

MUNICIPAL NPDES PERMIT

Issued to

Permittee:

City of Stamford
111 Harbor View Avenue
Stamford, Connecticut 06902

Location Address:

City of Stamford WPCF
111 Harbor View Avenue
Stamford , Connecticut 06902

Facility ID: 135-001**Permit ID:** CT0101087**Permit Expires:** **DRAFT****Receiving Stream:** Stamford Harbor**Design Flow Rate:** 24 MGD**SECTION 1: GENERAL PROVISIONS**

- (A) This permit is reissued in accordance with Section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and Section 402(b) of the Clean Water Act, as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer a N.P.D.E.S. permit program.
- (B) The City of Stamford ("permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to Section 22a-430 of the CGS and are hereby incorporated into this permit. **Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) of Section 22a-430-3.** To the extent this permit imposes conditions more stringent than those found in the regulations, this permit shall apply.

Section 22a-430-3 General Conditions

- (a) Definitions
- (b) General
- (c) Inspection and Entry
- (d) Effect of a Permit
- (e) Duty to Comply
- (f) Proper Operation and Maintenance
- (g) Sludge Disposal
- (h) Duty to Mitigate
- (i) Facility Modifications; Notification
- (j) Monitoring, Records and Reporting Requirements
- (k) Bypass
- (l) Conditions Applicable to POTWs
- (m) Effluent Limitation Violations
- (n) Enforcement
- (o) Resource Conservation
- (p) Spill Prevention and Control
- (q) Instrumentation, Alarms, Flow Recorders
- (r) Equalization

Section 22a-430-4 Procedures and Criteria

- (a) Duty to Apply
- (b) Duty to Reapply
- (c) Application Requirements
- (d) Preliminary Review

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- (e) Tentative Determination
- (f) Draft Permits, Fact Sheets
- (g) Public Notice, Notice of Hearing
- (h) Public Comments
- (i) Final Determination
- (j) Public Hearings
- (k) Submission of Plans and Specifications. Approval.
- (l) Establishing Effluent Limitations and Conditions
- (m) Case-by-Case Determinations
- (n) Permit Issuance or Renewal
- (o) Permit or Application Transfer
- (p) Permit Revocation, Denial or Modification
- (q) Variances
- (r) Secondary Treatment Requirements
- (s) Treatment Requirements
- (t) Discharges to POTWs - Prohibitions

- (C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.
- (D) Any false statement in any information submitted pursuant to this Section of the permit may be punishable as a criminal offense under Section 22a-438 or 22a-131a of the CGS or in accordance with Section 22a-6, under Section 53a-157b of the CGS.
- (E) The permittee shall comply with Section 22a-416-1 through Section 22a-416-10 of the RCSA concerning operator certification.
- (F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the permittee pursuant to this permit will result in compliance or prevent or abate pollution.
- (G) Nothing in this permit shall relieve the permittee of other obligations under applicable federal, state and local law.
- (H) An annual fee shall be paid for each year this permit is in effect as set forth in Section 22a-430-7 of the RCSA. As of October 1, 2009 the annual fee is \$ **3,320.00**.
- (I) The permittee shall discharge so as not to violate the Interstate Environmental Commission (IEC) Water Quality Regulations promulgated pursuant to the authority conferred upon the IEC by the Tri-State Compact (CGS 22a-294 et seq.) as defined in Attachment 1 Table A.
- (J) This permitted discharge is consistent with the applicable goals and policies of the Connecticut Coastal Management Act (Section 22a-92 of the CGS)

SECTION 2: DEFINITIONS

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in Section 22a-423 of the CGS and Section 22a-430-3(a) and 22a-430-6 of the RCSA, except for "Composite" and "No Observable Acute Effect Level (NOAEL)" which are redefined below.
- (B) In addition to the above, the following definitions shall apply to this permit:
 - "-----" in the limits column on the monitoring tables in Attachment 1 means a limit is not specified but a value must be reported on the DMR, MOR, and/or the ATMR.
 - "**Annual**" in the context of any sampling frequency, shall mean the sample must be collected in the months of July, August or September of each year.
 - "**Average Monthly Limit**" means the maximum allowable "Average Monthly Concentration" as defined in Section 22a-430-3(a) of the RCSA when expressed as a concentration (e.g. mg/l); otherwise, it means "Average Monthly Discharge Limitation" as defined in Section 22a-430-3(a) of the RCSA.

"Bi-Monthly" in the context of any sampling frequency, shall mean once every two months including the months of January, March, May, July, September and November.

"Bi-Weekly" in the context of any sampling frequency, shall mean once every two weeks.

"Composite" or **"(C)"** means a sample consisting of a minimum of eight aliquot samples collected at equal intervals of no less than 30 minutes and no more than 60 minutes and combined proportionally to flow over the sampling period provided that during the sampling period the peak hourly flow is experienced.

"Critical Test Concentration" or **"(CTC)"** means the specified effluent dilution at which the permittee is to conduct a single-concentration Aquatic Toxicity Test.

"Daily Composite" or **"(DC)"** means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than sixty (60) minutes and combined proportionally to flow; or, a composite sample continuously collected over a full operating day proportionally to flow.

"Daily Concentration" means the concentration of a substance as measured in a daily composite sample, or, arithmetic average of all grab sample results defining a grab sample average.

"Daily Quantity" means the quantity of waste discharged during an operating day.

"Geometric Mean" is the "n"th root of the product of "n" observations.

"Infiltration" means water other than wastewater that enters a sewer system (including sewer system and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.

"Inflow" means water other than wastewater that enters a sewer system (including sewer service connections) from sources such as, but not limited to, roof leaders, cellar drains, yard drains, area drains, drains from springs and swampy areas, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

"Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"In-stream Waste Concentration" or **"(IWC)"** means the concentration of a discharge in the receiving water after mixing has occurred in the allocated zone of influence.

"MGD" means million gallons per day.

"Maximum Daily Limit" means the maximum allowable "Daily Concentration" (defined above) when expressed as a concentration (e.g. mg/l), otherwise, it means the maximum allowable "Daily Quantity" as defined above, unless it is expressed as a flow quantity. If expressed as a flow quantity it means "Maximum Daily Flow" as defined in Section 22a-430-3(a) of the RCSA.

"Monthly Minimum Removal Efficiency" means the minimum reduction in the pollutant parameter specified when the effluent average monthly concentration for that parameter is compared to the influent average monthly concentration.

"NA" as a Monitoring Table abbreviation means "not applicable".

"NR" as a Monitoring Table abbreviation means "not required".

