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# STATE OF CONNECTICUT
## DEPARTMENT OF ENVIRONMENTAL PROTECTION

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By

MUNICIPAL NPDES PERMIT

**issued to**

**Permittee:**
City of Danbury
155 Deer Hill Road
Danbury, Connecticut 06810

**Location Address:**
City of Danbury WPCF
Newtown Road
Danbury, Connecticut 06810

**Facility ID:** 034-001 **Permit ID:** CT0100145 **Permit Expires:** February 13, 2008

**Receiving Stream:** Limekiln Brook **Design Flow Rate:** 15.5 MGD

**SECTION 1: GENERAL PROVISIONS**

(A) This permit is issued 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 Danbury, ("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) and (l)(2) of Section 22a-430-3.** To the extent this permit imposes conditions which are 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

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**Section 22a-430-4 Procedures and Criteria**
- (a) Duty to Apply
- (b) Duty to Reapply
- (c) Application Requirements
- (d) Preliminary Review
- (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 July 2000 the annual fee is $1920.

## 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", "No Observable Acute Effect Level (NOAEL)" and "Grab Sample Average" 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

**"Annual"** in the context of any sampling frequency found in Attachment 1, means the sample must be collected in the month of July.

**"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-Weekly"** means 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 Sample" 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.

**"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 greater than 90% or greater survival of test organisms at the CTC.

**"Quarterly"** in the context of a sampling frequency, means 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.

**"MGD"** means million gallons per day.

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

**"Semi-Annual"** in the context of a sampling frequency, means the sample must be collected in the months of January and July.

**"Twice per Month"** when used as a sample frequency shall 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 Environmental Protection ("Commissioner"), has issued a final decision and found that modification of the existing system or installation of a new system would protect the waters of the state from pollution. The Commissioner's decision is based on application #199300515 for permit reissuance received on September 7, 1993 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 by any means other than its sanitary sewage 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 may be authorized by the permittee until the discharger has registered the discharge under the general permit for domestic sewage issued by the Commissioner on June 11, 1992 pursuant to Section 22a-430b of the CGS.

(C) The permittee shall maintain a system of user charges 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 Environmental Protection. The Commissioner of 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 or floating solids; or cause visible discoloration or foaming in the receiving stream.

(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 sewage 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 domestic 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 domestic 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 permittee's sludge use or disposal practice. A change in the permittee's sludge use or disposal practice may be a cause for modification of the permit.

(K) The limits imposed on the discharges listed in this permit take effect on the issuance date of this permit, hence any sample taken after this date which, upon analysis, shows to have exceeded permit limits will be considered non-compliant.

(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 for the review of the Commissioner within one year, 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 in accordance with the manufacturers' 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. The permittee shall operate all process equipment at all times in such a manner as to reduce discharges to the maximum extent possible. 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 equipment or processes without the written approval of the Commissioner.

(P) On or before 2.5 years from issuance each anaerobic digester unit shall be sampled, in a manner approved in writing by the Commissioner, to determine the amount of grit and depth of scum blanket. The results of the sampling shall be maintained at the POTW and, upon request, the permittee shall submit to the Commissioner a copy of the sampling data.

(Q) The permittee is hereby authorized to accept septage at the treatment facility; or other locations as approved by the Commissioner.

(R) The temperature of any discharge shall not increase the temperature of the receiving stream above 85°F, or, in any case, raise the normal temperature of the receiving stream more than 4°F.

## 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 the tables A through G which are 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) and the Nutrient Analysis Report (NAR) incorporated in this permit as Attachment 2, Tables A and B, respectively.

## 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. A chlorine residual sample must be taken at the same time and the results recorded.

(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(s) A, B, and D. 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.

| Parameter | Minimum Level |
|---|---|
| Ammonia Nitrogen | 0.010 mg/l |
| Arsenic, Total | 0.005 mg/l |
| Beryllium, Total | 0.001 mg/l |
| Cadmium, Total | 0.0005 mg/l |
| Chlorine, Total Residual | 0.050 mg/l |
| Chromium, Total Hexavalent | 0.010 mg/l |
| Copper, Total | 0.005 mg/l |
| Cyanide, Total | 0.010 mg/l |
| Lead, Total | 0.005 mg/l |
| Mercury, Total | 0.0002 mg/l |
| Selenium, Total | 0.005 mg/l |
| Silver, Total | 0.002 mg/l |
| Thallium, Total | 0.010 mg/l |
| Zinc, Total | 0.020 mg/l |

(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 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/600/4-90/027F).

