actions to assist the Borough in protecting the health, safety and welfare of the public.

16. Conduct emergency repairs to protect employees, equipment, buildings and grounds, as required. Notify the Borough in any such event.
17. Notify the Borough prior to undertaking any of the work or repairs that are not emergency situations referred to in Items 14, 15, and 16 and that are not in the Service Contract scope of service for the Company.
18. Provide for the satisfactory and proper handling, loading, transport and disposal of all Side Streams and Plant Sludge and other Managed Assets waste and residuals in accordance with Applicable Law and the Service Contract.
19. Remove and dispose, or sell unused and replaced equipment as required in the Service Contract. The Company shall identify such equipment. The Borough shall approve said list prior to removal.
20. Provide and maintain well-documented records of operations, maintenance, laboratory analysis, personnel, training, safety, process control, daily inspections, materials, alarms, and any other significant events.

The Borough shall be provided the capability to monitor executive-level report data for the SCADA system via an on-line, read-only computer terminal with 19-inch color monitor to be installed by the Company in the Borough at a location to be selected by the Borough. The computer shall be capable of being upgraded to be compatible with any future changes to the data systems, or the Company shall provide for a replacement computer to accommodate said changes. A color printer shall also be supplied to provide the Borough hard-copy output of data. Proper documentation of the aforementioned subjects must be presented for review upon request. All records and data (with the exception of personnel records) will remain the property of the Borough.

21. Prepare and sign all regulatory monthly operation and maintenance reports and monthly discharge monitoring reports. All monthly discharge monitoring reports shall be signed by the Company and, if required by DEP, the Borough. The Borough, if required to do so, agrees to sign such reports in a timely manner. Copies of all reports shall be sent to the Borough and to the EPA and DEP by required deadlines. The Company shall maintain records as required by the DEP. Such records shall be accessible to the Borough.
22. At least once per month, or more frequently if necessary, meet with the Borough to review and discuss operations and maintenance activities, reports, ongoing and expected expenses, plans, and events which may impact the delivery of service. At

any time, the facilities may be inspected by the Borough or its designated representative(s) to ensure all required work is being performed, including maintaining an acceptable level of cleanliness and appearance.

23. Conduct annual Managed Assets inspections. The Borough's designated representative(s) shall accompany the Company on these inspections.
24. Perform such repairs or maintenance items as identified in writing by the Borough as a result of any Borough inspection that reveals a lack of repairs or necessary maintenance to the Managed Assets as described by the O&M manual in effect. All such repairs or maintenance shall be performed on a schedule acceptable to the Borough. Disagreements arising from actions taken in this item shall be subject to the dispute resolution procedure in the Service Contract.
25. Maintain and provide for any monitoring, sampling and analysis required by DEP at the Managed Assets.
26. Provide for and maintain all Federal, State and local permits and other legal requirements that are the Company's responsibility and are necessary to operate and maintain the Managed Assets. This shall include incorporating the Initial Capital Improvements and any subsequent modifications into permit modifications as may be required. Future permits or permit modifications required for providing operations and maintenance services and which are identified as the Company's responsibility shall be procured and maintained by the Company with support from the Borough, and if appropriate, required changes will be subject to review under the Change-in-Law provisions of the Service Contract. For those permits in which the Borough and the Company are co-permittees, the responsibility of each party for procuring and maintaining said permits shall be as described in the Service Contract.
27. Maintain the Managed Assets in good working condition according to Prudent Industry Practice and Service Contract terms and restore said facilities to said condition at Service Contract termination, except for normal wear and tear. Restore all inventories of spare parts, equipment, fuels, chemicals, etc. to levels established by the initial Managed Assets inventory or those required by Applicable Law or Prudent Industry Practice, whichever is greater.

1.2 Collection System

1.2.1 Operation and Maintenance Generally

The Company shall provide continuous, full-service Management Services for the Collection System in both its existing condition, and during and after the completion of Collection System Improvements described in Appendix 2A and other future modifications are completed, all of which services shall be in accordance with the Service Contract, meet or exceed Prudent Industry Practice, and be in full compliance with Applicable Law. The scope of these services shall include those

services described in Section 1.1 of this Appendix 14 (Wastewater Treatment Plant), and also the specific items listed below.

1. Provide for capital repair and replacement, and repair or replace any Collection System materials, equipment or structures, which are in need of repair or fail during the Term of the Service Contract to the limits stated below.
 - Repair and replacement of the five Pump Stations up to a \$10,000 limit per Pump Station event, such limit escalated by the Adjustment Factor described in Section 12.4(D) of the Service Contract.
 - Repair and replacement of the balance of the Collection System (excluding Pump Station repairs and replacements) up to an amount of \$50,000 per year, such limit escalated by the Adjustment Factor described in Section 12.4(D) of the Service Contract.
2. Provide for all routine maintenance and repair for the five wastewater pumping stations including:
 - All utility costs for the pumping stations (including electricity and back-up fuel oil)
 - Pumps, valves, control systems, electrical systems
 - Painting of interior and exterior of all Collection System structures and appurtenances
3. In addition, the following other sewer collection system improvements and/or maintenance items shall be completed, subject to the \$50,000 annual cap detailed in Item 1 above:
 - Collect all data gathered in the course of these operation and maintenance services associated with the sewer collection system and provide the information in a database format for Borough records either by updating the old information or by establishing new information. This includes repair record drawings or as-built drawings, logs of complaints, sewer backup responses, etc.
 - Add, repair and/or replace manholes on an as needed basis.
 - Replace worn manhole rings and covers as needed.
 - Raise manhole rings and covers for Borough road reconstruction.
 - Repair or replace broken sewer services or mains caused by the negligence of others.
 - Carry out service connection repairs identified through investigations and inspections performed by the Company as part of the work described in

this Appendix 14 or as identified by the Borough.

- Carry out all necessary activities associated with flood control measures necessary for protection of Collection System Managed Assets pumping stations (i.e., sandbagging pump station assets in low lying areas, coordinate with Borough staff to identify plugged drainage pipes in areas where these could result in flood damage to pumping station, etc.)
4. Respond promptly to (within one (1) hour after notice, or as otherwise required) and rectify all normal problems and emergencies relating to the Collection System. The Company shall as soon as practically possible notify the Borough in the case of any emergency.
 5. The Company shall, within three (3) years of the commencement of Collection System O& M services, prepare a list of up to twenty (20) trouble areas in the Collection System which have a history of sewer backups. This list will be presented to the Borough for review and approval. Upon approval, these areas will be flushed once per year as a preventative measure to prevent sewer backups. This work will be carried out in addition to the routine sewer cleaning described in Section 1.2.2 below.
 6. The Company shall respond to all sewer Back-Ups within one (1) hour after notice and attempt to identify the cause. The response to the Back-Up will be as follows:
 - If the cause is identified as a problem (i.e. blockage) in a service connection, the Company's on-site representative will notify the homeowner of the problem who will be responsible for clearing the blockage.
 - If the cause is identified as a blockage in the Collection System, then the Company will take all actions to clear the blockage.
 - If the cause is a failure at a pump station, the Company will take immediate action to remedy the situation and will be responsible for any clean up needed after such a Back-Up.
 7. The Company shall keep a log of all sewer Back-Ups and forward a copy to the Borough on a monthly basis.
 8. Maintain, calibrate and read any meters (existing and future) associated with monitoring flows from Participating Entities.

1.2.2 DEP Mandated Collection System Work

The Company shall complete all DEP Mandated Collection System Work as described in the Wastewater Collection System Operations and Maintenance

Manual (Reference Document F). Specifically included in this work will be the following:

1. Root treatment of approximately 4000 lineal feet of sewer mains annually.
2. Annual video sewer pipe inspection in the amount of \$20,000, escalated by the Adjustment Factor described in Section 12.4(D) of the Service Contract.
3. Routine sewer flushing.

In the completion of this work, the Company will be allowed to utilize Subcontractors to carry out certain tasks which will be identified as Third Party DEP Mandated Collection System Work. Third Party DEP Mandated Collection System Work shall include video inspection and chemical root treatment. Unless otherwise approved by the Borough, payment for Third Party DEP Mandated Collection System Work will be treated as a reimbursable expense paid to the Contractor by the Borough in an amount not to exceed \$81,000 per year, escalated by the Adjustment Factor as described in Section 12.4(D) of the Service Contract.

In the execution of Third Party DEP Mandated Collection System Work, the Company will prepare an annual work plan which will detail the scope of the work involved that year. This plan will be submitted to the Borough for approval. Once approved, the Company will obtain, at a minimum, three competitive quotes for Third Party DEP Mandated Collection System Work, with the work being awarded to the lowest responsible bidder. If upon receipt of Third Party DEP Mandated Collection System Work bids, the Company determines that the annual budget of \$81,000 may be exceeded through the execution of the lowest responsible bidder, the Company shall notify the Borough immediately and revise (and resubmit for approval) the work scope in the annual plan of DEP Mandated Collection System Work so that the budget will not be exceeded. If necessary, the Company will re-bid the Third Party DEP Mandated Collection System Work.

2.0 COMPUTERIZED OPERATION AND MAINTENANCE MANAGEMENT

Operation and maintenance activities for the Managed Assets shall be administered using a computerized operations and maintenance management system provided by the Company. This system shall be operational within 120 days of the execution of the Service Contract, and integrated with the SCADA system when it becomes operational.

The Company shall incorporate use of the latest version of "MP2" by Datastream Systems, Inc. and the latest version of "OPS PAC", including SCADA interface capabilities, by OPS Systems.

The Company shall provide a process monitoring and control program as part of its computerized operation and maintenance management system. The process monitoring

and control program shall be designed to: assist in Managed Assets unit process optimization; schedule key operational functions to be executed on a daily, weekly and monthly basis; provide trending of input data to be used in establishing control set points and overall process monitoring; and assist in the evaluation of any permit violations and other troubleshooting functions.

The Company shall provide and install a fully functional maintenance management system capable of: providing records of preventive, predictive, and corrective maintenance activities; providing a record of repair for each piece of equipment or facility; scheduling and control of preventive, predictive and corrective maintenance; monitoring of predictive, preventive and corrective maintenance programs and associated costs; issuing work orders; maintaining a spare parts inventory; and issuing equipment status and repair reports.

As an integral part of the computerized maintenance management system, the Company shall establish an inventory control system to: account for the existing materials and parts; optimize the stocking of materials and parts; calculate the costs of materials and parts used for work orders; and control the ordering of materials and parts. The inventory control system shall be capable of tracking specific equipment, budgets and project costs.

The following are typical of the information to be provided by the Company's inventory control system:

- Inventory identification and description
- Location identification and description
- Manufacturer
- Manufacturer part number
- Number on hand
- Unit and unit cost
- Main supplier and alternative supplier
- Order level
- Order quantity
- Equipment item for which it is a spare part

The inventory system shall be capable of automatically calculating the appropriate order level and order quantity for an inventory item. This function shall be based upon the inventory turnover, how often orders are placed, and the expected delivery time.

The Company shall also establish a predictive maintenance program with tests conducted at least annually to monitor the condition of and need for maintenance or repair of major Managed Assets components. The Company shall obtain baseline predictive maintenance

data of the Managed Assets and enter the collected data into the computerized operations and maintenance program.

The Company shall tailor its computerized preventive maintenance program to the specific requirements of the Managed Assets equipment, consulting specific equipment maintenance manuals and supplementing existing historical records of maintenance to identify frequency and type of required maintenance.

Computerized work orders shall be established and responded to in terms of a prioritized ranking system. Rankings shall be established for equipment based on importance to process operation and impact on permit requirements.

The Company's operation and maintenance computer software shall have the capability of retaining historical data and information.

Typical of the Company's recorded data shall be the following:

- Laboratory results and associated information
- Operation parameters
- Maintenance performed
- Maintenance ordered
- Inventory on hand
- Purchases made
- Budget and cost information

3.0 RECORDS AND REPORTS

As further described below, the Company shall maintain records and prepare reports to the Borough documenting daily facilities' and systems' operations and maintenance, regulatory activities, laboratory analyses, staffing changes, training, process control, daily inspections, significant alarms, chemicals on hand, fuel on hand, maintenance plans and activities, permit and compliance results, equipment status, and other relevant information in accordance with Borough requirements, Applicable Law, and Prudent Industry Practice. The Borough and its designated representative(s) shall have full access to these reports and data at all times.

Records

The Company shall maintain records of historical data and information as described herein and as required by Federal, State and local laws and regulations.

Reports

The Company shall provide the following reports to the Borough:

Monthly Operations and Maintenance Report (MOR) – The Company shall prepare and provide to DEP and the Borough within 15 days of the end of each month an operations and maintenance report which meets DEP and EPA requirements. At a minimum, the Company shall identify any permit violations for the month and include a summary of Managed Assets performance, including the performance with respect to discharge permit effluent parameters, status of maintenance, major expenditures, flow quantity, and other pertinent information of the Managed Assets. The report shall: quantify the wastewater received both for Sewer Influent (with breakouts for Naugatuck, Middlebury, Oxford, Beacon Falls and CMCI) and for Community Septage deliveries by generator; document the quantity of wastewater treated and sludge generated; electricity, fuels and chemicals used; include maintenance monitoring reports; and include copies of any correspondence with regulatory agencies, including that associated with any permit violations. The report shall also list all maintenance work performed, the maintenance plan for the next month, and record keeping activities, including work order status, spare parts inventories, etc. The report shall document accidents, injuries, damages to Borough property, emergencies and alarm activations and the response actions taken by the Company. Data required by the Borough as part of the Monthly Operations and Maintenance Report that is not also required by the DEP or EPA, shall be delivered by the Company to the Borough within twenty (20) days of the end of each month.

Monthly Statement – A Monthly Statement shall be prepared which documents in sufficient detail for Borough verification the payment claimed by the Company.

Monthly Complaint Log – Within 15 days of the end of each month, the Company shall prepare and provide to the Borough a monthly report of all complaints relating to wastewater services. The report shall include a description of the response to the inquiry and an assessment of the complainant's satisfaction with the response.

Annual Operation and Maintenance Report – Within 120 days of the end of each Borough fiscal year, the Company shall prepare a report presenting a summary of the past year's operation and maintenance activities based on the monthly reports and presenting planned activities for the present year. Capital repair and replacement and capital improvements shall be discussed. The report shall also document in sufficient detail for Borough verification actual expenditures, annual flows of wastewater and Septage received and treated, sludge disposed, and any adjustments required in payments to the Borough or to the Company. The report should breakout wastewater flows of Sewer Influent for Naugatuck, Middlebury, Oxford, Beacon Falls and CMCI and Community Septage deliveries by generator. After submission of the report, the Company shall, at the Borough's request, meet with the Borough to review the report. The report shall be based on a summary of operations and maintenance activities covering all aspects of operations and predictive, preventive and corrective maintenance reported in the Monthly Operations and Maintenance Reports.

4.0 STAFFING

The Company shall provide a staff of qualified and experienced employees in accordance with a Company prepared Staffing Plan and DEP requirements and shall provide such additional support as may be needed to perform its duties and obligations hereunder. Additional Company support personnel or third parties shall be equally qualified for the particular services to be performed and shall not have any direct claim against the Borough whatsoever. The Company shall at all times maintain the necessary number of employees, staff and third-party contractors to operate, maintain and manage the Managed Assets in accordance with the Service Contract, to adequately maintain the Managed Assets in good repair, to adequately operate the Managed Assets to provide good service to the customers, and to protect the health, welfare and safety of the citizens of the Borough.

The Company shall provide: (i) qualified management, supervisory, technical, laboratory, and operating personnel, licensed as required by the State of Connecticut for operation and maintenance of the Managed Assets; (ii) a manager for day-to-day supervision; (iii) specialists, as may be necessary, in wastewater process control, instrumentation, troubleshooting, emergency management, and similar circumstances (the individuals to perform the services listed in (iii) do not necessarily have to be full-time on-site personnel); and (iv) office and clerical support staff as necessary.

The Company shall provide a technical support group that will provide on-call back-up advice, expertise and quality control, management, maintenance and repair to assist the operational staff and ensure performance of obligations hereunder and to design and construct any improvements to the Managed Assets. The Company's technical support group shall also provide assistance in the investigation, development and implementation of modifications in the processes as may be appropriate or necessary for regulatory compliance, worker safety, or process improvement.

The Company shall provide and maintain an organizational chart that lists job classification and the number of staff proposed for full-time operation. The Company shall notify DEP and the Borough of any proposed material revisions to the Staffing Plan and/or personnel organization for the Managed Assets.