"No Observable Acute Effect Level" or **"(NOAEL)"** means any concentration equal to or less than the critical test concentration in a single concentration (pass/fail) toxicity test, conducted pursuant to Section 22a-430-3(j)(7)(A)(i) of the RCSA, demonstrating 90% or greater survival of test organisms at the CTC.

"Quarterly" in the context of any sampling frequency, shall mean sampling is required in the months of January, April, July and October.

"Range During Sampling" or **"(RDS)"** as a sample type means the maximum and minimum of all values recorded as a result of analyzing each grab sample of; 1) a Composite Sample, or, 2) a Grab Sample Average. For those permittees with pH meters that provide continuous monitoring and recording, Range During Sampling means the maximum and minimum readings recorded with the continuous monitoring device during the Composite or Grab Sample Average sample collection.

"Range During Month" or **"(RDM)"** as a sample type means the lowest and the highest values of all of the monitoring data for the reporting month.

"Sanitary Sewage" means wastewaters from residential, commercial and industrial sources introduced by direct connection to the sewerage collection system tributary to the treatment works including non-excessive inflow/infiltration sources.

"Twice per Month" in the context of any sampling frequency, mean two samples per calendar month collected no less than 12 days apart.

"ug/l" means micrograms per liter

"Work Day" in the context of a sampling frequency means, Monday through Friday excluding holidays.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner of Energy and Environmental Protection ("Commissioner") has issued a final decision and found continuance of the existing system to treat the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on application #201206366 for permit reissuance received on September 25, 2012 and the administrative record established in the processing of that application.
- (B) The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or his authorized agent for the discharges and/or activities authorized by, or associated with, this permit.
- (C) The Commissioner reserves the right to make appropriate revisions to the permit, if required after Public Notice, in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL LIMITATIONS AND OTHER CONDITIONS

- (A) The Permittee shall not accept any new sources of non-domestic wastewater conveyed to its POTW through its sanitary sewerage system or by any means other than its sanitary sewerage system unless the generator of such wastewater; (a) is authorized by a permit issued by the Commissioner under Section 22a-430 CGS (individual permit), or, (b) is authorized under Section 22a-430b (general permit), or, (c) has been issued an emergency or temporary authorization by the Commissioner under Section 22a-6k. All such non-domestic wastewaters shall be processed by the POTW via receiving facilities at a location and in a manner prescribed by the permittee which are designed to contain and control any unplanned releases.
- (B) No new discharge of domestic sewage from a single source to the POTW in excess of 50,000 gallons per day shall be allowed by the permittee until the Municipal Facilities Section has been notified in writing by the permittee of said new discharge.
- (C) The permittee shall maintain a system of user charges based on actual use sufficient to operate and maintain the POTW (including the collection system) and replace critical components.
- (D) The permittee shall maintain a sewer use ordinance that is consistent with the Model Sewer Ordinance for Connecticut Municipalities prepared by the Department of Energy and Environmental Protection. The Commissioner of Energy and Environmental Protection alone may authorize certain discharges which may not conform to the Model Sewer Ordinance.
- (E) No discharge shall contain or cause in the receiving stream a visible oil sheen, floating solids, visible discoloration, or foaming.
- (F) No discharge shall cause acute or chronic toxicity in the receiving water body beyond any Zone Of Influence (ZOI) specifically allocated to that discharge in this permit.

- (G) The permittee shall maintain an alternate power source adequate to provide full operation of all pump stations in the sewerage collection system and to provide a minimum of primary treatment and disinfection at the water pollution control facility to insure that no discharge of untreated wastewater will occur during a failure of a primary power source.
- (H) The average monthly effluent concentration shall not exceed 15% of the average monthly influent concentration for BOD₅ and Total Suspended Solids for all daily composite samples taken in any calendar month.
- (I) Any new or increased amount of sanitary sewage discharge to the sewer system is prohibited where it will cause a dry weather overflow or exacerbate an existing dry weather overflow.
- (J) Sludge Conditions
- (1) The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices, including but not limited to 40 CFR Part 503.
 - (2) If an applicable management practice or numerical limitation for pollutants in sewage sludge more stringent than existing federal and state regulations is promulgated under Section 405(d) of the Clean Water Act (CWA), this permit shall be modified or revoked and reissued to conform to the promulgated regulations.
 - (3) The permittee shall give prior notice to the Commissioner of any change(s) planned in the permittees' sludge use or disposal practice. A change in the permittees' sludge use or disposal practice may be a cause for modification of the permit.
 - (4) Testing for inorganic pollutants shall follow "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846 as updated and/or revised.
- (K) This permit becomes effective on the 1st day of the month following the date of signature.
- (L) When the arithmetic mean of the average daily flow from the POTW for the previous 180 days exceeds 90% of the design flow rate, the permittee shall develop and submit within one year, for the review and approval of the Commissioner, a plan to accommodate future increases in flow to the plant. This plan shall include a schedule for completing any recommended improvements and a plan for financing the improvements.
- (M) When the arithmetic mean of the average daily BOD₅ or TSS loading into the POTW for the previous 180 days exceeds 90% of the design load rate, the permittee shall develop and submit for the review of the Commissioner within one year, a plan to accommodate future increases in load to the plant. This plan shall include a schedule for completing any recommended improvements and a plan for financing the improvements.
- (N) On or before July 31st of each calendar year the main flow meter shall be calibrated by an independent contractor in accordance with the manufacturer's specifications. The actual record of the calibration shall be retained onsite and, upon request, the permittee shall submit to the Commissioner a copy of that record.
- (O) The permittee shall operate and maintain all processes as installed in accordance with the approved plans and specifications and as outlined in the associated operation and maintenance manual. This includes but is not limited to all recycle pumping systems, aeration equipment, aeration tank cycling, mixing equipment, anoxic basin, chemical feed systems, effluent filters or any other process equipment necessary for the optimal removal of pollutants. The permittee shall not bypass or fail to operate any of the approved process equipment without the written approval of the Commissioner.
- (P) The permittee is hereby authorized to accept septage at the treatment facility; or other locations as approved by the Commissioner.
- (Q) The temperature of any discharge shall not increase the temperature of the receiving stream above 83°F, or, in any case, raise the temperature of the receiving stream by more than 4°F. The incremental temperature increase in coastal and marine waters is limited to 1.5°F during the period including July, August and September.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- (A) The discharge(s) shall not exceed and shall otherwise conform to the specific terms and conditions listed in this permit. The discharge is restricted by, and shall be monitored in accordance with Tables A through G incorporated in this permit as Attachment 1.