(a) Daily Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 4°C until Aquatic Toxicity testing is initiated.

(b) Samples shall be taken after dechlorination for Aquatic Toxicity unless otherwise approved in writing by the Commissioner for monitoring at this facility.

(c) Chemical analyses of the parameters identified in Attachment 1, Table B shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.

(i) At a minimum, pH, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during 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. 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.

(d) Tests for Aquatic Toxicity shall be initiated within 36 hours of sample collection.

(2) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (invertebrate) shall be conducted for 48 hours utilizing neonatal (less than 24 hours old) *Daphnia pulex*.

(3) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (vertebrate) shall be conducted for 48 hours utilizing larval (1 to 14-days old with no more than 24 hours range in age) *Pimephales promelas*.

(4) Tests for Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/600/4-90/027F), except as specified below.

(a) For 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, except that five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be included.

(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 $CaCO_3$ shall be used as dilution water in the tests.

(d) Copper nitrate shall be used as the reference toxicant.

(5) For limits expressed as NOAEL = 100%, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity Test indicate 90% or greater survival in the effluent sample at the CTC (100%).

(C) Chronic Aquatic Toxicity Test

(1) Chronic toxicity testing of the discharge shall be conducted annually during July, August, or September of each year.

(2) Chronic 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 Freshwater Organisms" (EPA-600-4-91-002) as referenced in 40 CFR 136 for *Ceriodaphnia* survival and reproduction and Fathead minnow larval survival and growth.

(a) Chronic 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, 6.25% effluent).

(b) Limekiln Brook water collected immediately upstream of the area influenced by the discharge shall be used as control (0% effluent) and dilution water in the toxicity tests.

(c) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-600-4-91-002 at a hardness of 50+/-5 mg/l shall be used as a second control (0% effluent) on the toxicity tests.

(d) Daily composite samples of the discharge (final effluent following disinfection) and grab samples of Limekiln Brook 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 Limekiln Brook water used in the chronic 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 following parameters:

pH
Hardness
Alkalinity
Conductivity
Nitrogen, ammonia (total as N)
Solids, Total Suspended
Copper (total recoverable and dissolved)
Zinc (total recoverable and dissolved)

## 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 Management at the following address. 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 Environmental Protection
Bureau of Water Management, Planning and Standards Division
79 Elm Street
Hartford, CT 06106-5127

(B) Complete and accurate test data, including percent survival of test organisms in each replicate test chamber, $LC_{50}$ 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 Management 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) and Nutrient Analysis Report (NAR) forms, included herein as Attachment 2, respectively, and reported to the Bureau of Water Management at the following address. The MOR report shall also be accompanied by a detailed explanation of any violations of the limitations specified. As long as the Municipality contracts Stamford WPCF lab for nutrient analyses and Stamford supplies the DEP with the NAR for such Municipality, the Municipality need not submit an additional NAR themselves. The MOR and NAR must be received at the following address by the 15th day of the month following the month in which the data and samples are collected.

Bureau of Water Management Planning and Standards Division
Municipal Facilities Section
Connecticut Department of Environmental Protection
79 Elm St.
Hartford, CT. 06106-5127

(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-600-4-91-002 and submitted to the Department for review on or before December 31 of each calendar year to the address specified in Section 7 (A) of this permit.

## SECTION 8: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

(A) If any sample analysis indicates that an Aquatic toxicity effluent limitation has been exceeded, or that the test was invalid, a second sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Water Management (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 months 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 test results or any three test results in a twelve month period indicates that the aquatic toxicity limit has been exceeded, the permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report, to the Bureau of Water Management (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 Environmental Protection, Bureau of Water Management, Planning and Standards Division (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 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 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 Environmental Protection, Bureau of Water Management, Planning and Standards Division, Municipal Facilities Section within five days of each occurrence, or potential occurrence, of a discharge or bypass of untreated or partially treated sewage.