The Borough shall have the right to approve the individuals designated from time to time by the Company as the project manager and the licensed operator to manage and oversee the Services to be provided under this Service Contract; provided, however, that said approval shall not be unreasonably withheld.

5.0 LICENSES

The Company shall acquire and hold, and cause its personnel to acquire and hold, all required Federal, State and local approvals, licenses, and certifications necessary to operate, maintain and manage the Managed Assets in accordance with Applicable Law.

6.0 TRAINING

The Company shall provide, as appropriate, overall career development, on-site direction, and support to on-site personnel, in addition to providing an ongoing series of specialized training programs in the following areas:

- Water and wastewater chemistry
- Laboratory
- Process control
- Operations and maintenance and repairs
- Fiscal management
- Personnel relations
- Safety
- Confined space entry
- QA/QC
- Right-to-Know
- IPP/Pollution Prevention
- Emergency preparedness and response

The Company shall notify the Borough in advance of any training programs held within the Borough and allow Borough participation in said programs. Class size shall be limited to that prescribed by the Company training policy. Training shall be an integral component of operation and maintenance services. Mandatory training shall be required for all personnel in general operation, and in area-specific and job-specific performance. Refresher courses shall be tailored for each area of responsibility. As new employees are introduced, experienced employees are given new assignments or new equipment/processes are introduced, a training program shall be implemented. Documentation of the training and evaluation of the results shall be completed.

The Company shall implement an employee communication program and, through quarterly training bulletins, send information to employees regarding future training activities. Through an individualized structured interview, the Company shall prepare a training action plan for each employee.

The Company shall maintain an automated training database to track the implementation of each training action plan, to send proposed training schedules to staff supervisors for their approval and to send individual schedules to each employee. The Company shall implement an employee recognition program by which employees are recognized for their accomplishments in training, certification, safety, public relations and community participation. Recognition may occur through press releases, plaques and awards.

Technical training, designed to provide an understanding of specific Managed Assets unit processes and programs and subsystem operation, as well as a foundation for vendor training, shall be provided by the Company in the following areas:

- Managed Assets systems and programs training to provide staff with a thorough knowledge of the larger Managed Assets systems and programs required to operate and maintain the Managed Assets such as process control, instrumentation and control systems and relevant Managed Assets-wide systems.
- Subsystem operation training to provide staff with detailed knowledge of how to operate and maintain the specific subsystems.
- Managed Assets-specific non-technical training to cover areas not addressed in the Managed Assets-specific technical category or vendor training.

- Health and safety training to include personal hygiene and health, employee responsibilities, safe practices, mechanical equipment hazards, hazardous operations, safety equipment, safety/accident reporting, accident investigation procedures and medical first aid.

Management and administrative training, covering the principles of supervision for managers, supervisors and those preparing for promotional opportunities, shall be provided by the Company in the following area(s):

- Train-the-trainer techniques will be offered for employees selected by the Company and involved in the staff development activities of subordinates and co-workers. Workshops will be designed to introduce the supervisory personnel to the requirements and skills needed to implement on-the-job training and its evaluation.
- Training will be provided in public and community relations, including interaction with visitors, descriptions of the Managed Assets and Managed Assets processes that are appropriate for visitors in different age groups.

As deemed appropriate by the Company, the Company shall cross-train employees between areas such as laboratory, operations and maintenance.

7.0 EMERGENCY PREPAREDNESS AND EMERGENCY SITUATIONS

The Company shall prepare an Emergency Preparedness Plan (EPP) in accordance with Federal and State regulations governing Emergency Action and Fire Prevention Plans and in cooperation with Federal, State and local officials and public safety departments. Potential emergency situations shall be identified and specific actions to minimize the chance of an emergency shall be described. The Company shall develop written policies, preventative measures and response actions necessary to manage Extremely Hazardous Substances (EHS) and systems that may pose a threat to the safety of workers and the surrounding Borough environment. These written policies shall be developed and implemented as necessary to comply with Federal and State safety, health and environmental regulations governing EHS.

In addition, the EPP shall address actual response and notification requirements for each type of anticipated emergency. The notification, depending on the situation, shall include the local Fire, Police and Public Works Departments, the Office of Emergency Management, and the applicable county, State and Federal agencies. The EPP shall also identify specific response actions that shall be taken by the Company and specific local or county or other applicable agencies to ensure that either the wastewater treatment services are not disrupted, or the disruption is minimized to the maximum extent possible.

The Company shall implement the EPP based on the following:

- *Operation and Maintenance Staff.* Operators shall be trained in the use of equipment and in the implementation of the EPP. Specific procedures, tailored

- to the Managed Assets shall be developed with operator input and shall be used in the event of equipment failure and customer complaints regarding wastewater service. Designated Contractor employees shall have personal pagers and on-call duties will be rotated at the Company's discretion to ensure the availability of adequate response on a 24-hour-a-day basis.
- *Emergency Operations Plan.* A written emergency operations plan shall be developed with the input of Borough departments and safety service officials. Procedures shall be rehearsed with appropriate Borough officials to ensure that response functions are properly executed in the event of an emergency. This plan shall meet the requirements of the DEP for a contingency plan, and shall cover potential emergencies due to natural disasters, power failures, spills or releases of contaminants, etc. The plan shall be developed and implemented and coordinated with the Borough.
 - *Monitoring Equipment and Alarms.* The Company shall provide monitoring equipment and alarms, for the Managed Assets. All key process functions shall be monitored, and when they exceed alarm setpoints, the early warning devices shall notify the on-call operator.

The Company shall immediately notify the Borough of any activity, problem, or circumstance that threatens the safety, health or welfare of the users of the Managed Assets or the residents of the Borough.

In the event of damage or destruction of the Managed Assets or any emergency, which, in the reasonable judgment of the Company, is likely to result in material loss or damage to the Managed Assets or constitute a material threat to human health or safety, the Company may suspend operation of the Managed Assets. Emergency repairs as are necessary to mitigate or reduce such loss, damage or threat to human health or safety shall be done in consultation with the Borough. Notification of emergency/noncompliance events within the Managed Assets shall be in accordance with permit requirements and an emergency plan to be developed by the Company and submitted to and approved by the Borough and the DEP and any subsequent amendments or modifications thereto.

The Company shall respond to emergencies and unusual circumstances in accordance with applicable regulations and requirements and with such personnel and equipment as necessary to maintain or restore the operations of the Managed Assets in a timely manner with the least possible disruption or inconvenience to the users of the Managed Assets.

8.0 OSHA COMPLIANCE

The Company shall prepare and implement a technical and safety training plan and program for the Managed Assets in accordance with OSHA requirements, Prudent Industry Practice and the Company standard practices, whichever are most stringent. The Company shall assign the administration of the technical and safety training plan and program to its appropriate staff.

Safety meetings shall be held regularly. Said meetings shall be used to provide safety training and to review site-specific job and general safety requirements.

Inspections by the Company's personnel responsible for health and safety shall be used as a tool in determining how the health and safety program is progressing in conformance with the established plan. Should an accident occur, a written accident investigation procedure shall be followed to document the accident and prevent re-occurrences.

9.0 ODOR CONTROL

The Company shall be responsible for: (1) managing odors from the Plant to minimize off-site odors and complaints; and (2) meeting applicable Federal, State and local standards and requirements, all in accordance with Appendix 16.

10.0 POLLUTION PREVENTION

The Company shall be responsible for managing and administering a Pollution Prevention Program (P2) as described herein. The Pollution Prevention Program goals include:

- Reducing overall pollution in the Naugatuck community; and
- Informing and educating Naugatuck businesses, institutions and residents on pollution prevention.

Programs under Pollution Prevention will include:

- Public education and;
- Water conservation/ economic development

The Company shall provide the services of a staff person for Pollution Prevention activities (Pollution Prevention Coordinator) to manage and administer the P2 program

Pollution Prevention services shall include, but are not limited to:

Public Education Program

The Company shall provide a public education and pollution prevention program to promote source and toxicity reduction from commercial and residential users who are not part of the State's Industrial Pretreatment Program. This work will be carried out in conformance with the Public Relations Plan in Attachment 1 to this Appendix 14. Examples of areas where this program will be promoted include: auto repair shops; dry cleaners; schools and hospitals; and other establishments which produce wastes in the form of cleaning solvents, oil, inks, paints, acids and/or alkalis. The Company shall utilize State, industry and other available documents and videos to support its efforts. As part of this program, the Company shall provide assistance referring those who are not part of the State's Industrial Pretreatment Program to the appropriate regulatory agencies.

The Company's public education program shall provide the following:

- Press releases at least four times per year informing the public of progress during the capital improvement program.
- Fact sheets and household guides explaining the regulations for pollution prevention and toxicity reduction to interested parties. The Fact sheets are to be issue or industry specific. Household guides shall advise the proper use, disposal and suggested alternative to hazardous products such as cleaners, solvents, paints, automotive products, pesticides and aerosol sprays. Fact sheets and household guides shall be made available upon request. At least twice each year, the Company shall announce in the local media the availability of the fact sheets and household guides.
- Presentations at least four times per year to local civic, environmental and other groups or at public events, which will include presentation of available videos on pollution prevention.
- References (available through State publications) to Connecticut vendors who accept, collect or purchase recyclable materials.
- A repository of publications pertaining to pollution prevention and waste policies, information about purchasing products made from recyclable products and directories of companies that provide these types of goods, recycling guidance documents and technologies that will be available to interested parties at the wastewater treatment plant or another location agreed to by the Borough.
- Routine electronic and print media interface, including issuance of press releases and press kits.
- Bi-annual Managed Assets open houses.

- Tours of the Managed Assets for interested members of the public.
- Technical assistance on source and toxicity reduction to target users of concern;
- A quarterly newsletter to inform neighbors of the Company's activities related to the Managed Assets.

The Company shall prepare these educational materials and provide for their distribution to household and non-significant industrial users as described above.

Water Conservation/Economic Development

The Company will assist the Borough in preserving Managed Assets capacity in order to allow the Borough to respond to economic growth. These programs will include:

- Audits – at the request of the Borough, the Company will conduct two in-depth water-use audits per year of local businesses, commercial establishments and industries with the goal of assisting the Borough in reducing water usage. The Borough and the Company will mutually agree on which businesses, commercial establishments and industries will be audited based on their water consumption and their willingness to participate. A report will be prepared and presented to the Borough describing the results of such audits. As part of the report, the Company will recommend water conservation equipment and practices.
- Education - The Company will provide and distribute a brochure(s) on household and industrial water conservation techniques. The brochure(s) will be sent to the Borough's water customers at least once per year.
- Technical Assistance – at the request of the Borough, the Company will also provide advice, from available Company resources, to the Borough on the development of municipal policies and programs, including application of water-savings fixtures and devices, such as flow restrictors, and low-water consumption systems, such as low-flush toilets in new developments.

11.0 SOLIDS HANDLING AND RESIDUALS MANAGEMENT

The Company shall provide for the satisfactory and proper transport and disposal of all Plant Sludge and Side Streams, and other Managed Assets residuals in accordance with Applicable Law. If Plant Sludge and other residuals are disposed outside of Connecticut, the Company shall also comply with Federal transportation requirements and the State and local requirements where the materials are disposed. The Company shall sample and test Plant Sludge and Side Streams consistent with Federal, State and local requirements and the requirements of the disposal site.

12.0 SUPPORT FOR PUBLIC HEARINGS AND REGULATORY APPROVAL OF CONTRACT

The Company shall work closely with the Borough to inform the public and interested parties about all aspects of the Managed Assets. The Company shall, as needed:

- a. Prepare and provide descriptive literature, brochures, and flyers.
- b. Participate in public hearings, public meetings and meetings of elected officials and interested groups.
- c. Participate in Borough public events.

In addition, the Company shall support the Borough in preparation of submittals to and meetings with the regulatory agencies, including DEP and EPA, which must approve the Service Contract and any modifications thereto.

13.0 LABORATORY MANAGEMENT

The Company shall perform all required sampling, testing and laboratory analyses for the Managed Assets and prepare and file, after Borough review, the required DEP and NPDES reports on behalf of the Borough.

The Company shall maintain a laboratory quality assurance and quality control program that ensures all regulatory data is legally defensible. The Company shall set up, audit and monitor all laboratory operations to ensure compliance with EPA standard test methods and any DEP requirements.

The Company shall use the latest edition of 40 CFR Part 136 of the Federal Register and any applicable DEP standards for all laboratory methods. The Company's QA/QC program shall produce accurate, reliable and reproducible data.

The Company shall implement a laboratory quality assurance program that will ensure:

- The treatment process is operated efficiently.
- The precision and accuracy of the lab data is statistically supported by quality control charts and graphs.
- The regulatory agencies have confidence in the laboratory results.
- The data is legally defensible.
- The laboratory staff is knowledgeable of laboratory operations.

Unless more stringent or comprehensive requirements exist at a Federal or State level, the following items shall be part of the Company's structured laboratory operations:

- Developing a chain of custody that documents sample possession from the time

of collection until the samples are discarded.

- Using analytical methods found in 40 CFR Part 136 of the Federal Register and those required by DEP.
- Performing 10% to 20% of the daily analyses for quality control testing of precision and accuracy, with 5% daily devoted to sampling quality control.
- Establishing control limitations for each analytical parameter based on 95% confidence intervals.
- Taking immediate corrective action when the quality control data does not stay within the 95% confidence intervals.
- Requiring the use of bound, numbered bench sheets for recording all laboratory information.
- Requiring all data generated by the NPDES Permit to be crosschecked before it is reported.
- Using good laboratory practices in sampling, testing, record keeping, validating and reporting.

The Company shall monitor the laboratory in the following manner:

- Performing a detailed laboratory audit annually.
- Sending unknown samples to the laboratory quarterly.
- Performing a project review annually.
- Reviewing the precision and accuracy control charts and graphs monthly.

The Company shall produce monthly laboratory reports that, when analyzed, determine the laboratory's effectiveness. The precision and accuracy reports, submitted with the monthly reports, shall determine the quality of laboratory performance based upon a comparison with other laboratories. The results of the Company's laboratory analyses shall be documented in a report format designed to meet the submission requirements of the State and the discharge monitoring report.

The Company shall also provide and implement a written plan to ensure safety rules and regulations are established and practiced in the laboratory as well as in the field. The Company shall provide written guidelines to assist the laboratory in meeting the needs of the various programs, in addition to providing training support.

ATTACHMENT 1

**PUBLIC RELATIONS PLAN
(PROVIDED BY THE COMPANY IN THEIR PROPOSAL)**

In the event of conflicts between the contents of the attached Public Relations Plan (provided by the Company in their Proposal) and the contents of this Appendix 14, Appendix 14 shall govern in all cases. Activities of the Public Relations Plan not described in Appendix 14 shall be a required service.

Public Relations Plan

At USFOS, fulfilling our contract promises means so much more than simply providing your ratepayers with superlative service they can depend on year in and year out. It means forming a genuine partnership with Borough residents to enhance the quality of everyday life.

We understand the importance of maintaining a professional, responsible, and reactive relationship with service recipients, the general public, media, and other Borough departments, including their representatives, advisors, and consultants. As a company, USFOS has direct experience with the regulatory agencies; we make every effort to represent and service our clients.

Customer Service Plan

While USFOS offers the Borough of Naugatuck a wealth of experience in the operation and maintenance of wastewater facilities, we also recognize the importance of making customer satisfaction a priority. Put simply, the quest for total customer satisfaction will be incor-

porated into every action we take. Our matchless Customer Service Program includes the following:

- 24-Hour, One-Call Service
- Maximum One-Day Response to Customer Inquiries
- Customer Service SOP
- Customer Service Quality Assurance

In Naugatuck, USFOS will implement a Customer Service Program that will provide prompt, efficient, and courteous customer service to include responsive and courteous handling of service orders, inquiries, and all other customer requests. The USFOS Customer Service Plan will stress the need to respond quickly to customer questions, complaints, and inquiries. ***USFOS will address all customer issues within 24 hours.***

24-Hour Emergency

Customer Service

The customers of the Borough of Naugatuck facility will be able to reach a USFOS employee 24 hours a day, seven days a week. From

Monday through Friday during the regular office hours, customers will have immediate access to any member of our staff. During the "off-hours," our customers will reach a voice messaging service that will immediately contact the shift manager. Because we recognize that issues don't occur just during normal business hours, USFOS doesn't make our customers wait for a response. *We guarantee customer contact within 30 minutes regardless of holiday periods or time of day.*

Customer Service Manual

Within the first six months of the contract, USFOS will develop a Customer Service Manual. This document will outline all elements and policies of the USFOS Customer Service Program, and set forth standard operating procedures for Program implementation of the Program. We will submit the manual for the Borough's review and approval, and modify it to reflect Borough revisions or recommendations.