- (B) The Permittee shall monitor the performance of the treatment process in accordance with the Monthly Operating Report (MOR) incorporated in this permit as Attachment 2.

SECTION 6: SAMPLE COLLECTION, HANDLING and ANALYTICAL TECHNIQUES

(A) Chemical Analysis

- (1) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved pursuant to the Code of Federal Regulations, Part 136 of Title 40 (40 CFR 136) unless an alternative method has been approved in writing pursuant to 40 CFR 136.4 or as provided in Section 22a-430-3-(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 or the RCSA shall be analyzed in accordance with methods specified in this permit.
- (2) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal, as defined in 40 CFR 136 unless otherwise specified.

- (3) Grab samples shall be taken during the period of the day when the peak hourly flow is normally experienced.
- (4) Samples collected for bacteriological examination shall be collected between the hours of 11 a.m. and 3 p.m. or at that time of day when the peak hourly flow is normally experienced.
- (5) The Minimum Levels specified below represent the concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Attachment 1, Table C. Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

| <u>Parameter</u> | <u>Minimum Level</u> |
|------------------|----------------------|
| Arsenic, Total | 0.005 mg/l |
| Mercury, Total | 0.0002 mg |

- (6) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this Section of the permit.
- (7) Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this Section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.
- (8) Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this permit.

(B) Acute Aquatic Toxicity Test

- (1) Samples for monitoring of Acute Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA-821-R-02-012).
- (a) Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 0 - 6°C until Acute Aquatic Toxicity testing is initiated.
- (b) Effluent samples shall not be dechlorinated, filtered, or, modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility. Facilities with effluent dechlorination and/or filtration designed as part of the treatment process are not required to obtain approval from the Commissioner.
- (c) Samples shall be taken at the final effluent for Acute Aquatic Toxicity unless otherwise approved in writing by the Commissioner for monitoring at this facility.

- (d) Chemical analyses of the parameters identified in Attachment 1, Table C shall be conducted on an aliquot of the same sample tested for Acute Aquatic Toxicity.
- (i) At a minimum, pH, salinity, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Acute Aquatic Toxicity tests, in the highest concentration of the test and in the dilution (control) water at the beginning of the test and at test termination. If total residual chlorine is not detected at test initiation, it does not need to be measured at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination. Salinity shall be measured in each test concentration at the beginning of the test and at test termination.
- (e) Tests for Acute Aquatic Toxicity shall be initiated within 36 hours of sample collection.
- (2) Monitoring for Acute Aquatic Toxicity to determine compliance with the permit condition on Acute Aquatic Toxicity (invertebrate) shall be conducted for 48 hours utilizing neonatal (less than 24 hours old) *Daphnia pulex*.
- (3) Monitoring for Acute Aquatic Toxicity to determine compliance with the permit limit on Acute Aquatic Toxicity (vertebrate) shall be conducted for 48 hours utilizing larval (1 to 14-day old with no more than 24 hours range in age) *Pimephales promelas*.
- (4) Tests for Acute Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for measuring the Acute Aquatic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.
- (a) For Acute Aquatic Toxicity limits, and for monitoring only conditions, expressed as a NOAEL value, Pass/Fail (single concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity limit, (100% in the case of monitoring only conditions), as prescribed in Section 22a-430-3(j)(7)(A)(i) of the RCSA.
- (b) Organisms shall not be fed during the tests.
- (c) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50±5 mg/L as CaCO₃ shall be used as dilution water in the tests.
- (d) Copper nitrate shall be used as the reference toxicant.
- (5) For monitoring only conditions, toxicity shall be demonstrated when the results of a valid pass/fail Acute Aquatic Toxicity indicates less than 90% survival in the effluent at the CTC (100%).
- (C) Chronic Aquatic Toxicity Test for Estuarine or Marine Discharges
- (1) Chronic Aquatic Toxicity testing of the discharge shall be conducted annually during July, August, or September of each year.
- (2) Chronic Aquatic Toxicity testing shall be performed on the discharge in accordance with the test methodology established in "Short-Term Methods for Estimating The Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms" (EPA-821-R-02-014) as referenced in 40 CFR 136 for sheepshead minnow, *Cyprinodon variegates*, survival and growth and mysid, *Mysidopsis bahia*, survival, growth and reproduction.
- (a) Chronic Aquatic Toxicity tests shall utilize a minimum of five effluent dilutions prepared using a dilution factor of 0.5 (100% effluent, 50% effluent, 25% effluent, 12.5% effluent, and 1% effluent).
- (b) Stamford Harbor water collected outside the area influenced by the discharge (at slack high tide or within one hour after) shall be used as control (0% effluent) and dilution water in the toxicity tests.
- (c) A laboratory water control consisting of synthetic seawater prepared in accordance with EPA-821-R-02-014 shall be used as an additional control (0% effluent) in the toxicity tests.
- (d) Daily composite samples of the discharge (final effluent following disinfection) and grab samples of Stamford Harbor,

for use as site water control and dilution water, shall be collected on day 0 for test solution renewal on day 1 and day 2 of the test; day 2, for test solution renewal on day 3 and day 4 of the test; and day 4, for test solution renewal for the remainder of the test. Samples shall not be pH or hardness adjusted, or chemically altered in any way.

- (3) All samples of the discharge and Stamford Harbor water used in the Chronic Aquatic Toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 6(A) of this permit for the parameters listed in Attachment 1, Table C included herein.

SECTION 7: RECORDING AND REPORTING REQUIREMENTS

- (A) The results of chemical analyses and any aquatic toxicity test required above in Section 5 and the referenced Attachment 1 shall be entered on the Discharge Monitoring Report (DMR) and reported to the Bureau of Water Protection and Land Reuse. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR must be received at the following address by the 15th day of the month following the month in which samples are collected.

ATTN: Municipal Wastewater Monitoring Coordinator
Connecticut Department of Energy and Environmental Protection
Bureau of Water Protection and Land Reuse, Planning and Standards Division
79 Elm Street
Hartford, Connecticut 06106-5127

- (1) For composite samples, from other than automatic samplers, the instantaneous flow and the time of each aliquot sample collection shall be recorded and maintained at the POTW.
- (B) Complete and accurate test data, including percent survival of test organisms in each replicate test chamber, LC₅₀ values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Protection and Land Reuse at the address specified above in Section 7 (A) of this permit by the 15th day of the month following the month in which samples are collected.
- (C) The results of the process monitoring required above in Section 5 shall be entered on the Monthly Operating Report (MOR) form, included herein as Attachment 2, and reported to the Bureau of Water Protection and Land Reuse. The MOR report shall also be accompanied by a detailed explanation of any violations of the limitations specified. The MOR, must be received at the address specified above in Section 7 (A) of this permit by the 15th day of the month following the month in which the data and samples are collected.
- (D) A complete and thorough report of the results of the chronic toxicity monitoring outlined in Section 6(C) shall be prepared as outlined in Section 10 of EPA-821-R-02-014 for estuarine and marine waters, and submitted to the Department for review on or before December 31 of each calendar year to the address specified above in Section 7 (A) of this permit.
- (E) The Permittee and/or the Signatory Authority shall continue to electronically submit DMRs under this permit to the Department using NetDMR. DMRs shall be submitted electronically to the Department no later than the 15th day of the month following the completed reporting period.