The written report shall contain:

(a) The nature and cause of the bypass, permit violation, treatment component failure, and/or equipment failure,

(b) the time the incident occurred and the anticipated time which it is expected to continue or, if the condition has been corrected, the duration,

(c) the estimated volume of the bypass or discharge of partially treated or raw sewage,

(d) the steps being taken to reduce or minimize the effect on the receiving waters, and

(e) the steps that will be taken to prevent reoccurrence of the condition in the future.

(D) Section 22a-430-3(j) 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 Environmental Protection, Bureau of Water Management, Planning and Standards Division 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.

(E) Section 22a-430-3(j) of the RCSA shall apply in all instances of monitoring equipment failures. In the event of any failure of the monitoring equipment including, but not limited to, loss of refrigeration 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 Environmental Protection, Bureau of Water Management, Planning and Standards Division 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.

(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 Environmental Protection, Bureau of Water Management, Planning and Standards Division, Municipal Facilities Section (860) 424-3704 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. If the failure 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 learning of the event to the Emergency Response Unit at (860) 424-3338 and the Department of Public Health at (860) 509-8000.

## SECTION 9: COMPLIANCE SCHEDULES

(A) The permittee shall achieve the final water quality-based effluent limits for Metals for DSN 001 established in Section 5 of this permit, in accordance with the following:

(1) On or before 150 days after the date of issuance of this permit, submit for the Commissioner's review and written approval, a report detailing a system-wide mass balance analysis which evaluates the relative loading of pollutants for which water quality-based effluent limits have been established in Section 5 from industrial, commercial and residential sources including consideration of the public water supply and distribution system. Also, submit for the Commissioner's review and written approval, an evaluation which determines the need to retain a consultant to perform the actions required.

(2) On or before 120 days after the date of completion of step A (1) above, and if determined necessary on the basis of the evaluation performed in step A (1) above, the permittee shall retain one or more qualified consultants acceptable to the Commissioner to prepare the documents and implement or oversee the actions required by this permit and shall, by that date, notify the Commissioner in writing of the identity of such consultants. The municipality shall retain one or more qualified consultants acceptable to the Commissioner until this permit is fully complied with, and, within ten days after retaining any consultant other than the one originally identified under this paragraph, the municipality shall notify the Commissioner in writing of the identity of such other consultant. The consultant(s) retained shall be a qualified professional engineer licensed to practice in Connecticut. The permittee shall submit to the Commissioner a description of a consultant's education, experience and training which is relevant to the work required by this permit within ten days after a request for such a description. Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable consultant unacceptable.

(3) On or before one year after the completion of step A (2) above, the permittee shall submit for the Commissioner's review and written approval a comprehensive and thorough engineering report which describes and evaluates alternative actions to achieve compliance with the Metals limitations in Section 5 of this permit. Such report shall:

(a) Evaluate alternative actions to achieve compliance including but not limited to imposing additional pretreatment requirements on industrial users, modification of potable water treatment practices and operational changes to improve removal efficiencies at the permittee's facility.

(b) State in detail the most expeditious schedule for performing each alternative.

(c) List all permits and approvals required for each alternative, including but not limited to any permits required under Sections 22a-32, 22a-42a, 22a-342, 22a-361, 22a-368 or 22a-430 of the CGS;

(d) Propose a preferred alternative or combination of alternatives with supporting justification therefor; and

(e) Propose a detailed program and schedule to perform all actions required to implement the preferred alternative, including but not limited to a schedule for submission of engineering plans and specifications for any new equipment, the start and completion of any construction activities and applying for and obtaining all permits and approvals required for such actions.

(4) Unless another deadline is specified in writing by the Commissioner, on or before 270 days after approval of the engineering report, the permittee shall (1) submit for the Commissioner's review and written approval, contract plans and specifications for the approved remedial actions, a revised list of all permits and approvals required for such actions and a revised schedule for applying for and obtaining such permits and approvals; and (2) submit applications for all permits and approvals required under Sections 22a-430 and 22a-416 of the CGS. The permittee shall obtain all required permits and approvals.

(B) The permittee shall submit to the Commissioner semi-annual status reports beginning sixty days after the date of approval of the report referenced in Section A (3) above. 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 in accordance with the approved schedule including, but not limited to, development of engineering plans and specifications, construction activity, contract bidding, operational changes, preparation and submittal of permit applications, and any other actions specified in the program approved pursuant to paragraph A (4) of this Section.