USFOS customer service personnel will receive comprehensive training in the principles and procedures espoused in the Customer Service Manual. The combination of the manual and training will empower personnel to take prompt, consistent action. Among the pro-

cedures we teach our staff to achieve the highest standards of customer satisfaction and utility service are accurate billing, prompt installations, quick resolution of customer inquiries, and courteous contacts.

Customer Service Program

Quality Assurance

USFOS service employees are thoroughly trained to provide exemplary customer service. We back up this commitment with our Customer Service Program Quality Assurance Program. Any customer who does not feel satisfied with a service response will be encouraged to call the Plant Manager, who will ensure the issue is resolved to the customer's satisfaction.

We continually seek to improve on our customer responsiveness. USFOS plant and project managers meet regularly to discuss service results and implement corrective measures when necessary.

Public Relations

Maintaining good public relations and education can not be overstated. Reasons for this type of program emanate from the nature of how a wastewater treatment facility operates

and how it can affect the surrounding community. Since their tax and service rate dollars generally support facility operation and maintenance, we believe the public has the right to focus their concerns to the level to which they will be affected. On a positive note, the facility can be viewed as a community asset by safeguarding public health and allowing for growth in the local economy.

In all cases, USFOS believes that ensuring our service constituents are well educated and informed is critical to the long-term success of the facility operations. In recognition of the role of public support in our operation, we insist our staff handle public needs and questions with the utmost professionalism.

Public Education Planning

When developing an effective public education program, clearly defining program goals and objectives is key to its success. This involves examining present problems and developing a strategy to permanently correct the deficiency and prevent future occurrences. The USFOS plan involves:

1. Defining the true problem.
2. Identifying the affected audience.
3. Deciding on an effective communications method.

4. Determining the necessary level of research.
5. Developing communications vehicles.
6. Creating a planning calendar.
7. Evaluating staffing needs and budget requirements.
8. Identifying the parameters to evaluate the success of meeting program goals and objectives.

The first step in developing a plan is to conduct an open discussion with the highest level of management and decision-makers to address the budget and resource needs of the program. These discussions should define the procedures that will be used to identify problems and target audiences while a workable budget is being developed.

Media Relations

USFOS has found that working with the media to develop a proactive relationship before a crisis occurs is a highly effective strategy. Regular communication ensures that members of the media who must contact the facility will have an understanding and working knowledge of the operation. We will achieve this by:

1. Identifying local reporters and editors most likely to be interested in environmental and related issues.

2. Introducing them by letter and/or telephone to the plant manager and the staff to describe who USFOS is and what we represent.
3. Determining routine media interests, identifying their time constraints for deliverables, and deciding how they would best receive our ideas and information.
4. Establishing the organization as a professional and credible source.
5. Maintaining a cordial level of contact that does not wear out our welcome.

USFOS is prepared to commit to work with the media to sustain this relationship. Applying and effectively using the strategies listed below can greatly reduce common misunderstandings that can arise with the media.

- Initiate a press conference to distribute photographs and encourage media coverage
- Maintain regular communications between the facility and the media
- Supply facility information on a continuous basis
- Prepare and deliver press releases and fact sheets in usable formats

- Distribute professional and trade publications to generate a continuous and positive relation.

The variety of needs the media may have to assemble a story can require providing personal contact and/or printed information, sometimes on a moment's notice. By using the systems and methods outlined in this plan, USFOS will be prepared to meet these needs and deadlines. In order to ensure a proactive relationship with the media, we have researched tactics to effectively handle crisis communications. We believe the following action items will assist in anticipating and preparing an effective crisis response.

- Develop concrete responsibilities and tasks for each staff member.
- Designate the plant manager or appointee as the primary crisis contact.
- Formulate Strict procedures to enable quick notification of the media and key group members.
- Notify state or national affiliates of the key group members as necessary.
- Maintain a media list and inform contacts before they reach the facility
- Answering the media's questions clearly and honestly.
- Follow the public relations plan unless instructed by the plant manager.

Plant staff will be trained in the do's and don'ts of crisis communication. By calmly dealing with each situation as it arises, and being fair and open with the media, misunderstandings and unnecessary embarrassment can be avoided. At the same time, the media must also be open to criticism when mistakes have been made or the facts misrepresented in their releases and stories. We will professionally contact and inform the media of these occurrences and request a correction be issued so that the public and interested parties will have all the facts.

Our plan also includes items specifically aimed to educating and allowing the public and media a clear understanding of how the facility operates. These items include:

- Carefully prepared plant tours with knowledgeable and helpful plant staff
- Tours at different times of the day to accommodate busy schedules
- Preparation of support materials, brochures, videos, and general public educational aids
- Development of local school educational programs
- Open house or groundbreaking ceremonies for interested parties
- Open invitations to interested visitors to encourage open and honest commu-

nications, and to answer questions and discuss problems

- Participation by the plant staff at local fairs and events to positively portray the facility and its operations
- Development of a speaker's bureau to process the community and the media's needs and requests. These will range from conducting a speaking engagement to providing helpful printed materials.

Citizens' Support and Participation

USFOS acknowledges the importance of encouraging local citizen participation to ensure the success of the construction upgrade projects. Our plan emphasizes communicating with residents to answer questions and listen to their concerns. This will help to resolve any fears or apprehensions they may have concerning the facility improvements. Because their quality of life is directly affected by the facility operations, we will never overlook or ignore their concerns.

USFOS welcomes ratepayer participation and involvement early in the process to allow for a smooth transition of the projects. At the same time, early participation allows ample time to educate citizens in the nature of the

improvements. This process promotes honesty and fairness by those involved in the process. We will encourage communication, either person-to-person or through public meetings when USFOS will present factual information about the wastewater treatment facility and the planned improvements.

Our experience has proven that the following checklist promotes effective meetings. USFOS will review and prepare to:

- Respond to public objections with clear, concise answers
- Distribute detailed fact sheets
- Create clear visual aids
- Present exactly how the project will benefit operations
- Present any contingencies for continued operations during the process
- Emphasize benefits to the community
- React to negative effects on the community and describe actions to mitigate them
- Allow citizens to voice doubt and apprehensions concerning the project
- Train individuals in positive participation in order for them to be patient and listen attentively
- Focus on facts when criticized and presented with complaints

- Handle pressing questions or objections from the community
- Follow up on any issues in a realistic timeframe

These methods can be used at public hearings provided that the information presented is specific to the audience needs and level of understanding, and that the discussion be kept brief. The objective is to provide information, answer all follow-up questions, and respond to specific requests. Adhering to this format will promote a professional and honest long-term relationship with the community and the local media.

APPENDIX 15

**ASSET EVALUATION PROTOCOL
Managed Assets**

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Attachment 1 – Example Managed Assets Equipment List by System and Sub-System

APPENDIX 15

ASSET EVALUATION PROTOCOL Managed Assets

1.0 ASSET EVALUATION PROTOCOL IN GENERAL

The purpose of this Appendix is to present the protocol and procedures to be followed by the Company and the Borough, with the assistance of the Borough Engineer, to assess the existing condition of the Managed Assets for quantification of any changes in condition that may, from time to time, occur through the Term of the Service Contract and to ensure that the Company's maintenance program, including its capital repair and replacement program, is adequate to maintain the Managed Assets in a condition comparable to the condition of the Managed Assets at the Commencement Date, as further described in this Appendix.

The Managed Asset evaluation effort will include the development, by the Company, of a Managed Assets Registry, which will list all plant equipment and structures that comprise the Managed Assets. This registry will also present an estimated value of all equipment along with an estimated remaining useful life. This registry, once approved by the Borough, will be used by the Company to develop a Repair and Replacement Plan (RRP) which shall be sufficient, when carried out through the Term of the Service Contract, to properly maintain the Managed Assets. The RRP shall include a schedule that details when specific equipment will be scheduled for replacement or refurbishment (Projected Rebuild/Replacement Schedule).

The Projected Rebuild/Replacement Schedule shall be prepared by the Company and approved by the Borough prior to the Commencement Date and shall be used to assess whether the Company has fulfilled its rebuilding or replacement obligations. The Company shall produce the Projected Rebuild/Replacement Schedule, which shall be incorporated into the Service Contract as an attachment to this Appendix 15. The Projected Rebuild/Replacement Schedule shall represent a commitment by the Company to carry out a minimum level of rebuild or replacement for the maintenance of the Managed Assets. The goal of the Projected Rebuild/Replacement Schedule shall be to maintain Weighted Average Rebuild/Replacement Useful Life of the Managed Assets comparable to that which existed as of the Commencement Date.

An Exit Evaluation (as defined in Section 6 of this Appendix 15) will be carried out in year 18 or at the termination of the Service Contract, whichever occurs first. Year 18 of the Term is utilized so that there is sufficient time prior to the end of the Term to collect monies owed or to make the required rebuilds, replacements or repairs necessary to return the Managed Assets to a condition comparable to that at the Commencement Date.

In the event that the remaining Actual Weighted Average Rebuild/Replacement Useful Life (as defined in Section 5 of this Appendix 15), at the end of year 18 of the Service Contract or upon termination of the Service Contract, whichever occurs earlier, is less than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life presented in the Projected Rebuild/Replacement Schedule, the Company shall be responsible for payment for the value of such work as determined by the Borough Engineer for such deficiency or making the necessary replacement or rebuilds.

In addition, if final inspection of the facilities carried out in year 18 of the Term, or earlier at termination of the Service Contract, reveals that components not included in the Projected Rebuild/Replacement Schedule have not been properly maintained and have degraded beyond that which would be expected by normal wear and tear, the Company shall make the needed repair or make a payment to the Borough for the value of this work as determined by the Borough Engineer. Any payments will be based upon reasonable estimation of the costs required to remedy non-fulfillment of the RRP.

All parties will work diligently to reach agreement on matters dealing with the Managed Assets Evaluation. If disputes arise which cannot be settled through informal negotiation, the procedures for dispute resolution as described in Section 13.11 of the Service Contract shall be used.

2.0 SCHEDULE

The work described herein to develop the Managed Asset Registry, Projected Rebuild/Replacement Schedule, complete the Functionality and Structural Evaluations and prepare the Projected Weighted Average Rebuild/Replacement Useful Life for the Managed Assets shall be completed by the Company prior to the Commencement Date and no later than 90 days after the Contract Date, excluding review time by the Borough Engineer.

The Exit Evaluations, as described in Section 6.0 of this Appendix 15, shall be completed within 30 days of the beginning of the 18th year of the Term of the Service Contract or 30 days after notice of the termination of the Service Contract.

3.0 DETERMINING THE INITIAL USEFUL LIFE OF THE SYSTEMS AND SUB-SYSTEMS OF THE MANAGED ASSETS

The Company shall determine the useful life of each system and sub-system of the Managed Assets (the "Average Useful Life") using the procedures presented below. The Company, with approval of the Borough, shall perform these steps sequentially and shall receive written approval of each step prior to proceeding to the next.

3.1 Develop Managed Assets Registry

The Company shall develop a Managed Assets Registry (the "Registry") of all assets that comprise the Managed Assets. The Registry shall be a complete listing of all systems and sub-systems, including all equipment, structures and facilities that constitute the Managed Assets, as described herein.

The Managed Assets Registry shall be compiled on a system and sub-system basis in a format similar to that contained in Attachment 1 to this Appendix 15. For example, all Managed Assets that belong to the headworks, preliminary treatment system, etc., shall be grouped together. Likewise, all Managed Assets that are part of the primary treatment system, secondary treatment system, etc., shall be grouped together. Each asset within a system or sub-system shall be assigned a unique asset number that is entered into the Registry along with a short description (name) of the asset. The asset numbers, naming conventions and nomenclature used in the Company's computerized maintenance management system, developed pursuant to Section 7.5 of the Service Contract, shall be used. To the greatest extent possible, the Registry shall also include the date the asset was initially purchased and, if appropriate, the date it was installed and its original purchase or installed cost, as appropriate.

Assets included in the spare part valuation conducted pursuant to subsection 7.3(A) of the Service Contract shall not be included in the Registry. Obsolete or non-functional assets that will not be used by the Company in future operations shall be included in the Registry and clearly designated as being obsolete, but shall not be included in the Company's RRP.

For each asset listed in the Registry, an estimated replacement value will be provided. This estimate will be based on original cost (adjusted by the Adjustment Factor) or vendor quote for replacement or rehabilitation, whichever is available or deemed most representative. A component categorized as part of the Managed Assets that has a Replacement Value of less than \$5,000 shall be included in the Registry but shall not be included in the Company's Projected Rebuild/Replacement Schedule. Structures shall be included in the Registry but need not have an estimated useful life or replacement cost assigned.

As Initial Capital Improvements (ICI's) receive Acceptance they will be added to the Registry. The assigned replacement value of ICI's will be the cost of the initial improvements or an estimated refurbishment/replacement cost determined by the Company.

The Company shall compile the Registry using Microsoft Excel®, Microsoft Access® or some other computer software program mutually agreed to by the parties. The master copy of the Registry shall be prepared in hard copy form, each page of which shall be initialed by both parties. The Borough shall keep the master copy of the Registry. The Company shall also provide the Borough with an electronic copy of the Registry.

3.2 Estimate of Remaining Useful Life of System/Sub-System of Managed Assets

The Borough Engineer will verify the accuracy, including the proper designation of each asset, and completeness of the Registry prepared by the Company as described in Section 3.1 of this Appendix 15. The Company will then estimate the Remaining Useful Life of all the Managed Assets that have a Replacement Value equal to or greater than \$5,000 listed in the Registry, with the exemption of spare parts, obsolete or non-functional assets as described in Section 3.1.

This protocol shall be carried out for all equipment and structures that can be practically inspected but will not entail the disassembly of equipment or excavation of underground utilities or buried assets. In the case of tanks that contain internal mechanical components that cannot be readily inspected, such tanks will only be drained if deemed practical by the Borough Engineer and the Company, considering ongoing operations at the Managed Assets. In such cases, the Remaining Useful Life will be established using best available information. If it is deemed that tanks need to be emptied to inspect internal equipment, then it will be the Company's responsibility to provide all material, labor and equipment to carry out the tasks associated with these efforts.

Remaining Useful Life Evaluation. The Company will estimate the Remaining Useful Life value (in years, rounded to the nearest whole number) of all the Managed Assets that have a Replacement Value equal to or greater than \$5,000 listed in the Registry and are not spare parts, obsolete or non-functional assets. The Remaining Useful Life of an asset shall be based upon its reliability to perform its intended function, taking into consideration its performance history, physical condition, availability, replacement costs and maintenance cost history. In determining the Remaining Useful Life of an asset, the Company shall not consider whether an asset is outmoded and, if replaced, would enhance the capabilities of the Managed Assets.

To establish the Remaining Useful Life of the Managed Assets, the Company representatives will conduct the following:

- perform a visual inspection of the Managed Assets;
- review information concerning equipment design life, purchase and installation dates and other records to determine actual life of the Managed Assets;
- consult standard references concerning typical useful lives of wastewater treatment equipment;
- monitor related instrumentation to determine the assets' physical condition and operational characteristics;

- review repair and replacement records, and consult with manufacturers and/or vendors that may have been involved in the maintenance of the Managed Assets; and
- inspect readily accessible parts and surfaces for any installation problems, excessive vibration, noise or temperature, the condition of coatings, signs of wear or corrosion, and leakage of any fluids.

These inspection activities shall be conducted while motor-driven equipment is in operation. Upon completion of these tasks, the Remaining Useful Life of the Managed Assets Equipment shall be added to the Registry.

Upon completion of the estimate of Remaining Useful Life, this information will be presented to the Borough Engineer for review and approval. If requested, the Company will provide supporting documentation used to assess specific pieces of equipment or to determine remaining useful life. The estimate of the Remaining Useful Life of the Managed Assets will not be considered complete until the Borough Engineer has provided written approval to the Company.

4.0 PREPARATION OF A CAPITAL REBUILD AND REPLACEMENT PLAN

4.1 Projected Rebuild/Replacement Schedule

One goal of the RRP will be to establish a schedule (Projected Rebuild/Replacement Schedule) for refurbishment and replacement of Managed Asset equipment so that the Borough can be assured that the Managed Assets equipment will be returned to the Borough at the end of the Term (or sooner upon contract termination) in a condition comparable to the condition at the Commencement Date.

The basis for the Projected Rebuild/Replacement Schedule will be the approved Managed Assets Registry. Items that are included in the Registry, but are not included in the RRP, are items that:

- are spare parts;
- are obsolete or non-functional assets;
- are not anticipated to receive major repair, rebuilding or replacement (such as buildings and concrete and masonry buildings or structures);
- are of insufficient value (<\$5,000) to merit inclusion in the Evaluation Date assessment;
- equipment with a useful life less than three years; and
- have been excluded from the schedule by agreement between the Company and the Borough, even though the Company remains responsible for the function of

such components at the end of the Term in accordance with maintenance and performance obligations.