SECTION 8: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS, BYPASSES, MECHANICAL FAILURES, AND MONITORING EQUIPMENT FAILURES

- (A) If any Acute Aquatic Toxicity sample analysis indicates toxicity, or that the test was invalid, an additional sample of the effluent shall be collected and tested for Acute Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity) via the ATMR form (see Section 7 (B)) within 30 days of the previous test. These test results shall also be reported on the next month's DMR report pursuant to Section 7 (A). The results of all toxicity tests and associated chemical parameters, valid and invalid, shall be reported.
- (B) If any two consecutive Acute Aquatic Toxicity test results or any three Acute Aquatic Toxicity test results in a twelve month period indicates toxicity, the permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report, to the Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity), for the review and written approval of the Commissioner in accordance with Section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction

and the permittee shall comply with any schedule approved by the Commissioner.

- (C) Section 22a-430-3(k) of the RCSA shall apply in all instances of bypass including a bypass of the treatment plant or a component of the sewage collection system planned during required maintenance. The Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Planning and Standards Division, Municipal Facilities Section (860) 424-3704, the Department of Public Health, Water Supply Section (860) 509-7333 and Recreation Section (860) 509-7297, and the local Director of Health shall be notified within 2 hours of the permittee learning of the event by telephone during normal business hours. If the discharge or bypass occurs outside normal working hours (8:30 a.m. to 4:30 p.m. Monday through Friday), notification shall be made within 2 hours of the permittee learning of the event to the Emergency Response Unit at (860) 424-3338 and the Department of Public Health at (860) 509-8000. A written report shall be submitted to the Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Planning and Standards Division, Municipal Facilities Section within five days of the permittee learning of each occurrence, or potential occurrence, of a discharge or bypass of untreated or partially treated sewage.

The written report shall contain:

- (i) The nature and cause of the bypass, permit violation, treatment component failure, and/or equipment failure,
- (ii) the time the incident occurred and the anticipated time which it is expected to continue or, if the condition has been corrected, the duration,
- (iii) the estimated volume of the bypass or discharge of partially treated or raw sewage,
- (iv) the steps being taken to reduce or minimize the effect on the receiving waters, and
- (v) the steps that will be taken to prevent reoccurrence of the condition in the future.

For treatment plants south of Interstate 95 and any other plants which may impact shellfishing areas the Department of Agriculture/Aquaculture Division must also be notified within 2 hours of the permittee learning of the event by telephone at (203) 874-0696 and in writing within 72 hours of each occurrence of an emergency diversion or by-pass of untreated or partially treated sewage and a copy of the written report should be sent to:

State of Connecticut
Department of Agriculture/Aquaculture Division
P.O. Box 97
Milford, Connecticut 06460

- (D) Section 22a-430-3(j) 11 (D) of the RCSA shall apply in the event of any noncompliance with a maximum daily limit and/or any noncompliance that is greater than two times any permit limit. The permittee shall notify in the same manner as in paragraph C of this Section, the Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse Planning and Standards Division, Municipal Facilities Section except, if the noncompliance occurs outside normal working hours (8:30 a.m. to 4:30 p.m. Monday through Friday) the permittee may wait to make the verbal report until 10:30 am of the next business day after learning of the noncompliance.
- (E) Section 22a-430-3(j) 8 of the RCSA shall apply in all instances of monitoring equipment failures that prevent meeting the requirements in this permit. In the event of any such failure of the monitoring equipment including, but not limited to, loss of refrigeration for an auto-sampler or lab refrigerator or loss of flow proportion sampling ability, the permittee shall notify in the same manner as in paragraph C of this Section, the Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Planning and Standards Division, Municipal Facilities Section except, if the failure occurs outside normal working hours (8:30 a.m. to 4:30 p.m. Monday through Friday) the permittee may wait to make the verbal report until 10:30 am of the next business day after learning of the failure.
- (F) In addition to the reporting requirements contained in Section 22a-430-3(i), (j), and (k) of the Regulations of Connecticut State Agencies, the permittee shall notify in the same manner as in paragraph C of this Section, the Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Planning and Standards Division, Municipal Facilities Section concerning the failure of any major component of the treatment facilities which the permittee may have reason to believe would result in an effluent violation.

SECTION 9: COMPLIANCE SCHEDULES

- (A) The permittee shall achieve the final water quality-based effluent limits for **Fecal Coliform and Enterococci** for DSN 001-1 established in Section 5 and Table A of this permit, in accordance with the following:
- (1) The permittee retained the services of the engineering firms Stantec and Hazen and Sawyer P.C., to prepare an engineering report evaluation of the existing ultraviolet ("UV") disinfection system, final effluent pumps and ancillary equipment associated therewith. Said evaluations are dated respectively February 20, 2013 including a supplemental report dated March 11, 2013 and Hazen and Sawyer P.C.'s., peer review of Stantec's report dated March 27, 2013. Said evaluations recommended upgrades to the systems described herein in order to increase their operational reliability and achieve compliance with the bacterial limits described in Section 5 and Table A included herein.
 - (2) Unless another deadline is specified in writing by the Commissioner, on or before **October 31, 2014**, the permittee shall submit for the Commissioner's review and written approval, contract plans and specifications including an implementation schedule for remedial actions to achieve compliance with the bacterial limits described in this Section.
 - (3) In the event that the permittee becomes aware that it will be able to comply with the bacterial limits described in this Section of the permit before any of the deadlines specified in Sections 9(A) or 9(B) included herein, the permittee shall immediately notify in writing the person identified in Section 9(F) below, and the referenced bacterial limits shall become effective on the 1st day of the month following the date of submission of said written notification. Said notification may preclude the requirement for compliance with any of the deadlines or submission of any documents listed in this Section beyond the date of implementation of the above-mentioned bacterial limits.
 - (4) The permittee shall submit to the person identified in Section 9(F) below **semiannual** status reports beginning sixty days after the date of issuance of this permit. Status reports shall include, but not be limited to, a detailed description of progress made by the permittee in performing actions required by this Section of the permit. Details such as the development of engineering plans and specifications, contract bidding, construction activity, funding status, operational changes, preparation and submittal of permit applications, or any other relevant activities deemed necessary to achieve compliance with the requirements included in this Section shall be incorporated in the mentioned status report.
 - (5) In the event that the permittee becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this Section of the permit or of any document required hereunder, the permittee shall immediately notify the person identified in Section 9(F) below and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the Commissioner, the permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the permittee shall comply with any dates which may be approved in writing by the Commissioner. Notification by the permittee shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.
- (B) The permittee shall perform the approved actions in accordance with Section 9A above in accordance with the approved schedule(s), but in no event shall the approved actions be completed later than: **October 31, 2016** for bacterial monitoring compliance. Within fifteen days after completing such actions, the permittee shall certify to the Commissioner in writing that the actions have been completed as approved.
- (C) The permittee shall use best efforts to submit to the Commissioner all documents required by this Section of the permit in a complete and approvable form. If the Commissioner notified the permittee that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and the permittee shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within thirty days of the Commissioner's notice of deficiencies. In approving any document or other action under this Compliance Schedule, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this Section of the permit. Nothing in this paragraph shall excuse noncompliance or delay.
- (D) Dates. The date of submission to the Commissioner of any document required by this Section of the permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this Section of the permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this