(C) The permittee shall perform the approved actions in accordance with the approved schedule, but in no event shall the approved actions be completed later than 4 years and 349 days after the date of issuance of this permit. Within fifteen days after completing such actions, the permittee shall certify to the Commissioner in writing that the actions have been completed as approved.

(D) 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.

(E) 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.

(F) Notification of noncompliance. 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 Commissioner 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.

(G) 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.

(H) Submission of documents. Any document, other than a DMR, ATMR, MOR, or NAR 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:

Roy Fredricksen, Engineer
Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127

This permit is hereby issued on the 13th day of February, 2003.

Arthur J. Rocque, Jr.
Commissioner

# ATTACHMENT 1

## Tables A through G

# 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): **3.15 cfs** | In-stream Waste Concentration (IWC): **88.4%** |

| 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 | InstantaneousLimit or Required Range | Sample Freq. | Sample Type | | |
| Alkalinity | mg/l | NA | NA | NR | NA | —— | Monthly | Grab | MOR | |
| Biochemical Oxygen Demand (5 day) October 1st through June 30th | mg/l | 30 mg/l and 15% of Influent [1] | 50 | 3/week | Daily Composite | NA | NR | NA | DMR/MOR | |
| Biochemical Oxygen Demand (5 day) July 1st through September 30th | mg/l | 20 mg/l and 15% of Influent [1] | 30 | 3/week | Daily Composite | NA | NR | NA | DMR/MOR | |
| Chlorine, Total Residual May 1st through September 30th | mg/l | 0.01[3] | 0.02[3] | 4/workday | Grab | ≤0.04 | 4/workday | Grab | DMR/MOR | * |
| Copper, Total[4] | mg/l | 0.048 | 0.072 | Weekly | Daily Composite | NA | NR | NA | DMR/MOR | * |
| Copper, Total[5] | mg/l | 0.019 | 0.029 | Weekly | Daily Composite | NA | NR | NA | DMR/MOR | * |
| Fecal Coliform May 1st through September 30th | per100 ml | NA | NA | NR | NA | see remarks (B) and (C) below | 3/week | Grab | DMR/MOR | |
| Flow, Average Daily | MGD | 15.5 | —— | Continuous[2] | Metered | NA | NR | NA | DMR/MOR | |
| Nitrogen, Ammonia (total as N) November through April | mg/l | 4.0 | —— | 3/week | Daily Composite | NA | NR | NA | DMR/MOR/NAR | |
| Nitrogen, Ammonia (total as N) May and October | mg/l | 1.9 | —— | 3/week | Daily Composite | NA | NR | NA | DMR/MOR/NAR | |
| Nitrogen, Ammonia (total as N) June | mg/l | 1.7 | —— | 3/week | Daily Composite | NA | NR | NA | DMR/MOR/NAR | |
| Nitrogen, Ammonia (total as N) July through September | mg/l | 1.5 | —— | 3/week | Daily Composite | NA | NR | NA | DMR/MOR/NAR | |
| Nitrogen, Nitrate (total as N) | mg/l | NA | —— | Monthly | Daily Composite | NA | NR | NA | NAR | |
| Nitrogen, Nitrite (total as N) | mg/l | NA | —— | Monthly | Daily Composite | NA | NR | NA | NAR | |
| Nitrogen, Total Kjeldahl | mg/l | NA | —— | Monthly | Daily Composite | NA | NR | NA | NAR | |
| Nitrogen, Total | mg/l | NA | —— | Monthly | Daily Composite | NA | NR | NA | NAR | |
| Oxygen, Dissolved | mg/l | NA | NA | NR | NA | ≥6.0 | Workday | Grab | DMR/MOR | |
| pH | S.U. | NA | NA | NR | NA | 6 - 9 | Workday | Grab | DMR/MOR | |
| Phosphate, Ortho May 1st through September 30th (see remark E) | mg/l | —— | —— | Daily | Daily Composite | NA | NR | NA | MOR/NAR | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Phosphate, Ortho October 1st through April 30th | mg/l | ---- | ---- | Monthly | Daily Composite | NA | NR | NA | NAR | |
| Phosphorus, Total May 1st through September 30th | mg/l | 1.0 | 1.5 | 3/week | Daily Composite | NA | NR | NA | DMR/MOR/NAR | |
| Phosphorus, Total October 1st through April 30th | mg/l | ---- | ---- | Monthly | Daily Composite | NA | NR | NA | NAR | |
| Solids, Settleable | ml/l | NA | NA | NA | NA | ---- | Workday | Grab | MOR | |
| Solids, Total Suspended | mg/l | 30 mg/l and 15% of Influent [1] | 50 | 3/week | Daily Composite | NA | NR | NA | DMR/MOR | |
| Temperature | °F | NA | NA | NR | NA | ---- | Workday | Grab | MOR | |
| Turbidity | NTU | NA | NA | NA | NA | ---- | Workday | Grab | MOR | |
| Zinc, Total [4] | mg/l | 0.137 | 0.207 | Weekly | Daily Composite | NA | NR | NA | DMR/MOR | * |
| Zinc, Total [5] | mg/l | 0.053 | 0.080 | Weekly | Daily Composite | NA | NR | NA | DMR/MOR | * |