The Projected Rebuild/Replacement Schedule shall provide a listing of the schedule and estimated budget of expenditures during the Term for major refurbishment, rebuilding, or replacement of each piece of equipment identified in the Registry eligible to be included in the RRP. This will correspond to an annual RRP budget that can be tracked throughout the Term.

The budget for expenditures shall be based on the reasonably estimated cost of each component rebuild or replacement at the Evaluation Date (the "Component Rebuild Cost"). The Component Rebuild Cost shall be exclusive of on-site labor. The Component Rebuild Cost shall be amortized on a straight-line basis over the rebuild/replacement useful life of the equipment. An example of the Projected Rebuild/Replacement Schedule is presented Table 1.

Table 1: Example Projected Rebuild/Replacement Schedule for 20-Year Contract Term Beginning in 2000

1	2	3	4	5	6	7
Equipment No.	Equipment Name	Projected Rebuild/ Replacement Schedule	Rebuild/ Replacement Useful Life	Projected Rebuild/ Replacement Useful Life at End of Term	Unamortized Component Rebuild/ Replacement Cost	Annualized Component Rebuild/ Replacement Cost (Amortized Basis)
EX0001	Pump No.1	2003, 2008, 2013, 2018	5 yrs.	3 yrs	\$50,000	\$10,000
EX0002	Pump No.2	2004, 2014	10 yrs.	4 yrs.	\$400,000	\$40,000
EX0003	Pump No.3	2004,2008, 2012, 2016, 2020	4 yrs.	4 yrs.	\$80,000	\$20,000

The columns in Table 1 are represented as follows.

Column 1 Component Number: Specific equipment numbers assigned in the Managed Asset Registry.

Column 2 Component Name: Specific equipment names assigned in the Managed Asset Registry.

Column 3 Projected Rebuild/Replacement Schedule: Listing of the calendar years in which the Company commits to rebuild or replace the respective component during the Term.

The Projected Rebuild/Replacement Schedule shall be based on the number of years of useable service that a Managed Assets Rebuild/Replacement Component in “as-new condition” is expected to provide, assuming normal wear and tear, and normal maintenance. This value will differ with the type of service for which the component is used. The Projected Rebuild/Replacement Schedule shall indicate for each calendar year listed whether a rebuild or a replacement will occur in that year.

Column 4 Rebuild/Replacement Useful Life: The average interval of time between rebuilds or replacements of each system or component on the Projected Rebuild/Replacement Schedule (in years, rounded to the nearest year).

Column 5 Projected Rebuild/Replacement Useful Life at End of Term: The interval projected to be remaining at the end of Term prior to the next anticipated rebuild or replacement of each specific component of the Managed Assets included in the Projected Rebuild/Replacement Schedule. This number is calculated as the difference between the Rebuild/Replacement Useful Life and the number of years between the end of Term and the last rebuild or replacement, according to the Projected Rebuild/Replacement Schedule.

Column 6 Unamortized Rebuild/Replacement Cost: Cost of the rebuilding or replacement of each specific component of the Managed Assets included in the Projected Rebuild/Replacement Schedule, excluding on-site labor.

Column 7 Annualized Component Rebuild/Replacement Cost (amortized on an annual basis): The amortized cost to rebuild or replace each specific component of the Managed Assets included in the Projected Rebuild/Replacement Schedule after it has been amortized on a straight-line annual basis over the Rebuild/Replacement Useful Life.

As with the development of the Registry, the Projected Rebuild/Replacement Schedule shall be developed on a system and sub-system basis.

In addition to the Registry and Projected Rebuild/Replacement Schedule for Managed Assets existing as of the Commencement Date, there shall be separate Managed Asset Registries and Projected Rebuild/Replacement Schedules for each Initial Capital Improvement (ICI) and for each Capital Modification, unless excluded by mutual agreement of the Borough and the Company. As ICI's and Capital Modifications are completed, all components, subject to the minimum value (<\$5,000) exclusion, shall be entered into the Managed Asset Registry and their Projected Rebuild/Replacement Schedule developed. The calculations of the remaining weighted average useful life of the Managed Asset associated with the ICI's (the “Weighted Average Rebuild/Replacement Useful Life”) and any resulting compensation due the Borough at the end of the contract Term, or earlier upon termination of the Service Contract, shall be totally independent of the calculations for the Managed Assets existing as of the Commencement Date.

If Capital Modifications are carried out by the Company that entail the installation of equipment of a value of \$5,000 or more, this equipment will be added to the Registry and a separate Projected Rebuild/Replacement Schedule will be developed in the same manner as the ICI's.

All components that are permanently removed from service at the plant shall also be deleted from the Managed Assets Registry and the Projected Rebuild/Replacement Schedule. Components that are removed from service for an extended period of time but left in place shall be deleted from the Projected Rebuild/Replacement Schedule unless and until they are returned to service, but shall continue to be shown in the Managed Assets Registry. During any period of time that a Managed Assets component is removed from service, no time shall be deemed to have passed in connection with the useful life of the rebuild/replacement, e.g., in the event that a rebuild with a Rebuild/Replacement Useful Life of five years is performed five years prior to the Evaluation Date and, after two years of service, the Managed Assets Rebuild/Replacement Component is taken out of service, the rebuild will be deemed to have three years of useful life remaining at the Evaluation Date.

4.2 Functionality Evaluation

All equipment not included in the Projected Rebuild/Replacement Schedule will be subject to a Functionally Evaluation as described herein. This evaluation will be performed by the Company and recorded on a system and sub-system basis. The Functionality Evaluation shall determine if the assets operate properly and perform the function for which they were intended. All such determinations will be made in consultation with the Borough Engineer. Assets to be evaluated, as part of the Functionality Evaluation shall include:

- all exposed piping;
- all exposed pipe valves together with hydraulic system gates and weirs;
- instrumentation and control equipment not included in the Projected Rebuild/Replacement Schedule; and
- minor electrical/mechanical process equipment and systems including any asset/component whose installed cost is less than \$5,000 or whose expected useful life is less than three years.

All motorized and manually operated equipment, together with electrical equipment shall be observed by the Company's representative and the Borough Engineer for proper operation. Pipes shall be checked for overall condition and visible leakage.

As part of the Functionality Evaluation of these systems and/or sub-systems, each applicable system and/or sub-system of the Managed Assets will be placed into 1 of 3 categories. These categories will be as follows:

1. Good to Excellent overall condition: asset fully functional as designed with little to no visible defects or wear.
2. Fair overall condition: asset functions as needed for current operating conditions, visible sign of moderate defects and expected wear.
3. Poor overall condition: asset operable, but does not function as needed for current operating conditions, or asset is inoperable: visible signs of major defects, wear is more than expected and there may be personnel safety issues.

The results of the Functionality Evaluation shall be included in a separate section of the RRP. The results of this evaluation will be included in tabular form as depicted in Table 2. For comparative purposes, a similar evaluation will be made at the end of year 18 of the Service Contract or upon termination of the Service Contract, whichever occurs first.

Table 2: Example Functionality Evaluation

Asset Number	Asset Description	Functionality Defect(s)	Rating
EX0010	Chemical Room Safety Shower	None	Good
EX0015	Office Lighting	Minor Wear	Good
EX00020	Sludge Piping	Leaking Sludge Pumping Valves (Total: 6)	Fair
EX00062	Office Air Conditioner	Moderate wear	Fair
EX0078	Sludge room Sump Pump	Sump Pump Inoperative Motor	Poor

The Functionality Evaluation shall be subject to review and approval of the Borough Engineer.

4.3 Structural Evaluation

The Structural Evaluation, as defined herein, shall include visual inspection supported by photographic and video recording of all of the structures which comprise the systems and sub-systems of the Managed Assets, including, but not limited to:

- All accessible buildings and concrete structures, both above and visible structures below ground level, including doors, hatches, stairways, and windows;

- Walkways, roads and other paved areas;
- Structural components associated with Managed Assets Equipment (e.g. slabs, pits, supports etc.) not included in the Projected Rebuild/Replacement Schedule;
- Fencing, drainage structures, utility structures;
- Finish system – paint, sealants and other liquid applied finishes; and
- Floor, ceiling, roofs and wall systems – tiles, carpeting, raised floors and drop ceilings.

Structures and paved areas shall be checked for structural defects and damage, such as cracks and concrete deterioration that could reduce their useful life. Finish systems shall be visually inspected to assure that they provide adequate coverage and afford the desired protection. Occurrence of flaking, corrosion, rot and inadequate coverage should be noted. Floor, ceiling, roofs and wall systems should be visually inspected for excess wear and damages.

As part of the Structural Evaluation of these structures, each structure will be rated in 1 of 3 categories utilizing the following criteria:

1. Good to Excellent overall condition: asset fully functional as designed with little or no visible defects or wear or structural defects.
2. Fair overall condition: asset functions as needed for current operating conditions, visible sign of moderate defects and expected wear.
3. Poor overall condition: asset operable, but does not function as needed for current operating conditions, or asset is inoperable: visible signs of major defects, wear is more than expected and there may be personnel safety issues.

The results of the Structural Evaluation shall be included in a separate section of the RRP. The results of this evaluation will be included in tabular form as depicted in Table 3.

Table 3: Example Structural Evaluation

Asset Number	Asset Description	Structural Defect(s)	Rating
EX0010	Foundation Blower Building	None	Good
EX0015	Primary Clarifier Exterior Walls	Minor Cracks, No Leaks	Good
EX00020	Stairs to Primary Odor Control Building	Severe Wear, Rebar Showing	Poor
EX00062	Coating Sludge Holding Tanks	Minor Peeling	Good
EX0078	Foundation Blower No.3	Moderate Cracks	Fair

The Structural Evaluation shall be performed by the Company and shall be subject to review and approval of the Borough Engineer.

4.4 Excluded Managed Assets

Except as otherwise described in this Appendix 15, there are no Managed Assets excluded from this Appendix 15.

5.0 WEIGHTED AVERAGE REBUILD/REPLACEMENT USEFUL LIFE

The Weighted Average Rebuild/Replacement Useful Life is used as a baseline to quantify the remaining weighted average useful life of the equipment rebuilds and replacements of the Managed Assets that will remain at the end of the Term. This is accomplished by comparing the Projected Weighted Average Rebuild/Replacement Useful Life Value from the Rebuild/Replacement Schedule to the Actual Weighted Average Rebuild/Replacement Useful Life as calculated using the procedures described in this Section 5. As with the development of the Rebuild/Replacement Schedule, the Actual Weighted Average Rebuild/Replacement Useful Life evaluation will be carried out on a system and sub-system basis.

The initial evaluation to establish the Projected Weighted Average Rebuild/Replacement Useful Life along with the initial Functionality and Structural Evaluations, all carried out prior to the Commencement Date, shall be termed the "Baseline Asset Evaluation". The evaluation to quantify whether the Managed Assets have been properly maintained that will take place in year 18 of the Term, or at the termination of the Service Contract, whichever occurs first, shall be termed the "Exit Evaluation".

The Company covenants that at the end of the Term or upon earlier termination, the Actual Weighted Average Rebuild/Replacement Useful Life for each of the Managed Assets, on a system and subsystem basis, will be equal to 92.5% or more of the Projected Weighted Average Rebuild/Replacement Useful Life developed as of the Commencement Date. The comparison of the Weighted Average Rebuild/Replacement Useful Lives shall also be used to determine the need for rebuild or replacement activities and evaluate any compensation that the Company may owe the Borough, should the Company fail to meet this performance standard.

The Projected Weighted Average Rebuild/Replacement Useful Life is the weighted average of the remaining lives of each component of the Managed Assets included in the Rebuild/Replacement Schedule, adjusted to account for the differences in component costs and useful lives. The weighting shall reflect the Rebuild/Replacement Cost for each component, as listed in the Projected Rebuild/Replacement Schedule, with the value of the Rebuild/Replacement Cost adjusted to the end of Term. In the case of the last rebuild/replacement for a particular component prior to the end of the Term, the cost of the rebuild/replacement used in the evaluation of the Projected Weighted Average Rebuild/Replacement Useful Life will be the actual cost of the repair, rebuild, replacement or refurbishment, excluding Company on-site labor.

The Actual Weighted Average Rebuild/Replacement Useful Life is calculated utilizing the information presented in the Projected Rebuild/Replacement Schedule. As with the Projected Rebuild/Replacement Schedule, the Actual Weighted Average Rebuild/Replacement Useful Life will be evaluated on a system and subsystem basis (e.g. headworks, primary treatment, secondary treatment, etc.). The first step in determining the Actual Weighted Average Rebuild/Replacement Useful Life is to multiply the Adjusted Component Rebuild/Replacement Cost (amortized cost) for each component by the Projected Remaining Rebuild/Replacement Useful Life at the end of the Term to determine the Projected Useful Life Value at the end of the Term.

Next, the Actual Remaining Useful Life Value at the end of the Term for each component is calculated by subtracting the years since the last rebuild/replacement from the Projected Rebuild/Replacement Useful Life. For evaluations carried out in year 18 of the Term, two years will be subtracted from this value to account for the difference between year 18 and the end of the Term. For evaluations carried out as a result of termination of the Service Contract, the actual value at the date of termination will be used.

The Actual Remaining Useful Life Value at the end of the Term is the Actual Remaining Useful Life multiplied by the Adjusted Component Rebuild/Replacement Cost. The Projected Weighted Average Rebuild/Replacement Useful Life is found by dividing the sum of the Projected Useful Life Values for all components in a system or subsystem by the sum of the Adjusted Component Rebuild/Replacement Costs. The Actual Weighted Average Rebuild/Replacement Useful Life is calculated by dividing the sum of the Actual

Component Remaining Useful Life Values for each component in a system or subsystem by the sum of the Adjusted Component Rebuild/Replacement Costs.

An example of the calculation of the Projected Weighted Average Rebuild/Replacement Useful Life and Actual Weighted Average Rebuild/Replacement Useful Life can be found in Table 4.

Table 4: Example Weighted Average Rebuild/Replacement Useful Life

1	2	3	4	5	6	7
Equipment No.	Equipment Name	Annualized Component Rebuild/Replacement Cost	Projected Rebuild/Replacement Useful Life at End of Term	Projected Useful Life Value	Actual Remaining Useful Life at End of Term	Actual Remaining Useful Life Value
EX0001	Pump No.1	\$10,000	3 yrs.	\$30,000	3 yrs	\$30,000
EX0002	Pump No.2	\$40,000	4 yrs.	\$160,000	3 yrs.	\$120,000
EX0003	Pump No.3	\$20,000	4 yrs.	\$80,000	3 yrs.	\$60,000
Totals		\$70,000		\$270,000		\$210,000
Projected Weighted Average Rebuild/Replacement Useful Life (Total column 5 ÷ total column 3)				3.86 yrs.		
Actual Weighted Average Rebuild/Replacement Useful Life (Total column 7 ÷ total column 3)						3.0 yrs.

In this example, the Projected Weighted Average Rebuild/Replacement Useful Life Value is greater than that of the Actual Weighted Average Rebuild/Replacement Useful Life; therefore, implementation of the RRP was not sufficient to allow the Managed Assets to be maintained to a level projected in the development of RRP. The Actual Weighted Average Useful Life was 0.86 years less than that projected.

6.0 EXIT EVALUATION OF MANAGED ASSETS

Pursuant to Section 7.3 of the Service Contract, the Company shall perform an Exit Evaluation of the Managed Assets included in the Projected Rebuild/Replacement Schedule and make any payments to the Borough if there was a failure to properly maintain such Managed Assets. The Exit Evaluation will be conducted for all Managed Assets, including the assets at the Commencement Date, Initial Capital Improvements and Capital Modifications. The Exit Evaluation shall be an evaluation utilizing the protocols and

procedures described in this Appendix 15, Section 5 for the calculation of Projected and Actual Weighted Average Rebuild/Replacement Useful Lives. The purpose of Exit Evaluation shall be to quantify the difference in the condition of the Managed Assets from the Commencement Date to the end of the Term. The Exit Evaluation shall be conducted at year 18 of the Term, or at termination of the Service Contract whichever occurs first.

In addition to the Exit Evaluation carried out by the Company for the Managed Assets included in the Projected Rebuild/Replacement Schedule, the Company and the Borough Engineer will inspect the facilities at the end of the Term, or at the termination of the Service Contract, whichever comes first, to determine if any of the components not included in the Projected Rebuild/Replacement Schedule have been degraded to a condition beyond that which would be expected by normal wear and tear. The Company shall prepare and submit to the Borough a report of its findings of the inspection.