permit, the word "day" as used in this Section of the permit means calendar day. Any document or action which is required by this Section only of the permit, to be submitted, or performed, by a date which falls on, Saturday, Sunday, or, a Connecticut or federal holiday, shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or Connecticut or federal holiday.

- (E) Notice to Commissioner of changes. Within fifteen days of the date the permittee becomes aware of a change in any information submitted to the Commissioner under this Section of the permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the permittee shall submit the correct or omitted information to the Commissioner.
- (F) Submission of documents. Any document, other than a DMR, ATMR or MOR required to be submitted to the Commissioner under this Section of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Carlos Esguerra
Department of Energy and Environmental Protection
Bureau of Water Protection and Land Reuse, Planning and Standards Division
79 Elm Street
Hartford, Connecticut 06106-5127

This permit is hereby issued on

Betsey Wingfield
Bureau Chief
Bureau of Water Protection and Land Reuse

ATTACHMENT 1

Tables A through H

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TABLE A

| Discharge Serial Number (DSN): 001-1 | | | | | Monitoring Location: 1 | | | | | |
|---|--|----------------------------|---------------------|-------------------------|---|--|--------------|-------------|--------------------|--------------------------------------|
| Wastewater Description: Sanitary Sewage | | | | | | | | | | |
| Monitoring Location Description: Final Effluent | | | | | | | | | | |
| Allocated Zone of Influence (ZOI): 3,650 cfs | | | | | In-stream Waste Concentration (IWC): 1 % | | | | | |
| PARAMETER | Units | FLOW/TIME BASED MONITORING | | | | INSTANTANEOUS MONITORING | | | REPORT FORM | Minimum Level Analysis See Section 6 |
| | | Average Monthly Limit | Maximum Daily Limit | Sample Freq. | Sample type | Instantaneous Limit or Required Range ³ | Sample Freq. | Sample Type | | |
| Alkalinity | mg/l | NA | NA | NR | NA | ----- | Monthly | Grab | MOR | |
| Biochemical Oxygen Demand (5 day) ¹ See remark (G) | mg/l | 20 | 40 | 3/Week | Daily Composite | NA | NR | NA | DMR/MOR | |
| Fecal coliform ⁴ (year round) | Colonies per100 ml | NA | NA | NR | NA | see remarks (B) and (C) below | 3/Week | Grab | DMR/MOR | |
| Fecal coliform ⁵ (year round) | Colonies per100 ml | NA | NA | NR | NA | see remarks (D) below | 3/Week | Grab | DMR/MOR | |
| Fecal coliform ⁵ (year round) See remark (E) | Percent of samples with more than 260 colonies per100 ml | NA | NA | NR | Calculated | ≤10 | 3/Week | Grab | DMR/MOR | |
| Enterococci ⁵ (year round) See remark (F) | Colonies per100 ml | NA | NA | NR | NA | 500 | 3/Week | Grab | DMR/MOR | |
| Flow (Average Daily) | MGD | ----- | ----- | Continuous ² | Daily Flow | NA | NR | NA | DMR/MOR | |
| Nitrogen, Ammonia (total as N) November – May June - October | mg/l | NA 2 | ----- ----- | Weekly 3/Week | Daily Composite | NA | NR | NA | DMR/MOR DMR/MOR | |
| Nitrogen, Nitrate (total as N) | mg/l | NA | ----- | Monthly | Daily Composite | NA | NR | NA | MOR | |
| Nitrogen, Nitrite (total as N) | mg/l | NA | ----- | Monthly | Daily Composite | NA | NR | NA | MOR | |
| Nitrogen, Total Kjeldahl | mg/l | NA | ----- | Monthly | Daily Composite | NA | NR | NA | MOR | |
| Nitrogen, Total | mg/l | NA | ----- | Monthly | Daily Composite | NA | NR | NA | MOR | |
| Nitrogen, Total | lbs/day | NA | ----- | Monthly | Daily Composite | NA | NR | NA | MOR | |
| Oxygen, Dissolved | mg/l | NA | NA | NR | NA | ----- | Work Day | Grab | MOR | |
| pH | S.U. | NA | NA | NR | NA | 6 - 9 | Work Day | Grab | DMR/MOR | |

| | | | | | | | | | | |
|---|----------------------|----|-------|---------|-----------------|-------|------------|------------|---------|--|
| Phosphate, Ortho | mg/l | NA | ----- | Monthly | Daily Composite | NA | NR | NA | MOR | |
| Phosphorus, Total | mg/l | NA | ----- | Monthly | Daily Composite | NA | NR | NA | DMR/MOR | |
| Solids, Settleable | ml/l | NA | NA | NR | NA | ----- | Work Day | Grab | MOR | |
| Solids, Total Suspended ¹ See remark (G) | mg/l | 20 | 40 | 3/Week | Daily Composite | NA | NR | NA | DMR/MOR | |
| Temperature | °F | NA | NA | NR | NA | ----- | Work Day | Grab | MOR | |
| Turbidity | NTU | NA | NA | NR | NA | ----- | Work Day | Grab | MOR | |
| UV Dose. See remark A | mW,s/cm ² | NA | NA | NR | NA | ≥30.0 | Continuous | Continuous | DMR/MOR | |
| UV Transmittance. See remark A | % | NA | NA | NR | NA | ----- | Work Day | Grab | MOR | |

TABLE A - CONDITIONS

Footnotes:

¹ The discharge shall not exceed an average monthly 20 mg/l and a maximum daily 40 mg/l.