6.1 Weighted Average Useful Life Costs

The Managed Assets shall be returned to the Borough in a condition and state of repair such that, at the end of the Term, the Actual Weighted Average Rebuild/Replacement Useful Life of each system/sub-system of the Managed Assets is equal to or greater than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life of the systems/sub-systems of the Managed Assets determined through the Baseline Asset Evaluation conducted pursuant to Section 7.3 of the Service Contract. In satisfying this requirement, the Company shall not arbitrarily replace a single item of a system/sub-system of the Managed Assets for the sole purpose of creating a weighted average useful life of each system/sub-system of the Managed Assets equal to or greater than the weighted average useful life of the system/sub-system of the Managed Assets determined through the Baseline Asset Evaluation.

The Weighted Average Rebuild/Replacement Useful Life for each subsystem, projected to exist at the end of the Term (Projected Weighted Average Rebuild/Replacement Useful Life) shall not change throughout the Term. The Actual Weighted Average Rebuild/Replacement Useful Life may not be the same as the Projected Weighted Average Rebuild/Replacement Useful Life, if the Projected Rebuild/Replacement Schedule is not implemented as planned. A comparison of the Actual Weighted Average Rebuild/Replacement Useful Life to the Projected Weighted Average Rebuild/Replacement Useful Life will be carried out in year 18 of the Service Contract, or earlier upon termination of the Service Contract. If the results of this comparison indicate that the Actual Weighted Average Rebuild/Replacement Useful Life for each subsystem exceeds or equals 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life, there will be no adjustment.

If the results of this comparison indicate that the Actual Weighted Average Rebuild/Replacement Useful Life for any subsystem is less than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life for that subsystem, the Company shall make a

one-time payment to the Borough to account for the deficiency. The amount of this payment will be equal to the amount which would be needed to be added to the sum of the Actual Remaining Useful Life Values so that the Actual Weighted Average Rebuild/Replacement Useful Life is equal to 92.5% or more of the Projected Weighted Average Rebuild/Replacement Useful Life. For the example depicted in Table 4, this value would be calculated as follows.

Projected Weighted Average Rebuild/Replacement Useful Life = 3.86 yrs

$3.86 \text{ yrs} \times 92.5\% = 3.57 \text{ yrs}$

Actual Weighted Average Rebuild/Replacement Useful Life = 3.0 yrs

Weighted Average Rebuild/Replacement Useful Life, in years, to be made up by Company: $3.57 \text{ yrs} - 3.0 \text{ yrs} = 0.57 \text{ yrs}$

Payment due from Company to Borough equals (years to be made up) X (sum of adjusted Component Rebuild/Replacement Cost (\$70,000 in example))

Amount due $0.57 \text{ yrs} \times \$70,000 = \$39,990$

In cases where the Company's RRP was found to be deficient, the Company has the option to carry out the rebuild or replacement in lieu of making payment to the Borough.

6.2 Costs for Degradation Beyond Normal Wear and Tear

Any components not included in the Projected Rebuild/Replacement Schedule which are not functional or have been degraded to a condition beyond that which would be expected by normal wear and tear shall be repaired or replaced by the Company or the Company shall make a payment to the Borough equivalent to the value of this work as determined by the Borough Engineer through use of outside contractors. If a dispute arises, the procedures for dispute resolution as described in Sections 13.11 and 13.12 of the Service Contract shall be used.

7.0 REPORTING AND UPDATES

The Company shall update the Registry at least once per year. All newly added assets shall be entered in the Registry together with their evaluation designators, installation date, and installed cost. All assets that are removed from the Managed Assets as the result of the ICI's or Capital Modifications being brought on line shall be deleted from the Registry if they are removed from site for disposal. Assets that are removed from service but left on site shall continue to be shown in the Registry as "obsolete". These assets shall be designated as not included in the evaluations. The Company shall provide the Borough a

computer-readable form of all updated Registry listings along with a written summary of the changes made in the Registry since it was last updated.

Every three (3) years throughout the Term, the Company shall calculate the Actual Weighted Average Rebuild/Replacement Useful Life and compare it to the Projected Weighted Average Rebuild/Replacement Useful Life. This comparison will be presented to the Borough in report form. If the Actual Weighted Average Rebuild/Replacement Useful Life is less than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life, the Company shall provide written explanation as to why the Company's RRP is not meeting the Company's commitment for maintenance of the Managed Assets and present a plan of action to remedy the situation.

The Exit Evaluation carried out in year 18, or earlier in the case of termination of the Service Contract, shall use the Asset Evaluation Protocol described in this Appendix 15 and as may have been modified by mutual agreement by both the Company and the Borough during the initial evaluation.

A final inspection of Managed Assets will be conducted by the Company and the Borough at the end of the Term to verify compliance with the RRP.

ATTACHMENT 1

EXAMPLE MANAGED ASSETS EQUIPMENT LIST BY SYSTEM AND SUB-SYSTEM

The following is a partial list of the Managed Assets provided to demonstrate how the Managed Assets Registry is to be developed. The Company is to provide a complete list, including all electrical devices, as part of the evaluation of Managed Assets.

PLANT

Headworks and Preliminary Treatment Sub-System

- Main Influent Flow Meter
- Aerated Grit Chamber Air Diffuser Assemblies
- Septage Holding Tank Air Diffuser Assemblies (2)
- Septage Plunger Pumps (2)
- Septage Sump Pumps (2)
- Septage Tank Air Blower
- Aerated Grit Tank Air Blowers (2)
- Channel Monster
- Bypass Bar Racks (2)
- Septage Bubbler system

Primary Treatment Sub-System

- Aerated Grit Tank Air Blower
- Primary Influent Blowers (2)
- Primary Settling Tank Cross Collectors (6)
- Primary Settling Tank Longitudinal Collectors (6)
- Primary Settling Tank Scum Collectors (6)
- Primary Scum Grinder
- Primary Sludge Plunger Pumps (3)
- Primary Sludge Hydraulic Valves (6)
- Hydraulic Actuator system

Secondary Treatment Sub-System

- Primary Effluent Screw Pumps (3)
- Aeration Influent Channel Aeration Blowers (2)
- Mechanical Aerators (8)
- Aeration Effluent Polymer Feeders (2)
- Foam Spray Water Pumps (2)

- Final Settling Tank Sludge Collectors (4)
- Secondary Scum Pump
- Return Activated (RAS) Sludge Pumps (3)
- Waste Activated (RAS) Sludge Pumps (2)
- Secondary Scum Well Mixer
- Sump Pumps (2)
- Effluent Water Strainer

Disinfection and Chlorine Contact Tanks Sub-System

- Chlorine Tank Storage Cradles (6)
- Hoist
- Monorail
- Chlorine Scales (2)
- Evaporators (2)
- Chlorinators (2)
- Chlorine Injector Pumps (2)
- Chlorine Mixing Chamber Mixer
- Scum Collectors (2)
- Scum Pumps (2)

Effluent Lift Station Sub-System

- Screw Pumps (3)
- Sump Pump

HVAC/Plumbing Sub-System

- Hot Water Boiler (Lab/Office Bldg)
- Gas Fired Unit Heater (Garage)
- Hot Water Heater in Sludge Building
- Hot Water Recirculating Pumps (Lab/Office Bldg) (2)
- Room Air Conditioners (5)
- Hot Water Recirculating Pumps (Operations Building) (8)
- Hot Water Unit Heaters (22)
- Air Handling Units (8)
- Hydropneumatic Tank Effluent/Service (2)
- Effluent Flushing Water Pumps (2)
- Effluent Flushing Water Strainer

Odor Control

- Activated Carbon Adsorbers (Headworks) (2)
- Activated Carbon Tanks (Primary Tanks)

Power and Distribution

- Generators (Primary/Secondary) (2)
- Main Switchgear

Samplers

- Final Effluent Sampler (ISCO)
- Influent Sampler (ISCO)
- (Older) Automatic Samplers (2)

APPENDIX 15A

**ASSET EVALUATION PROTOCOL
Pump Stations**

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**APPENDIX 15A
ASSET EVALUATION PROTOCOL
Pump Stations**

1.0 GENERAL

The wastewater pumping stations (Pump Stations) which are part of the Collection System as described in Appendix 1 shall not be included as part of the Asset Evaluation Protocol for the Managed Assets as described in Appendix 15.

The Company shall maintain the Pump Stations in accordance with the requirements for operations and maintenance for the Collection System as described in Appendix 14, Section 1.2. To ensure that the Company maintains the Pump Stations in a condition satisfactory to the Borough, the Company shall adhere to the requirements of this Asset Evaluation Protocol for the Pump Stations. The Company shall complete precondition surveys of all five (5) Pump Station facilities. These surveys shall include a Functionality Evaluation (as described in Section 2 of this Appendix 15A) and a Structural Evaluation (as described in Section 3 of this Appendix 15A).

2.0 FUNCTIONALITY EVALUATION

All Pump Station components will be subject to a Functionally Evaluation as described below. This evaluation will be performed by the Company and recorded separately for each facility. The Functionality Evaluation shall determine if the components operate properly and perform the function for which they were intended. All such determinations will be made in consultation with the Borough Engineer.

Assets to be evaluated, as part of this evaluation shall include:

- Exposed piping;
- Exposed pipe valves together with hydraulic system gates and weirs;
- Instrumentation and control equipment; and
- Electrical/mechanical process equipment and systems.

All motorized and manually operated equipment, together with electrical equipment shall be observed by the Company's representative and the Borough Engineer for proper operation. Pipes shall be checked for overall condition and visible leakage.

As part of the Functionality Evaluation of each Pump Station, each component will be rated in 1 of 3 categories. The rating will utilize the following criteria:

1. Good to excellent overall condition: asset fully functional as designed with no visible defects or wear.

2. Fair overall condition: asset functions as needed for current operating conditions, visible sign of moderate defects and expected wear.
3. Poor overall condition: asset operable, but does not function as needed for current operating conditions, or asset is inoperable. Visible signs of major defects, wear is more than expected and there may be personnel safety issues.

The results of the Functionality Evaluation shall be recorded separately for each Pump Station. The results of this evaluation will be included in tabular form as depicted in the example in Table 1.

Table 1: Example Pump Station Functionality Evaluation

Platt Mills Pump Station			
Asset Number	Asset Description	Functionality Defect(s)	Ranking
EXP01	Pump No. 1	None	Good
EXP02	Pump No. 2	None	Good
EXP03	Emergency Generator	Excessive Vibration	Fair
EXP03	Dehumidifier	None	Good

The Functionality Evaluation shall be subject to review and approval of the Borough Engineer.

3.0 STRUCTURAL EVALUATION

All Pump Station components not included in the Functionality Evaluation will be subject to a Structural Evaluation, as described below. This evaluation will be performed by the Company and recorded separately for each facility. The Structural Evaluation shall include visual inspection supported by photographic and video recording of all of the structures which comprise the Pump Station facilities, including, but not limited to:

- accessible buildings and concrete structures, both above and visible structures below ground level, including doors, hatches, stairways, and windows;
- walkways, roads and other paved areas;
- structural components associated with the pump stations (e.g. slabs, pits, supports etc.);
- fencing, drainage structures utility structures;

- finish system – paint, sealants and other liquid applied finishes; and
- floor, ceiling, roofs and wall system – tiles, carpeting, raised floors and drop ceilings.

Structures and paved areas shall be checked for structural defects and damage, such as cracks and concrete deterioration that could reduce their useful life. Finish systems shall be visually inspected to assure that they provide adequate coverage and afford the desired protection. Occurrence of flaking, corrosion, rot and inadequate coverage should be noted. Floor, ceiling, roofs and wall systems should be visually inspected for excess wear and damage.

As part of the Structural Evaluation of these structures each will be rated in 1 of 3 categories utilizing the following criteria:

1. Good to excellent overall condition: asset fully functional as designed with no visible defects or wear or structural defects.
2. Fair overall condition: asset functions as needed for current operating conditions, visible sign of moderate defects and expected wear.
3. Poor overall condition: asset operable, but does not function as needed for current operating conditions, or asset is inoperable. Visible signs of major defects, wear is more than expected and there may be personnel safety issues.

The results of the Structural Evaluation shall be reported separately for each Pump Station. The results of this evaluation will be included in tabular form as depicted in Table 2.

Table 2: Example Pump Station Structural Evaluation

Platt Mills Pump Station			
Asset Number	Asset Description	Structural Defect(s)	Rating
EXP01	Driveway	Some Cracks	Good
EXP02	Access Hatch	None	Good
EXP03	Roof	Good Condition, Little Wear	Good
EXP03	Wet Well	Concrete Good Condition	Good

The Structural Evaluation shall be subject to review and approval of the Borough Engineer.

4.0 REPAIR AND REPLACEMENT COSTS

At the end of the Term, or earlier upon termination of the Service Contract, the Company and the Borough Engineer will inspect the facilities to determine if any of the components have not been properly maintained in accordance with the requirements of the Service Contract. The Company shall make a report of its findings of the inspection. Any components that are not functional or have been degraded to a condition beyond that which would be expected by normal wear and tear, will be repaired or replaced by the Company or the Company will make a payment equivalent to the value of this work to the Borough as determined by the Borough Engineer through estimates from outside contractors. Disputes will be subject to dispute resolution as described in Sections 13.11 and 13.12 of the Service Contract.

The Company shall not bear the cost of repair or replacement of any components found to be not functional or found to have been degraded to a condition beyond that which would be expected by normal wear, if (i) these components are identified by the Company as needing repair and the cost of this repair work is in excess of the \$10,000 maintenance cap described in Section 7.2 (C) of the Service Contract; and (ii) the Borough elects not to approve expenditures above this \$10,000 cap to complete this work.

APPENDIX 16
ODOR CONTROL PLAN

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APPENDIX 16

ODOR CONTROL PLAN

1.0 ODOR CONTROL PLAN IN GENERAL

Subject to Section 6.3 of the Service Contract, the Company shall operate the Managed Assets to comply with all limits and requirements of Applicable Law. In addition, the Company shall comply with the Odor Control Plan described in this Appendix 16.

2.0 COORDINATION WITH ODOR CONTROL CAPITAL IMPROVEMENTS/ODOR GUARANTEES

In order to make an enforceable odor control guarantee to meet or exceed the Borough of Naugatuck's performance standards, the Company will install the additional systems and make improvements as described in Appendix 2. Odor guarantees for Pre-ICI Acceptance and Post-ICI Acceptance are described in Section 6.3 of the Service Contract.

3.0 ODOR CONTROL PLAN

3.1 Pre-ICI Odor Control Activities

Prior to ICI Acceptance of the Initial Capital Improvements related to odor control, the Company shall be responsible for managing odors from the Managed Assets to minimize off-site odors and complaints with the objective of achieving and maintaining compliance with Applicable Law and in all cases shall operate and maintain the Plant in accordance with Prudent Industry Practice. Upon commencement of operations, the Company shall maintain and operate all existing odor control systems in place at the Plant to their highest efficiency, including the existing Ceilcote® wet scrubber system at the primary clarifiers, until the Initial Capital Improvements are completed. In addition, the Company shall be responsible for reporting promptly odor complaints and correcting promptly odor problems in accordance with the requirements of this Appendix 16.

Activities to manage odors shall include but are not limited to the following:

Good Housekeeping

The Company shall implement a regimented housekeeping schedule and work plan for the Managed Assets to maintain clean facilities.

Proper Sludge Management

The Company shall provide proper sludge management within the Managed Assets including, but not limited to:

- Control of the sludge blanket and solids inventory in the primary and secondary clarifiers and gravity thickeners at the Plant;

- Operation of the Plant sludge holding tanks as necessary, to maintain minimal sludge quantities within the Plant;
- Control of the solids in the activated sludge process;
- Frequent processing of Side Streams and Plant Sludge from Managed Assets components to avoid excessive sludge in storage;
- Optimization of chemical dosages to reduce solids inventory within the Managed Assets; and
- Timely repair and replacement of equipment, in accordance with the Service Contract, that would impact the Company's ability to rapidly remove solids from the liquid unit processes.

Efficient Process Control

The Company shall maintain a proactive approach to odor control through diligent process control of the unit operations of the Managed Assets. Typical of these are:

- Operation of the Plant at appropriate solids retention times, for summer and winter requirements, to minimize waste activated solids and related sludge production;
- Ongoing evaluation of the Managed Assets odor control systems to insure adequate control of the controllable parameters;
- Optimization of sludge processing to reduce the on-site sludge inventory; Providing automated dissolved oxygen control for the activated sludge process at the Plant;
- Optimizing the Plant's operating capacity by operating standby aeration reactors during peak flow conditions (not currently applicable);
- Controlling sulfides entering the Plant during warm weather through chemical treatments as needed;

Response to Odor Complaints

The Company shall respond to any complaints concerning odors in accordance with this Appendix 16.