² The permittee shall record and report on the monthly operating report the minimum, maximum and total flow for each day of discharge and the average daily flow for each sampling month. The permittee shall report, on the discharge monitoring report, the average daily flow and maximum daily flow for each sampling month.

³ The instantaneous limits in this column are maximum limits except for UV Dose which is a minimum limit.

⁴ During the period beginning at the date of issuance of this permit and lasting until the implementation of Enterococci and new fecal coliform monitoring requirements, the discharge shall not exceed and shall otherwise continue to conform to specific terms and conditions listed in remarks B and C below.

⁵ During the period beginning after the implementation of the new bacteria monitoring requirements described below, but no later than **October 31, 2016**, lasting until expiration, the discharge shall not exceed and shall otherwise conform to the specific terms and conditions listed in remarks D through F below as applicable. **See section 9 above for additional compliance requirements.**

Remarks:

(A) Ultraviolet disinfection shall be utilized year-round.

(B) The geometric mean of the fecal coliform bacteria values for the effluent samples collected in any calendar month shall not exceed 200 per 100 milliliters.

(C) The geometric mean of the Fecal coliform bacteria values for the effluent samples collected in any calendar week shall not exceed 400 per 100 milliliters.

(D) The geometric mean of the Fecal coliform bacteria values for the effluent samples collected in any calendar month shall not exceed 88 per 100 milliliters.

(E) No more than 10% of the Fecal coliform bacteria values for the effluent samples collected in any calendar month shall exceed 260 per 100 milliliters.

(F) The geometric mean of the Enterococci bacteria values for the effluent samples collected in any calendar month shall not exceed 35 per 100 milliliters.

Remarks (Continued)

(G) The Average Weekly discharge Limitation for BOD₅ and Total Suspended Solids shall be 1.5 times the Average Monthly Limit listed above

(H) In addition to the discharge limits included herein, the following conditions shall apply:

- (i) Biochemical Oxygen Demand shall not exceed 50 mg/l on a 6 consecutive hour average.
- (ii) Total Suspended Solids content shall not exceed 50 mg/l on a 6 consecutive hour average.
- (iii) Fecal Coliform content shall not exceed:
 - (a) 800 per 100 ml on a 6 consecutive hour geometric mean.
 - (b) No sample may contain more than 2,400 per 100 ml.

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TABLE B

| Discharge Serial Number (DSN): 001-1 | | Monitoring Location: K | | | |
|---|---------------|-------------------------------|--|-------------------------|-------------|
| Wastewater Description: Sanitary Sewage | | | | | |
| Monitoring Location Description: Final Effluent | | | | | |
| Allocated Zone of Influence (ZOI): 3,650 cfs | | | In-stream Waste Concentration (IWC): 1% | | |
| PARAMETER | Units | FLOW/TIME BASED MONITORING | | | REPORT FORM |
| | | Average Monthly Minimum | Sample Freq. | Sample type | |
| Biochemical Oxygen Demand (5 day) Percent Removal ¹ | % of Influent | 85 | 3/Week | Calculated ² | DMR/MOR |
| Solids, Total Suspended Percent Removal ¹ | % of Influent | 85 | 3/Week | Calculated ² | DMR/MOR |
| TABLE B – CONDITIONS | | | | | |
| Footnotes: | | | | | |
| ¹ The discharge shall be less than or equal to 15% of the average monthly influent BOD ₅ and total suspended solids (Table E, Monitoring Location G). | | | | | |
| ² Calculated based on the average monthly results described in Table A. Removal efficiency = ((Inf. (BOD or TSS) – Eff. (BOD or TSS)) / Inf. (BOD or TSS)) X 100 | | | | | |

TABLE C

| Discharge Serial Number (DSN): 001-1 | | | Monitoring Location: T | | | |
|--|------------|---------------------|---|-----------------|----------------|--------------------------------------|
| Wastewater Description: Sanitary Sewage | | | | | | |
| Monitoring Location Description: Final Effluent | | | | | | |
| Allocated Zone of Influence (ZOI): 3,650 cfs | | | In-stream Waste Concentration (IWC): 1 % | | | |
| PARAMETER | Units | Maximum Daily Limit | Sampling Frequency | Sample Type | Reporting form | Minimum Level Analysis See Section 6 |
| Aluminum, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Antimony, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| NOAEL Static 48Hr Acute D. Pulex ¹ | % survival | ----- | Quarterly | Daily Composite | ATMR/DMR | |
| NOAEL Static 48Hr Acute Pimephales ¹ | % survival | ----- | Quarterly | Daily Composite | ATMR/DMR | |
| Arsenic, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | * |
| Beryllium, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| BOD ₅ | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Cadmium, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Chromium, Hexavalent | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Chromium, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Chlorine, Total Residual | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Copper, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Cyanide, Amenable | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Cyanide, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Iron, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Lead, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Mercury, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | * |
| Nickel, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Nitrogen, Ammonia (total as N) | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Nitrogen, Nitrate, (total as N) | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Nitrogen, Nitrite, (total as N) | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Phosphorus, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Phenols, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Selenium, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Silver, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Suspended Solids, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Thallium, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| Zinc, Total | mg/l | ----- | Quarterly | Daily Composite | ATMR | |
| TABLE C - CONDITIONS | | | | | | |
| Remarks: ¹ The results of the Toxicity Tests are recorded in % survival. The permittee shall report % survival on the DMR based on criteria in Section 6(B) of this permit. | | | | | | |
| ATMR – Aquatic Toxicity Monitoring Report | | | | | | |

TABLE D

| Discharge Serial Number: 001-1 | | Monitoring Location: N | | |
|--|-----------------------------|-------------------------------|-------------|----------------|
| Wastewater Description: Activated Sludge | | | | |
| Monitoring Location Description: Each Aeration Unit | | | | |
| PARAMETER | REPORTING FORMAT | INSTANTANEOUS MONITORING | | REPORTING FORM |
| | | Sample Frequency | Sample Type | |
| Oxygen, Dissolved | High & low for each WorkDay | 2/WorkDay | Continuous | MOR |
| Sludge Volume Index | WorkDay | WorkDay | Grab | MOR |
| Mixed Liquor Suspended Solids | WorkDay | WorkDay | Grab | MOR |