For the purpose of this Odor Control Plan, an odor complaint is one verified by the Company originating from the Managed Assets that the Company operates and has direct control over. The Company must respond to the complaint, contact the complainant, inspect the area, and take corrective action as necessary within four (4) hours. Further, the Company will be notified immediately if any agency has received a complaint. If the complaint is received by any agency, it shall only be deemed to have been received by the Company when actual notice of it is received. The Company shall then respond to the complaint. If it is verified as a Managed Assets problem, the Company will have four hours from the time of notice to correct

the problem to the extent required by the Service Contract. A Company representative, accompanied by a representative that the Borough may send, shall survey the community after the Company has resolved the problem, to verify that the odor problem has been corrected. After correction, the Company shall make a follow-up call to the complainant to ascertain that the problem odor has dissipated. The Company shall then complete the complaint monitoring form, which will include:

- Name/address of complainant (resident information);
- Time of call;
- Time of odor incident and location of odor;
- Description of complaint and odor;
- Wind direction, speed and temperature;
- Direction and distance of complainant from WWTP;
- Results of investigation such as odor intensity, description of odor, and identifiable odor source;
- Corrective actions taken; and
- Completed community odor survey, if applicable (working back towards the WWTP).

Use of Local Odor Panel

The Company shall be responsible for establishing and maintaining a Local Odor Panel throughout the Term of the Service Contract for the purpose of reviewing any odor complaints, allowing for community odor observations if desired, and monitoring effective communication with the community on odor issues. At the Commencement Date, the Company shall adopt as the Local Odor Panel the existing WWTP Odor Committee, subject to the approval of all members by the Borough. Future changes in members of the Local Odor Panel will require Borough approval. The Local Odor Panel will meet at least four times each year.

Panel members may call by telephone for a special meeting or an inspection if they believe a strong or severe odor exists. The panel shall determine the date of inspections and preserve their confidentiality until inspection. A route will be followed with preselected odor observation points, with the panel starting at the furthest point from the WWTP and getting incrementally closer. The survey will consist of identifying any odor observations, quantifying the intensity, attempting to identify the source and identifying the remedial measures necessary to address the cause of the odor.

3.2 Post-ICI Odor Control Activities

Following acceptance of the odor control ICIs, the Company shall control odors from the WWTP so as to eliminate nuisance odors beyond the Plant Site. To achieve this goal, the Company will implement a comprehensive program in which it will:

- Install odor control systems; i.e., ICIs, as described in Appendix 2, and other controls if necessary to eliminate nuisance odors;
- Properly maintain and operate new and existing systems;
- Comply with current, applicable (Pre-ICI) odor control practices, including participation in the Local Odor Panel (as described in Section 3.1 of this Appendix 16);
- Respond and properly investigate all odor complaints in accordance with the procedures described in this Appendix 16;
- Perform a “Baseline Odor Conditions” survey and an odor survey(s) after ICI completion; and
- Prepare an Odor Scorecard for monthly performance assessment.

A description of the integration of the ICIs and operations to control odors, the Baseline Odor Conditions survey, other post-ICI Company responsibilities in general and the Odor Scorecard follow.

3.2.1 Integration of Odor Control Capital Improvements for Managed Assets

Specifically, the Company will:

1. Construct new odor control systems, including installation (as part of ICIs) of a new vapor phase activated carbon air scrubbing system at the primary settling tanks. The Company will also install a cover over the existing uncovered primary settling tank that will be connected to this new air scrubbing system. This, along with the existing Ceilcote® scrubber, will treat air from the headspace under the covers for the primary sedimentation tanks and effluent channels and secondary influent channels. Covers on the primary clarifiers shall be replaced when their useful life is exceeded during the Term of the Service Contract.
2. Conduct performance tests to verify performance of the new scrubber system, including: testing the Ceilcote® wet scrubber; analyzing the output of the system to verify that 95-99% H₂S removal efficiency is being achieved; and balancing the system and airflow to optimize the efficiency of the unit.
3. As part of the capital upgrades for nitrogen removal at the aeration tanks, replace the existing surface aerators with fine bubble diffusers that will serve

to substantially reduce odors from this operation. Upon the completion of the capital improvements for nitrogen removal, the Company shall maintain a well-operated aeration basin, with sufficient dissolved oxygen, to minimize the potential for this operation to be a source of community odor complaints.

4. Review the characteristics of the System Influent to evaluate the potential for VOC emissions at the Plant.

3.2.2 Baseline Odor Survey and Comparison During Acceptance Testing

Before the new odor control systems (ICIs) are installed and started up, the Company will retain an independent odor control expert (Independent Odor Consultant) to make a "Baseline Odor Conditions" survey. The baseline survey will be conducted at specific locations, at the boundaries of the Plant Site. The survey will be conducted at least daily over a two-week period at locations surrounding the Plant Site. The following data will be collected and recorded twice a day at each point:

- Date/time
- Odor intensity (1 – Very Faint, 2 – Faint, 3 – Noticeable, 4 – Strong, 5 – Very Strong) in accordance with ASTM #544-75, 88 (modified)
- Distance from Plant (using hand-held GPS meter for exact coordinates)
- Wind direction
- Stability class
- Percent (%) Cloud cover
- Temperature
- Odor character
- Hydrogen sulfide concentration (ppb)
- Likely source (identify)

The proposed baseline survey will consist of sampling points along the full perimeter of the Plant Site. The Company will obtain complaint data, if any, from the Borough as a comparison to this baseline survey.

After the new odor control systems (ICIs) have been installed and undergone ICI Start-Up Testing, the Company, as part of ICI Acceptance Testing, will repeat the Baseline Odor Conditions survey. See Appendix 7 for a description of the ICI Acceptance Test Protocol.

The ICI Acceptance Test for Odor Control ICIs will be carried out over a 30-day period which will coincide with the integrated full system ICI Acceptance Test for all ICIs. The Independent Odor Consultant will perform this survey once during the first two (2) weeks of the 30-day ICI Acceptance Test. All other days during the 30-day ICI Acceptance Test, the Company's on-site personnel, accompanied by Borough representatives, will perform the survey. The Company shall maintain records of

system performance. All data will be submitted to the Borough to verify performance with the Odor Guarantee and Acceptance Testing of Odor Control ICIs.

3.2.3 Other Company Responsibilities

The Company shall also implement an odor control program at the Plant, including: monitoring H₂S air at the Plant daily; maintaining an odor complaint hot line (for local calls); and performing daily odor checks at historic or suspect locations of odor. An odor complaint form and a log book will be completed for discussion at the monthly Local Odor Panel meeting. In addition, the Company will maintain monitoring forms for the odor control scrubbers and prepare monthly reports to the Borough of Naugatuck.

3.2.4 Odor Scorecard and Performance Assessment

After ICI Acceptance of the odor control ICIs, the Company shall, on a monthly basis, undertake a performance assessment using the Odor Scorecard described below. The Odor Scorecard, which consists of three elements, will provide for the Company's payment to the Borough of liquidated damages for failure to meet the Odor Guarantee. Failure to comply with these elements will result in a maximum one thousand dollars (\$1,000.00) per month payment in liquidated damage. A perfect odor scorecard for odor control for the month will result in a zero (\$0) payment by the Company.

The three elements and their percentage contributions to the scorecard are: (1) Odor control systems on-line and monitoring results are complete (25% if odor survey conducted by Independent Odor Consultant (see number 3 below); 50% if odor survey not conducted); (2) Verified odor complaint from the WWTP per month (50%); and (3) Performance as reported by the Independent Odor Consultant survey supplied by the Company with approval of the Borough and Community (25% for a month in which the Independent Odor Consultant conducts a survey).

3.2.4.1 Odor Control Systems On-line (25% or 50%)

The WWTP improved odor control system, consisting of a Primary Settling Tanks Odor Control System as described in Appendix 2, will support or replace the existing odor controls. This system will be kept on line 24 hours per day, 7 days per week. The Company will develop daily and weekly monitoring forms, including operating and performance data on the wet scrubber and new scrubbing equipment, such as hydrogen sulfide outlet concentrations. Data and equipment run times will be submitted monthly.

Scheduled maintenance will not be considered as equipment downtime for the purpose of the Odor Scorecard provided the Borough is given at least 48-hours notice prior to shutdown, and the Company takes mitigative measures to insure

that the removal of the equipment from service does not contribute to odors from the Plant. If offsite odors are observed and found to be due to the scheduled equipment maintenance, such down time will be included in the Odor Scorecard.

The system will be scored in accordance with grades shown in Table 1. These grades are applicable if all monitoring forms are current. If monitoring forms are not acceptable, these grades will be reduced by 50%.

**TABLE 1
SCORECARD GRADES**

On-Line Time (%)	Grade
95-100%	100%
90-95%	90%
86-90%	75%
82-86%	50%
80-82%	0%

During months when the Independent Odor Consultant conducts a survey as described in Section 3.2.4.3 of this Appendix, the “Odor Control Systems On-line” score will be 25% of the total monthly scorecard. All other months it will be 50% of the total monthly scorecard.

3.2.4.2 Verified Odor Complaints (50%)

There can be no more than one *verified* odor complaint per month to achieve a grade of 100%. If two verified odor complaints are documented, the Company will earn a 50% grade. If three odor complaints are verified, then the Company will earn a zero for this category. The Company will have four hours from notification to correct the problem that caused the verified odor complaint before a second odor complaint could be counted. Each episode will count as only one odor complaint, even if several residents call to complain at the same time.

For these purposes, a documented odor complaint is one verified by the Company in accordance with the protocols established within this Appendix 16 as originating from the Managed Assets that the Company operates and has direct control over. The Company must respond to the complaint, meet with the complainant, investigate the problem and take action within four hours. Further, the Company will be notified immediately if any agency has received a complaint. If the complaint is received by any agency, it shall only be deemed to have been

received by the Company when actual notice of it is received. The Company will then respond to the complaint. If it is verified as a Managed Assets problem, the Company will have four hours from the time of notice of the complaint to correct the problem or be subject to the potential for a second odor complaint. A Company representative, accompanied by a representative that the Borough may opt to send, will survey the community after the Company has resolved the problem, to verify that the odor has been corrected. After correction, the Company will make a follow-up call to the complainant to ascertain that the problem odor has dissipated. The Company will then complete the complaint monitoring form, which will include:

- Name/address of complainant (resident information);
- Time of call;
- Time of odor incident and location of odor;
- Description of complaint and odor;
- Wind direction, speed and temperature;
- Direction and distance of complainant from WWTP;
- Results of investigation such as odor intensity, description of odor, and identifiable odor source;
- Corrective actions taken; and
- Odor survey performed by the Company (working back towards WWTP).

If one is not currently in use, the Company will install a weather station monitor at the Plant to monitor wind direction and speed.

3.2.4.3 Independent Odor Consultant (25% on months used)

The Company will retain an Independent Odor Consultant to survey the WWTP and adjacent community every six months for the first two years after the ICIs for odor control have been installed, acceptance tested and accepted. The Company will submit the qualifications of the Independent Odor Consultant and his proposed scope of services, which shall be in compliance with this Service Contract, to the Borough for review and approval before executing a retainer agreement or any substantial modification thereto. The Borough will not unreasonably withhold approval. The Borough may, at its option, retain an odor consultant either during or to continue at the same or a lesser survey frequency after the first two years, for the purpose of continuing this inspection element in the scoring. The first visit of the Independent Odor Consultant will occur after the control systems are installed. The consultant will develop a form to be completed during each visit, perform a WWTP and community odor survey, measure H₂S on

the WWTP site, check equipment, and award the Company a grade of 0-10 for odor control from the WWTP.

The Independent Odor Consultant will report and explain the grade so that the Company can correct any deficiency in the program. Controlled odor sources will be checked; if additional areas are causing detectable and objectionable off-site odors, this information will be included in the grade. On the months when the inspection is completed, this grade is counted as 25% of the total monthly scorecard.

The Independent Odor Consultant will also train the Local Odor Panel in the following:

- Treatment operations related to odor generation;
- Odor control systems operations; and
- Detection of odors and their evaluation.

The training program will begin before all improvements are made. It will be reviewed and completed after the odor control systems are on line.

3.2.4.4 Scorecard Completion and Payment of Liquidated Damages

The Company shall pay the Borough liquidated damages if the Company is deficient in implementing the Odor Control Plan. Liquidated damages will be paid in accordance with the Company's score on the monthly scorecard. The maximum liquidated damages that may be imposed shall be \$1,000 per month. An example calculation is provided below.

Penalty Calculation

The Company monthly odor liquidated damages =
\$1,000 – (\$1,000 X Odor score)

Odor Scorecard Examples

A. With Independent Odor Consultant

$$\text{Odor Score} = A + B + C$$

Where:

A = 25% x score for on-line systems and monitoring

B = 50% x score for verified odor complaints

C = 25% x score for Independent Odor Consultant

For example, if one month the odor control systems were on line 89% of the time, there was one (1) verified odor complaint, and the average score from the Independent Odor Consultant was 8.5 out of 10, that month's odor score would be calculated as follows:

$$\begin{aligned} A &= 25\% \times 0.75 &= &.1875 \\ B &= 50\% (1 \text{ complaint}) &= &.5 \\ C &= 25\% \times 8.5/10 &= &.2125 \end{aligned}$$

$$\text{Odor Score} = 0.1875 + 0.5 + 0.2125 = 0.9$$

The Company liquidated damages paid to the Borough would be \$100:

$$\$1,000 - (\$1,000 \times 0.9) = \$100$$

B. Without Independent Odor Consultant

$$\text{Odor Score} = A + B$$

Where:

A = 50% x score for on-line systems and monitoring

B = 50% x score for verified odor complaints

For example, if one month the odor control systems were on line 89% of the time, there was one (1) verified odor complaint, and no Independent Odor Consultant was utilized, that month's odor score would be calculated as follows:

$$\begin{aligned} A &= 50\% \times 0.75 &= &.375 \\ B &= 50\% (1 \text{ complaint}) &= &.5 \end{aligned}$$

$$\text{Odor Score} = 0.375 + 0.5 = 0.875$$

The Company liquidated damages paid to the Borough would be \$125:

$$\$1,000 - (\$1,000 \times 0.875) = \$125$$

APPENDIX 17
EXISTING CONTRACTS

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2.0 Supplies/Maintenance/Service Agreements 1

APPENDIX 17

EXISTING CONTRACTS

The following is a list of existing contracts which the Company shall administrator and perform in accordance with Section 4.7 of the Service Contract. The Company shall also administer and perform the Borough's wastewater treatment contracts with the Participating Entities which are attached to the Service Contract as Reference Documents

1.0 COMMUNITY SEPTAGE AGREEMENTS

The Borough provides treatment for Community Septage at no cost with the exception of Septage from Middlebury. Current Borough policy is to charge \$0.01 per gallon to treat Septage from Middlebury.

2.0 SUPPLIES/MAINTENANCE/SERVICE AGREEMENTS

<u>Vendor</u>	<u>Service / Commodity</u>	<u>Expiration</u>
Lonsdale Elevator	Elevator Service	12-01-00 ¹
Pitney Bowes	Fax Rental	11-16-02
PBCC	Postal Meter	3-01-02
Waste Management	Recycling	6-14-03
Waste Management	Solid Waste Disposal	6-14-03
Xerox	Copier Service	12-19-02
Guerrera	Trucking	3-week notice

1. Contract expired; continue on verbal basis

APPENDIX 18
APPROVED SUBCONTRACTORS

APPENDIX 18

APPROVED SUBCONTRACTORS

This Appendix sets forth the list of Subcontractors which the Borough has approved that the Company is permitted to engage for Contract Services relating to hauling of Community Septage. Additional Subcontractors may also be subsequently identified and used to perform the Contract Services, subject to the provisions of Section 16.5 of the Service Contract.

- Mahopac Sanitation Septic Inc., Mahopac, NY
- HL Bennett Jr., Inc., Southbury, CT
- Bob Marek & Sons, Bethany, CT
- Oxbury Sanitation, Oxford, CT
- Frank Talarico & Son, Inc., Southbury, CT
- S. William Koseski, Woodbridge, CT
- New England Septic, Oxford, CT
- East Coast Septic, Oxford, CT
- Country Septic Service, Bethany, CT
- Dunn Sanitation, Prospect, CT
- Newtown Septic Services, Inc., Oxford, CT
- Port-O-Let, Waterbury, CT
- Sani Jons, Middlebury, CT
- Superior Sanitation, Wolcott, CT
- Watertown Septic, Waterbury, CT
- Wolcott Sanitation, Wolcott, CT
- RJ Guerrero, Inc., Naugatuck, CT
- H.I. Stone & Son Trucking, Inc., Southbury, CT
- WeCare LLC, Weedsport, NY
- Onyx Environmental

APPENDIX 19
EXIT TRANSITION PLAN

APPENDIX 19

EXIT TRANSITION PLAN

At the end of the Service Contract, whether at its stated expiration or by earlier termination for whatever reason, the Company shall provide all services necessary for a smooth, uninterrupted transition of service to the Borough or its new contractor. The Company shall prepare a plan describing such services (the Exit Transition Plan) and provide such plan to the Borough within 60 days of the Contract Date. The Exit Transition Plan shall describe and outline, at a minimum, the following services and information:

- Weekly meetings with the Borough to discuss operations and maintenance activities at least three months prior to the termination date or as otherwise agreed to by the Borough;
- List of all documents developed by the Company during the Term of the Service Contract to perform the Management Services and provide electronic and hard copy of the latest version of the documents. These documents are to include the Operation and Maintenance Manual, SOPs, and emergency plans;
- List of all reports prepared by the Company and submitted to the Borough and regulatory agencies within the last five years and provide hardcopy of each. These reports include Monthly Operating Reports, Annual Reports, Discharge Monitoring Reports and Annual Sludge Reports;
- List and original copy of all laboratory records, including raw data, bench sheets, and log books maintained by the Company throughout the Term of the Service Contract;
- List of equipment vendors, warranty information and vendor manuals. Provide copy of vendor manuals and vendor training materials;
- List of utility service providers;
- List and copy of Governmental Approvals;
- Electronic and hard copy of as-built drawings;
- Inventory of Consumables and spare parts;
- Asset valuation and report of same;

- List of software and the transfer of electronic database and where legally allowable, the transfer of software licenses;
- Transfer of vehicles, if any, to the Borough;
- List and status of all suppliers, maintenance, and service contracts; and
- List of employees and personnel files of those who elect employment by the Borough or a new contractor.

The Exit Transition Plan shall be updated periodically to reflect changes in any of the services and information.

APPENDIX 20
COMMUNITY SEPTAGE PROTOCOL

APPENDIX 20

COMMUNITY SEPTAGE PROTOCOL

Community Septage received at the Plant, via truck, for treatment shall be discharged into the septage receiving station or, with the approval of the Company, may be discharged to the headworks of the Plant.

The Plant Site is accessible by Cherry Street Extension and by Elm Street. Cherry Street provides access for cars, a limited number of septage pumper trucks, and truck deliveries of materials and supplies. Cherry Street runs through a residential neighborhood. Elm Street provides access for most all truck deliveries (including septage pumper trucks) through CMCI property. Elm Street traverses a commercial and industrial area.

Unless otherwise directed or access is denied, deliveries of Community Septage shall access the Plant Site via Elm Street and the Access Road (across CMCI property) or via the Cherry Street Extension in the case of the smaller septage vehicles (i.e. <2500 gallons). If access is not possible through the Access Road, access shall be obtained after Borough notification through alternate access (Elm Street to Spencer Street to the Cherry Street Extension) as described in Section 5.20(C) of the Service Contract. See Attachment 2 for a map depicting access routes.

Community Septage shall only be accepted for disposal with the following: (1) the prior approval of the Borough; (2) a consummated agreement with either the generator or transporter of the Community Septage and the Company, which agreement shall be in a form approved by the Borough and shall meet the minimum requirements specified in this appendix; and (3) the ability of the Company to demonstrate that the Community Septage can be accepted in accordance with all regulatory requirements and approvals, including DEP requirements.

Contracts for acceptance and treatment of Community Septage shall contain appropriate provisions: (1) establishing Acceptance Criteria for the Community Septage; (2) requiring that the haulers warrant that Community Septage delivered to the Managed Assets complies with the Acceptance Criteria; (3) requiring that haulers advise the Company of any changes in the process of generating the Community Septage that may affect the characteristics of such Community Septage; (4) providing for rejection of Community Septage that does not conform with the Acceptance Criteria, and imposing on haulers responsibility for transportation, treatment and disposal of such rejected Community Septage; and (5) requiring haulers to indemnify the Company and the Borough from all Loss-and-Expense arising out of the delivery or attempted delivery of Community Septage that does not comply with the Acceptance Criteria. Community Septage shall be screened by the Company using the Standard Operating Procedures for the Acceptance of Community Septage (Attachment 1 to this Appendix 20) which provides the requirements

and procedures by which Community Septage will be afforded acceptance at the Plant. This protocol includes minimum Acceptance Criteria.

The Company shall use all commercially reasonable efforts to ensure that Community Septage is accepted and treated in such a manner that:

- Operation of the Plant is not adversely impacted;
- The ability to maintain compliance with all regulatory permits is not adversely impacted;
- The ability to achieve compliance with current or future discharge limits is not jeopardized;
- The receipt of Community Septage does not result in odor complaints;
- The receipt of Community Septage is in full compliance with all Applicable Law; and

The Company shall have the right to refuse acceptance of any load of Community Septage not in conformance with the above requirements, based on the criteria agreed upon in advance by the Company (with the Borough's approval) and the generator or transporter.

The Company shall be responsible for ensuring that all required sampling, testing and reporting of Community Septage is carried out in accordance with applicable State regulations and procedures and as necessary to ensure that operation of the Managed Assets is not adversely effected by the acceptance of Community Septage. In this effort, the Company shall develop a screening protocol that, at a minimum, will meet the requirements detailed in Attachment 1 to this Appendix 20. The Company's protocol shall be submitted to the Borough for approval prior to the receipt of any Community Septage.

The Company shall maintain complete records of all Community Septage sampling and testing as required by Applicable Law. If the Company elects to allow the generator or transporter of Community Septage to perform the required sampling and testing, the Company shall ensure that such records are received prior to the off-loading of the Community Septage. These records provided to the Company shall be certified by the generator or transporter by affidavit, signed under penalty of perjury. If necessary, the Company shall perform any sampling and analysis required immediately prior to authorized off-loading to supplement testing by generators and haulers.

The Company shall remit all "cash and carry" payments received for Community Septage from the Town of Middlebury to the Borough along with required records associated with the receipt of Community Septage. These records shall include, but shall not be limited to the following:

- type of material
- volumes of materials received
- date of receipt
- hauler
- generator
- locale of generator (e.g., Naugatuck, Middlebury, etc.)
- contract reference, if applicable (e.g., Middlebury Inter-Municipal Agreement)
- analysis and testing results

The Company shall be responsible for all matters relating to customer billing associated with the receipt of Community Septage from the Town of Middlebury including issuing and tracking invoices and debt collection.

ATTACHMENT 1

**STANDARD OPERATING PROCEDURES FOR THE
ACCEPTANCE OF COMMUNITY SEPTAGE**

STANDARD OPERATING PROCEDURES FOR THE ACCEPTANCE OF COMMUNITY SEPTAGE

All existing Community Septage haulers shall be allowed to make septage deliveries to the Plant in accordance with the procedures detailed in this Attachment 1.

Notwithstanding the provisions described in this attachment, the Company shall comply with the DEP requirements for the monitoring and sampling of Community Septage.

I Approval Procedures

1. Beginning within sixty (60) days of the Commencement Date, the Company shall submit a list of the Community Septage haulers to the Borough for approval. In all cases involving approval of Community Septage haulers, the Borough's approval shall not be unreasonably withheld. If the Borough does not respond within seven (7) business days, this list will be deemed accepted.
2. Within thirty (30) days of the start of each new Contract Year, the Company will update this list. If the Borough does not respond within seven (7) business days, this list shall be deemed accepted.
3. New Community Septage haulers will make application to the Company for disposal of Community Septage at the WWTP. The Company shall provide copies of all applications to the Borough. If the Borough does not respond within seven (7) business days, this list shall be deemed accepted.
4. Community Septage applications for haulers shall include the following information:
 - Business information
 - Vehicle information and registration
 - Signed CMCI Vehicle Access Agreement
 - Insurance certification
 - Customer references
 - Customer service area description (e.g. Participating Entity)

II Reporting and Sampling Procedures

1. Sampling
 - a. The Community Septage hauler will be required to take a representative sample of septage or wastewater prior to off loading. The hauler shall deliver the sample to a Company representative.

- b. The sample must be clearly labeled with the hauler's name, date and corresponding disposal form number.
- c. The sample will tested and examined for the following parameters:
 - pH
 - unusual odor
 - visible grease
- d. The Company will, on a spot basis, perform the following additional tests:
 - COD
 - Total Solids

2. Records

- a. The hauler will fill out a disposal form for each location in which the septage or wastewater, that comprises the load, was collected.
- b. The form will include the following information
 - name of hauling company
 - date
 - approximate volume
 - location (town) septage load generated
 - septage customer information (i.e. name, address, telephone number)
- c. The Company shall keep a copy of the disposal form for its records. The Company will provide the hauler sampling information for inclusion in the form.
- d. The Company will provide a summary report concerning the septage received to Borough on a monthly basis along with the other monthly operations reports.

III Delivery Procedures

- 1. All Septage must be delivered by a fully licensed hauler. Community Septage haulers must be pre-approved by USFOS Naugatuck. USFOS Naugatuck shall waive the 30-day requirement for application review for existing Community Septage haulers. USFOS Naugatuck may waive the 30-day requirement for application review for other haulers at its discretion. USFOS Naugatuck may, at its own discretion, suspend or terminate acceptance of any septage hauler as laid out in contract stipulations.
- 2. Community Septage haulers will be required to make their own connections to USFOS Naugatuck equipment. They are responsible for their own equipment at all times. Haulers are required to immediately report to USFOS any traffic problem or accident that occurs on USFOS Naugatuck property and/or CMCI property.

3. In any circumstance of a spill, haulers shall contact a USFOS employee immediately. USFOS Naugatuck will provide appropriate emergency contact procedures at the Plant. The Community Septage hauler shall take immediate action to contain any spilled materials, and thereafter complete any required cleanup and decontamination procedures.
4. All Community Septage haulers are required to utilize trash facilities provided by USFOS Naugatuck and shall not leave any litter, debris or solid waste at the site.
5. Haulers who violate any of the requirements of this protocol may have their disposal privileges suspended or revoked.
6. When accessing the site through CMCI property, Community Septage haulers must comply fully with the requirements of the Discharge and Access Agreement at all times.

ATTACHMENT 2

ACCESS MAP

Source CMCI Discharge and Access Agreement and modified
by ARI 8-8-01

[ACCESS MAP IS NOT AVAILABLE ELECTRONICALLY.]

APPENDIX 21

EXAMPLE SERVICE FEE AND OTHER PAYMENT CALCULATIONS

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APPENDIX 21

EXAMPLE SERVICE FEE AND OTHER PAYMENT CALCULATIONS

1.0 SERVICE FEE CALCULATIONS

The Service Fee shall be calculated pursuant to Article XII of the Service Contract and in accordance with the following formula.

1.1 Service Fee Formula

$$\text{ASF} = \text{BF} + \text{RC} \pm \text{EI}$$

Where,

ASF	=	Annual Service Fee
BF	=	Base Fee
RC	=	Reimbursable Costs
EI	=	Extraordinary Items

The Base Fee shall be calculated in accordance with the following formula:

$$\begin{aligned} \text{BF} &= \text{FC} + \text{VC} \\ \text{VC} &= \text{FLAE} + \text{NRE} \end{aligned}$$

Where,

BF	=	Base Fee
FC	=	Fixed Component
VC	=	Variable Component
FLAE	=	Flows and Loadings Adjustment Element
NRE	=	Nitrogen Removal Element

For the purposes of the example calculations provided in this Appendix 21, and pursuant to Section 12.11 of the Service Contract, it is assumed that Reimbursable Costs and Extraordinary Items, if incurred by the Company and subject to recovery by the Company from the Borough, would generally not be deemed under Internal Revenue Service Revenue Procedure 97-13 to be "compensation for services" to the Company and, therefore, would not be included in the Fixed Component of the Company's Base Fee. In the event that, with respect to any particular actual instance of Reimbursable Costs or Extraordinary Items being incurred by the Company, such were deemed to be "compensation for services" under said Revenue Procedure, such Reimbursable Costs or Extraordinary Items would be included in the Fixed Component of the Company's Base Fee for the purposes of calculating compliance with said Revenue Procedure pursuant to Section 12.11 of the Service Contract.

1.2 Example Service Fee Calculations

1.2.1 Example Calculation 1: Annual Service Fee for Contract Year 1 (ASF_{YR1})

Example Calculation 1 illustrates the standard Service Fee calculation.

Assumptions, Inputs and Supporting Calculations

Commencement Date = January 1, 2002

Contract Year 1 = January 1, 2002 through June 30, 2002

FC = Element A + Element B

Element A_{YR1} = \$2,303,000 prorated for six months = $(\$2,303,000)(6/12) = \$1,151,500$

Element B_{YR1} = \$211,600 prorated for six months = $(\$211,600)(6/12) = \$105,800$

Assume EI_{YR1} = \$10,000

The Variable Component (VC) of the Base Fee is not applicable in Contract Year 1

Reimbursable Costs (RC) are not applicable in Contract Year 1

Annual Service Fee Calculation

$ASF_{YR1} = FC \pm EI = (\text{Element } A_{YR1} + \text{Element } B_{YR1}) \pm EI_{YR1}$

$ASF_{YR1} = \$1,151,500 + \$105,800 + \$10,000 = \$1,267,300$

1.2.2 Example Calculation 2: Annual Service Fee for Contract Year 2 (ASF_{YR2})

Example Calculation 2 illustrates the Service Fee calculation with the application of the Adjustment Factor.

Assumptions, Inputs and Supporting Calculations

Contract Year 2 = July 1, 2002 through June 30, 2003

Assume CPI_{JUL 2001} = 100

Assume CPI_{JUN 2002} = 104

$AF_{YR2} = \text{Adjustment Factor for Contract Year 2} = 1 + ((CPI_{JUN 2002} - CPI_{JUL 2001}) / CPI_{JUL 2001})$

$AF_{YR2} = 1 + ((104-100)/100) = 1.040$

FC = Element A + Element B

Element A_{YR1} = \$2,303,000

$$\text{Element } A_{YR2} = (\text{Element } A_{YR1})(AF_{YR2}) = (\$2,303,000)(1.040) = \$2,395,120$$

$$\text{Element } B_{YR2} = \$211,600 \text{ (not subject to escalation)}$$

RC = DEP-Mandated Collection System Work

$$\text{Maximum Reimbursable } RC_{YR2} = \$81,500$$

$$\text{Assume Reimbursable } RC_{YR2} = \$81,500$$

$$\text{Assume } EI_{YR2} = \$10,000$$

The Variable Component (VC) of the Base Fee is not applicable in Contract Year 2

Annual Service Fee Calculation

$$ASF_{YR2} = FC + RC \pm EI = (\text{Element } A_{YR2} + \text{Element } B_{YR2}) + RC_{YR2} \pm EI_{YR2}$$

$$ASF_{YR2} = \$2,395,120 + \$211,600 + \$81,500 + \$10,000 = \$2,698,220$$

1.2.3 Example Calculation 3: Annual Service Fee for Contract Year 7 (ASF_{YR7})

Example Calculation 3 illustrates the Service Fee calculation with the inclusion of the Variable Component of the Base Fee, under the condition where the Fixed Component is greater than or equal to 80 percent of the Company's compensation for such services.