TABLE E

| Discharge Serial Number: 001-1 | | | Monitoring Location: G | | | | |
|--|-------|----------------------|-------------------------------|-----------------|--------------------------|-------------|----------------|
| Wastewater Description: Sanitary Sewage | | | | | | | |
| Monitoring Location Description: Influent | | | | | | | |
| PARAMETER | Units | DMR REPORTING FORMAT | FLOW/TIME BASED MONITORING | | INSTANTANEOUS MONITORING | | REPORTING FORM |
| | | | Sample Frequency | Sample Type | Sample Frequency | Sample Type | |
| Biochemical Oxygen Demand (5 day) | mg/l | Monthly average | 3/Week | Daily Composite | NA | NA | DMR/MOR |
| Nitrogen, Ammonia (total as N) | mg/l | | Monthly | Daily Composite | NA | NA | MOR |
| Nitrogen, Nitrate (total as N) | mg/l | | Monthly | Daily Composite | NA | NA | MOR |
| Nitrogen, Nitrite (total as N) | mg/l | | Monthly | Daily Composite | NA | NA | MOR |
| Nitrogen, Total Kjeldahl | mg/l | | Monthly | Daily Composite | NA | NA | MOR |
| Nitrogen, Total | mg/l | | Monthly | Daily Composite | NA | NA | MOR |
| Phosphate, Ortho | mg/l | | Monthly | Daily Composite | NA | NA | MOR |
| Phosphorus, Total | mg/l | | Monthly | Daily Composite | NA | NA | MOR |
| pH | S.U. | | NA | NA | Work Day | Grab | MOR |
| Solids, Total Suspended | mg/l | Monthly average | 3/Week | Daily Composite | NA | NA | DMR/MOR |
| Temperature | °F | | NA | NA | Work Day | Grab | MOR |

TABLE F

| Discharge Serial Number: 001-1 | | | | Monitoring Location: P | | | |
|--|-------|---------------------|-------------------------------|-------------------------------|-----------------------------|-------------|-------------------|
| Wastewater Description: Primary Effluent | | | | | | | |
| Monitoring Location Description: Primary Sedimentation Basin Effluent | | | | | | | |
| PARAMETER | Units | REPORTING FORMAT | TIME/FLOW BASED MONITORING | | INSTANTANEOUS MONITORING | | REPORTING FORM |
| | | | Sample Frequency | Sample Type | Sample Frequency | Sample type | |
| Alkalinity, Total | mg/l | | NA | NA | Monthly | Grab | MOR |
| Biochemical Oxygen Demand (5 day) | mg/l | Monthly average | Weekly | Composite | NA | NA | MOR |
| Nitrogen, Ammonia (total as N) | mg/l | | Monthly | Composite | NA | NA | MOR |
| Nitrogen, Nitrate (total as N) | mg/l | | Monthly | Composite | NA | NA | MOR |
| Nitrogen, Nitrite (total as N) | mg/l | | Monthly | Composite | NA | NA | MOR |
| Nitrogen, Total Kjeldahl | mg/l | | Monthly | Composite | NA | NA | MOR |
| Nitrogen, Total | mg/l | | Monthly | Composite | NA | NA | MOR |
| pH | S.U. | | NA | NA | Monthly | Grab | MOR |
| Solids, Total Suspended | mg/l | Monthly average | Weekly | Composite | NA | NA | MOR |

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TABLE G

| Discharge Serial Number: 001-1 | | Monitoring Location: SL | |
|--|--------------------------|--------------------------------|----------------|
| Wastewater Description: Dewatered sludge | | | |
| Monitoring Location Description: At belt press | | | |
| PARAMETER | INSTANTANEOUS MONITORING | | REPORTING FORM |
| | Units | Grab Sample Freq. | |
| Arsenic, Total | mg/kg | Bi-monthly | DMR |
| Beryllium, Total | mg/kg | Bi-monthly | DMR |
| Cadmium, Total | mg/kg | Bi-monthly | DMR |
| Chromium, Total | mg/kg | Bi-monthly | DMR |
| Copper, Total | mg/kg | Bi-monthly | DMR |
| Lead, Total | mg/kg | Bi-monthly | DMR |
| Mercury, Total | mg/kg | Bi-monthly | DMR |
| Nickel, Total | mg/kg | Bi-monthly | DMR |
| Nitrogen, Ammonia * | mg/kg | Bi-monthly | DMR* |
| Nitrogen, Nitrate (total as N) * | mg/kg | Bi-monthly | DMR* |
| Nitrogen, Organic * | mg/kg | Bi-monthly | DMR* |
| Nitrogen, Nitrite (total as N) * | mg/kg | Bi-monthly | DMR* |
| Nitrogen, Total * | mg/kg | Bi-monthly | DMR* |
| pH * | S.U. | Bi-monthly | DMR* |
| Polychlorinated Biphenyls | mg/kg | Bi-monthly | DMR |
| Solids, Fixed | % | Bi-monthly | DMR |
| Solids, Total | % | Bi-monthly | DMR |
| Solids, Volatile | % | Bi-monthly | DMR |
| Zinc, Total | mg/kg | Bi-monthly | DMR |
| <p>(*) required for composting or land application Testing for inorganic pollutants shall follow “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846 as updated and/or revised.</p> | | | |

ATTACHMENT 2

MONTHLY OPERATING REPORT FORM

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DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: City of Stamford

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0101087 APPLICATION #: 201206366 FACILITY ID. 135-001

| | |
|---|--|
| <u>Mailing Address:</u> Street: 111 Harbor View Avenue City: Stamford CT 06902 Contact Name: William Brink, WPCA, Exc. Director Phone No.: 203-977-5809 | <u>Location Address:</u> Street: Same as mailing add. City: ST: CT Zip: Contact Name: William Degnan, Chief Operator Phone No.: 203-977-4134 DMR Contact email address: Wdegnan@ci.stamford.ct.us |
|---|--|

PERMIT INFORMATION

DURATION 5 YEAR 10 YEAR 30 YEAR

TYPE New Reissuance Modification

CATEGORIZATION POINT (X) NON-POINT () GIS #

NPDES (X) PRETREAT () GROUND WATER(UIC) () GROUND WATER (OTHER) ()

NPDES MAJOR(MA)

NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI)

NPDES or PRETREATMENT MINOR (MI)

COMPLIANCE SCHEDULE YES NO

POLLUTION PREVENTION TREATMENT REQUIREMENT

WATER QUALITY REQUIREMENT OTHER

OWNERSHIP CODE

Private Federal State Municipal (town only) Other public

DEP STAFF ENGINEER Carlos Esguerra

PERMIT FEES

| Discharge Code | DSN Number | Annual Fee |
|----------------|------------|------------|
| 111000g | 001-1 | \$3,320.00 |

FOR NPDES DISCHARGES

Drainage Basin Code: 7000-45 (Stamford Harbor)

Water Quality Classification Goal: SB

NATURE OF BUSINESS GENERATING DISCHARGE

Municipal Sanitary Sewage Treatment

PROCESS AND TREATMENT DESCRIPTION (by DSN)

Secondary biological treatment plant with Nitrogen removal and year round UV disinfection.