Assumptions, Inputs and Supporting Calculations

Contract Year 7 = July 1, 2007 through June 30, 2008

$$\text{Assume } CPI_{JUL\ 2006} = 115$$

$$\text{Assume } CPI_{JUN\ 2007} = 120$$

$$AF_{YR7} = 1 + ((CPI_{JUN\ 2007} - CPI_{JUL\ 2006}) / CPI_{JUL\ 2006}) = 1 + ((120 - 115)/115) = 1.043$$

FC = Element A + Element B

$$\text{Assume Element } A_{YR6} = \$2,700,000$$

$$\text{Element } A_{YR7} = (\text{Element } A_{YR6})(AF_{YR7}) = (\$2,700,000)(1.043) = \$2,816,100$$

$$\text{Element } B_{YR7} = \$270,800 \text{ (not subject to escalation)}$$

RC = DEP-Mandated Collection System Work

$$\text{Assume Maximum Reimbursable } RC_{YR6} = \$92,000$$

$$\begin{aligned} \text{Maximum Reimbursable } RC_{YR7} &= (\text{Maximum Reimbursable } RC_{YR6})(AF_{YR7}) = \\ &(\$92,000)(1.043) = \$95,956 \end{aligned}$$

$$\text{Assume Reimbursable } RC_{YR7} = \$95,956$$

$$\text{Assume } EI_{YR7} = (\$10,000)$$

Assume $NRE_{YR7} = \$0$

Determine $FLAE_{YR7}$

Assume Flow Above Upper Threshold = 100,000,000 gallons

Assume BOD_5 Load Above Upper Threshold = 100,000 pounds

Assume TSS Load Above Upper Threshold = 100,000 pounds

Calculate Flows and Loadings Adjustment rates by multiplying Contract Year 6 rates by the Adjustment Factor for Contract Year 7:

	Assumed Upper Threshold Rate for Contract Year 6	Calculated Upper Threshold Rate for Contract Year 7
Flow (per gallon)	\$0.00030	$(\$0.00030)(1.043) = \0.00031
BOD_5 Load (per pound)	\$0.160	$(\$0.160)(1.043) = \0.167
TSS Load (per pound)	\$0.190	$(\$0.190)(1.043) = \0.198

$$FLAE_{YR7} = (100,000,000 \text{ gallons})(\$0.00031/\text{gallon}) + (100,000 \text{ lbs}) (\$0.167/\text{lb}) + (100,000 \text{ lbs})(\$0.198/\text{lb}) = \$67,500$$

Annual Service Fee Calculation

$$ASF_{YR7} = FC + VC + RC \pm EI$$

$$= (\text{Element } A_{YR7} + \text{Element } B_{YR7}) + (FLAE_{YR7} + NRE_{YR7}) + RC_{YR7} \pm EI_{YR7}$$

$$ASF_{YR7} = \$2,816,100 + \$270,800 + \$67,500 + \$0 + \$95,956 - \$10,000$$

$$ASF_{YR7} = \$3,240,356$$

Verify $FC > 80$ percent of Company's compensation

$$\text{Company's compensation} = FC + VC = \$3,154,400$$

$$FC = \$3,086,900$$

$$((\$3,086,900)/(\$3,154,400))100 = 97.9\% \text{ (OK)}$$

1.2.4 Example Calculation 4: Annual Service Fee for Contract Year 10 (ASF_{YR10})

Example Calculation 4 illustrates the Service Fee calculation with the inclusion of the Variable Component of the Base Fee, under the condition where the Fixed Component is less than 80 percent of the Company's compensation for such services.

Assumptions, Inputs and Supporting Calculations

Contract Year 10 = July 1, 2010 through June 30, 2011

Assume CPI_{JUL 2009} = 135

Assume CPI_{JUN 2010} = 140

$AF_{YR10} = 1 + ((CPI_{JUN 2010} - CPI_{JUL 2009}) / CPI_{JUL 2009}) = 1 + ((140 - 135)/135) = 1.037$

FC = Element A + Element B

Assume Element A_{YR9} = \$3,200,000

Element A_{YR10} = (Element A_{YR9})(AF_{YR10}) = (\$3,200,000)(1.037) = \$3,318,400

Element B_{YR10} = \$330,000 (not subject to escalation)

RC = DEP-Mandated Collection System Work

Assume Maximum Reimbursable RC_{YR9} = \$100,000

Maximum Reimbursable RC_{YR10} = (Maximum Reimbursable RC_{YR9})(AF_{YR10}) =
(\$100,000)(1.037) = \$103,700

Assume Reimbursable RC_{YR10} = \$103,700

Assume EI_{YR10} = \$100,000

Assume NRE_{YR10} = \$400,000

Determine FLAE_{YR10}

Assume Flow Above Upper Threshold = 800,000,000 gallons

Assume BOD₅ Load Above Upper Threshold = 800,000 pounds

Assume TSS Load Above Upper Threshold = 800,000 pounds

Calculate Flows and Loadings Adjustment rates by multiplying Contract Year 9 rates by the Adjustment Factor for Contract Year 10:

	Assumed Upper Threshold Rate for Contract Year 9	Calculated Upper Threshold Rate for Contract Year 10
Flow (per gallon)	\$0.00035	$(\$0.00035)(1.037) = \0.00036
BOD ₅ Load (per pound)	\$0.190	$(\$0.190)(1.037) = \0.197
TSS Load (per pound)	\$0.210	$(\$0.210)(1.037) = \0.218

$$FLAE_{YR10} = (800,000,000 \text{ gallons})(\$0.00036/\text{gallon}) + (800,000 \text{ lbs}) (\$0.197/\text{lb}) + (800,000 \text{ lbs})(\$0.218/\text{lb}) = \$620,000$$

Annual Service Fee Calculation

$$ASF_{YR10} = FC + VC + RC \pm EI$$

$$ASF_{YR10} = (\text{Element } A_{YR10} + \text{Element } B_{YR10}) + (FLAE_{YR10} + NRE_{YR10}) + RC_{YR10} \pm EI_{YR10}$$

$$ASF_{YR10} = \$3,318,400 + \$330,000 + \$620,000 + \$400,000 + \$103,700 + \$100,000$$

$$ASF_{YR6} = \$4,872,100$$

Verify $FC > 80$ percent of Company's compensation

$$\text{Company's compensation} = FC + VC = \$4,668,400$$

$$FC = \$3,648,400$$

$$((\$3,648,400)/(\$4,668,400))100 = 78.1\% \text{ (Not OK)}$$

Determine reduction such that $FC > 80$ percent of Company's compensation

$$\text{Maximum Compensation}_{YR10} = FC_{YR10} / (0.80) = (\$3,648,400) / (0.80) = \$4,560,500$$

$$\text{Reduction} = \text{Actual Compensation}_{YR10} - \text{Maximum Compensation}_{YR10}$$

$$\text{Reduction} = \$4,668,400 - \$4,560,500 = \$107,900$$

Recalculate ASF_{YR10}

$$ASF_{YR10} = \$4,872,100 - \$107,900 = \$4,764,200 \text{ with a carryover of } \$107,900$$

2.0 COLLECTION SYSTEM FEE CALCULATIONS

The Collection System Fee for the Contract Year beginning on July 01, 2002 shall be \$226,453. The amount for any subsequent Contract Year shall be determined by multiplying (a) the Collection System Fee for the previous Contract Year, times (b) the Adjustment Factor.

APPENDIX 22

EXAMPLE CONVENIENCE TERMINATION FEE CALCULATIONS

APPENDIX 22

EXAMPLE CONVENIENCE TERMINATION FEE CALCULATIONS

1.0 CONVENIENCE TERMINATION FEE FORMULA

If the Borough exercises its right to terminate the Service Contract pursuant to Section 13.5 of the Service Contract, the Borough shall pay a convenience termination fee equal to the sum of (1) \$3,000,000 reduced by 1/240 of such amount for each month that has elapsed following the Commencement Date to and including the month in which the Termination Date occurs, provided however, that in the event of a “dramatic market change” as defined in the Lease Agreement the applicable amount shall be the lesser of \$250,000 or the amount computed hereunder; plus (2) if the Company has provided financing for any Capital Modifications pursuant to Article XI of the Service Contract, the unamortized value thereof based on the financing methodology approved by the Borough at the time the financing was effectuated.

2.0 EXAMPLE CONVENIENCE TERMINATION FEE CALCULATIONS

2.1 Convenience Termination Fee Without Dramatic Market Change

A. Assumptions:

Commencement Date: July 01, 2003

Termination Date: December 01, 2012 (Month 113)

Termination Fee Calculation:

$\$3,000,000 - (\$3,000,000 \times (113/240)) = \$1,587,500$

B. Assumptions:

Commencement Date: July 01, 2003

Termination Date: December 01, 2020 (Month 209)

Termination Fee Calculation:

$\$3,000,000 - (\$3,000,000 \times (209/240)) = \$387,500$

2.2 Convenience Termination Fee With Dramatic Market Change

A. Assumptions:

Commencement Date: July 01, 2003

Termination Date: December 01, 2020 (Month 209)

Termination Fee Calculation:

$$\$3,000,000 - (\$3,000,000 \times (209/240)) = \$387,500$$

however, in the event of a “dramatic market change”, the applicable amount shall be the lesser of \$250,000 or the amount computed hereunder, therefore, the Termination Fee is equal to \$250,000.

APPENDIX 23
EXAMPLE PRIVATE FINANCING PLAN

APPENDIX 23

EXAMPLE PRIVATE FINANCING PLAN

Pursuant to Section 11.7(C) of the Service Contract, the Borough may request the Company to provide financing for all or a portion of any Capital Modification which the Company is implementing pursuant to Article XI. The parties agree that in addition to the requirements of Section 11.7(C), the following Example Private Financing Plan is the preferred approach to any Company financing. The parties recognize, however, that this Example Private Financing Plan shall not be binding on either party as there may be more appropriate means of achieving the particular financing at the time thereof. Factors that may influence a particular Company financing include the magnitude of the proposed capital costs to be financed, the then-applicable market conditions and the financial capacity of the Company. Further, the ultimate terms and conditions of a Company financing are at all times subject to the requirements that may be imposed on the parties by lenders and their counsel. The Service Contract shall be amended, as necessary, to effectuate the Company's financing including, without limitation, the addition of provisions pertaining to the reasonable lender cure rights or the Capital Recovery Charge.

1. Within sixty (60) days of becoming responsible for the financing of the Capital Modifications, the Company shall prepare an estimated Statement of Sources and Uses of Funds, which shall represent how the Capital Modifications will be financed, and how the funds will be used.

The Company may offer to fund a portion of the Capital Modifications cost with an equity contribution or other internal source of funds ("the Company Funds"). In such offer, the Company shall identify the rate of return expected by the Company as its charge for the use of the Company Funds. The Company shall fund the remaining of the funds required or all of the required funding through the issuance of some form of debt or lease purchase issued by the Company or with the Company acting as a conduit for such financing (the "Debt").

The Company will also prepare an estimated construction draw, a financing schedule and a funding plan. The construction draw will present the Company's estimated need for funds as implementation of the Capital Modifications proceed. The financing schedule will indicate when the Company expects to deliver the proceeds of the funding sources required, including key milestones related to the delivery of Debt proceeds. The funding plan will indicate how the Company will meet the funding needs of the Capital Modifications prior to Debt proceeds being available. The Borough has the right to review and approve the construction draw, financing schedule, and funding plan.

2. When the Debt is issued, a revised Statement of Sources and Uses of Funds shall be prepared. The Debt issued shall fund all remaining unfunded Uses of Funds, net of the available Company Funds, if any.
3. The Debt issued will fund all or a portion of the costs of the Capital Modifications. In addition, the Debt issued may fund (1) all or a portion of a Debt Service Reserve Fund (the "Debt Service Reserve Fund"), and (2) all Issuance Costs (the "Issuance Costs") associated with the Debt issuance, or the maximum amount allowed for such purposes in accordance with the Internal Revenue Code, if applicable.

The Company Funds, if any, shall fund all remaining costs. If the Company Funds are not to be included in the financing, then the Debt must fund the entire financing needs of the Capital Modifications.

4. The Uses of Funds shall be as follows:
 - The cost of the Capital Modifications;
 - The reasonable Issuance Costs as incurred by the Company, and determined by and consistent with market conditions at the time of financing, and in accordance with Section 3 of this plan;
 - The Debt Service Reserve Fund, the need for which shall be determined by the Borough and the Company, and in accordance with Section 3 of this plan; and
 - Any additional funding requested by the Borough.
5. Within ninety (90) days after the Company becomes responsible for the financing, the Company will establish a Capital Modifications Construction Account (the "Construction Account") into which will be deposited all funds available for the Capital Modifications construction, except the funds funding the Debt Service Reserve Fund, which funds shall be kept in a separate account as required by the terms of the Debt issued. The Company shall maintain a record of all deposits into the Construction Account. All investment earnings for the Construction Account shall be used towards project costs when sizing the Debt issuance.

The Company shall deposit the Company Funds, if any, into the Construction Account in accordance with a schedule agreed to by the Company and the Borough, consistent with the Statement of Sources and Uses of Funds. If available, the Company Funds will be used to pay the Capital Modification costs prior to the delivery of funds from the issuance of the Debt.

6. At the delivery of the Debt, the Company Funds, if any, shall be used to fund related financing expenses for which tax-exempt funds cannot be used. Thereafter, the proceeds of the Debt and the Company Funds will be used to pay the cost of the Capital Modifications in accordance with a schedule agreed to by the Company and the Borough.
7. If, at the time the Debt is to be issued, the par amount of a tax-exempt Debt issuance is less than the remaining Uses of Funds, then the Company shall apply the Company Funds or obtain additional financing to fund the remaining need for funds in a manner acceptable to the Borough.
8. If the Company is not able to receive, or does not receive, volume capacity allocation from the State of Connecticut to issue tax-exempt Debt ("Private Activity Bonds") within one hundred twenty (120) days after becoming responsible for financing the Capital Modifications, then the Borough may direct the Company to:
 - Issue taxable debt;
 - Issue taxable debt with the intent of refunding the debt with tax-exempt debt within two years of the issue date;
 - Utilize short-term taxable debt until the Private Activity Bond allocation is received;
 - Obtain the financing required through some alternative means acceptable to the Borough; or
 - Continue to request Private Activity Bond allocation from the State of Connecticut.
9. The allowed return on the Company Funds shall be agreed upon by the Borough and the Company. The Company shall provide the Borough with a schedule of annual amortization of the Company Funds, the Borough's proportionate share of which shall be determined at the time of such financing. The Borough's share of annual amortization of the Company Funds shall be part of a Capital Recovery Charge, a charge to the Borough in addition to the annual Service Fee. Such Capital Recovery Charge shall reflect the allowed rate of return. If the Service Contract is terminated in accordance with Article XIII of the Service Contract, the Company shall be paid the amount of the unamortized Company Funds as provided by Article XIII of the Service Contract.
10. The structure of the Debt issued shall be as approved by the Borough. Such structuring features shall include, but not be limited to:
 - The term of the Debt;
 - The amortization schedule for principal payments and/or sinking fund payments;

- The calculation of interest;
- The funding of appropriate reserves;
- The use of credit enhancement;
- The capitalization of interest expense incurred during construction, if any;
- Coverage requirements;
- Additional bonds tests;
- Call provisions and optional redemption provisions; and
- Default provisions.

The Borough has the right to approve the form of loan documents, including the indenture and loan agreement, which approval will not be unreasonably withheld.

The Borough shall be able to attend the pricing of the Debt or the negotiations associated with determining the interest rate for the Debt, and shall be able to reject any proposed interest rate. As provided in this Section 12 of this plan, the interest rate for such Debt shall be as mutually agreed upon between the Company and the Borough.

11. If there is a Debt Service Reserve Fund, the investment earnings associated with the investment of such shall be credited to the Borough. In the final year of Debt amortization, the amount of the Debt Service Reserve Fund no longer required shall be credited to the Borough or, if the Debt is fully amortized, shall be refunded to the Borough.

If there is a Debt Service Reserve Fund, or some comparable fund into which funds to pay debt service are deposited prior to when payable, the investment earnings associated with the investment of such shall be credited to the Borough.

12. The interest rate of the Debt issued will be determined at the time of completion of the permanent financing, and shall be as mutually agreed upon between the Company and the Borough. The Company shall provide the Borough with a schedule of annual amortization of the Debt, the Borough's share of which shall be calculated in accordance with Section 9 of this plan. The Borough's share of annual amortization of the Debt shall be part of a Capital Recovery Charge, a charge to the Borough in addition to the annual Service Fee described in Article XII of the Service Contract.
13. If long-term interest rates decline materially from the original interest rate on the Debt and material savings in financing costs can be achieved, the Company shall refinance the Capital Modifications at the direction of the Borough as provided in Section 11.7(C) of the Service Contract. Any resulting savings, net of transaction costs, shall be shared equally between the Borough and the Company.

14. If, under the terms of the Debt issued, an event of default occurs, the Company shall immediately notify the Borough of such event. If the Company does not take appropriate action to remedy the event of default to the satisfaction of the Borough, then the Borough may remedy the default and reduce the Capital Recovery Charge accordingly. If the event of default is due to the nonpayment of debt service or due to any unremedied deficiency of funds, the Borough shall have the right to pay that portion of the Capital Recovery Charge that defrays the cost of debt service directly to the Trustee or Paying Agent.

15. If the Borough requests the Company to finance only a portion of the Capital Modifications, then the Company shall prepare a financing plan for such portion, consistent with the provisions of this plan.