RESOURCES USED TO DRAFT PERMIT

Federal Effluent Limitation Guideline 40CFR 133 Secondary Treatment Category

- Performance Standards*
- Federal Development Document*
name of category
- Department File Information*
- Connecticut Water Quality Standards*
- Anti-degradation Policy*
- Coastal Management Consistency Review Form*
- Other - Explain*

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

- Secondary Treatment (Section 22a-430-4(r) of the Regulations of Connecticut State Agencies)*
- Case-by-Case Determination (See Other Comments)*
- In order to meet in-stream water quality (See General Comments)*
- Anti-degradation policy*

GENERAL COMMENTS

The activities authorized within this permit have been reviewed for consistency with the Connecticut Anti-degradation Policies and associated implementation guidance contained in the Connecticut Water Quality Standards. The authorized activities are consistent with maintenance and protection of water quality in accordance with Tier I Anti-degradation Evaluation and Implementation Review provisions of the Connecticut Water Quality Standards.

The need for inclusion of water quality based discharge limitations in this permit was evaluated consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria (acute and chronic) and human health (fish consumption only) criteria, considering the zone of influence allocated to the facility where appropriate. The statistical procedures outlined in the EPA Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) were employed to calculate the need for such limits. Comparison of monitoring data and its inherent variability with the calculated water quality based limits indicates a low statistical probability of exceeding such limits. Therefore, no water quality based limits were included in the permit at this time.

OTHER COMMENTS

This is a permit reissuance. Significant changes include the modification of bacteriological indicators of sanitary quality and added monitoring for aluminum and iron to be consistent with the most recent CT Water Quality Standards.

Engineering studies completed in 2013 by the engineering firms Stantec and Hazen and Sawyer P.C., of the existing ultraviolet (“UV”) disinfection system, final effluent pumps and ancillary equipment associated therewith recommended upgrades to these systems order to increase their operational reliability and achieve compliance with the bacterial limits included in table A of the permit. Thus, the permit includes a compliance schedule that requires the permittee to achieve compliance with said limits no later than October 31, 2016.

WATER QUALITY LIMIT CALCULATIONS

See attached

**Notice of Tentative Determination to Approve
NPDES Permit Renewal
Applicant: City of Stamford, WPCA
Application No. 201206366
City/Town: City of Stamford**

The Commissioner of the Department of Energy and Environmental Protection (“DEEP”) hereby gives notice that a tentative determination has been reached to approve the following application submitted under Section 22a-430 of the Connecticut General Statutes to renew a permit to discharge into the waters of the state.

Applicant’s Name and Address: City of Stamford, WPCA. 111 Harbor View, Stamford, CT 06902.

Contact Name and Phone No.: William Brink. 203-977-5809

Type of Permit and #: NPDES – CT0101087

Type of Facility: Domestic wastewater treatment

Facility Location: 111 Harbor View Avenue

Facility design capacity: 24.0 million gallons per day

PROPOSED ACTIVITY/FACILITY

The applicant has previously received a permit from the Department of Energy and Environmental Protection (“Department”) authorizing the discharge of up to an annual average daily design flow of 24 million gallons a day of secondary treated municipal wastewaters to the East Branch of Stamford Harbor. The applicant has submitted an application to renew its existing permit. This renewal application is the subject of this notice.

THE DRAFT PERMIT

The Department has prepared a draft permit consistent with the tentative determination to approve City of Stamford WPCA’s renewal application. This draft is available on the public participation section of the Department’s website. In accordance with Sections 22a-430-4(l) and 22a-430-4(r) of the Regulations of Connecticut State Agencies (RCSA), the draft permit contains effluent limitations that meet Connecticut’s Water Quality Standards for the following: Ammonia, Biochemical Oxygen Demand (5 day), enterococci, fecal coliform, flow, pH, total suspended solids and Ultraviolet light disinfection dose.

This permit contains an enforceable compliance schedule which requires the applicant to comply with new bacterial monitoring requirements no later than October 31st, 2016.

INFORMATION REQUESTS/PUBLIC COMMENT

Interested persons may obtain copies of the application from the applicant at the above address. The application and supporting documentation are available for inspection at the Department of Energy and Environmental Protection, Water Protection and Land Reuse, 79 Elm Street, Hartford, CT from Monday to Friday, 8:00 a.m. to 3:30 p.m., and at other times by appointment. Questions may be directed to Carlos Esguerra of the Municipal Facilities Section at 860-424-3756.

All interested persons are invited to express their views on the tentative determination concerning this application. Written comments on the application should be directed to Carlos Esguerra, Planning and Standards Division, Water Protection and Land Reuse Bureau, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127, no later than thirty (30) days from the publication date of this notice. Comments regarding this application may be submitted via electronic mail to: carlos.esguerra@ct.gov.

PETITIONS FOR HEARING

The Commissioner may hold a public hearing prior to approving or denying an application if in the Commissioner's discretion the public interest will be best served thereby and shall hold a hearing upon the receipt of a petition signed by at least twenty-five persons. Any petition for a hearing should include the application number noted above and also identify a contact person to receive notifications. A petition may also identify a person who is authorized to engage in discussions regarding the application and, if resolution is reached, withdraw the petition. Original petitions must be *mailed or delivered* within the comment period noted above to: DEEP Office of Adjudications, 79 Elm Street, 3rd floor, Hartford, 06106-5127. Petitions cannot be sent by fax or email. For additional information go to www.ct.gov/deep/adjudications. If a hearing is held, notice of such hearing will be published at least thirty days before any hearing is held.

Dated: 5/14/2013

/s/Denise Ruzicka, Director
Planning and Standards Division
Bureau of Water Protection and Land Reuse

The Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer. Persons with a disability who may need information in an alternative format should contact the ADA Coordinator at 860-424-3194 or at DEEP.HRmed@CT.Gov. Persons who are limited English proficient who may need information in another language should contact the Title VI Coordinator at (860) 424-3035 or at DEEP.aoffice@ct.gov. Persons who are hearing impaired should call the State of Connecticut relay number 711. Discrimination complaints should be filed with the Title VI Coordinator.