**TABLE A – FOOTNOTES AND REMARKS**

**Footnotes:**

[1] The discharge shall meet the more stringent of 30 mg/l or 15% of the average monthly influent BOD5 from October 1st through June 30th and 20 mg/l or 15% of the average monthly influent BOD5 from July 1st through September 30th. The discharge shall meet the more stringent of 30 mg/l or 15% of the average monthly influent suspended solids (Table D, Monitoring Location G).

[2] The permittee shall record and report on the MOR the minimum, maximum, 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 for each sampling month.

[3] The Maximum Daily Concentration to be reported shall be determined by mathematically averaging the results of the four grab samples required above. The Average Monthly Concentration shall be determined by mathematically averaging the results of the Maximum Daily Concentrations required above.

[4] During the period beginning at the date of issuance of this permit and lasting until the completion of construction of the improvements to the Water Pollution Control Facility, the discharge shall not exceed and shall otherwise conform to specific terms and conditions listed.

[5] During the period beginning after the completion of construction of the improvements to the Water Pollution Control Facility but no later than 4 years and 349 days after permit issuance, lasting until expiration, the discharge shall also not exceed and shall otherwise conform to the specific terms and conditions listed.

**Remarks:**

(A) The use of chlorine for disinfection shall be discontinued from October 1st through April 30th except that chlorination and dechlorination equipment may be started and tested no earlier than April 15th, and any residual chlorine gas or liquid may be used up until, but no later than, October 15th. During these times in April and October the total residual chlorine of the effluent shall not be greater than 0.04 mg/l, as an instantaneous limit, and 0.02 mg/l, as a maximum daily limit. The analytical results shall be reported as an attachment to the DMR for the months of April and October. No monitoring is required for Fecal Coliform or Total Residual Chlorine from October 16th through April 14th.

(B) The geometric mean of the fecal Coliform bacteria values for the effluent samples collected in a period of thirty (30) consecutive days during the period from May 1st through September 30th shall not exceed 200 per 100 milliliters.

(C) The geometric mean of the fecal Coliform bacteria values for the effluent samples collected in a period of seven (7) consecutive days during the period from May 1st through September 30th shall not exceed 400 per 100 milliliters.

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

(E) Ortho-phosphate shall be tested for daily, during the period from May 1st to September 30th of each calendar year, using a simplified test procedure acceptable to the Commissioner, for the purpose of operational control.

# TABLE B

| Discharge Serial Number (DSN): 001-1 | | | | | Monitoring Location: T | |
|---|---|---|---|---|---|---|
| Wastewater Description: Sanitary Sewage | | | | | | |
| Monitoring Location Description: Final Effluent after dechlorination | | | | | | |
| Allocated Zone of Influence (ZOI): 3.25cfs | | | In stream Waste Concentration (IWC): 88.4% | | | |
| **PARAMETER** | **Units** | **Maximum Daily Limit** | **Sampling Frequency** | **Sample Type** | **Reporting form** | **Minimum Level Analysis See Section 6** |
| Antimony, Total | mg/l | —— | Quarterly | Daily Composite | ATMR | |
| Aquatic Toxicity, *Daphnia pulex* [1] | % | NOAEL=100% | Quarterly | Daily Composite | ATMR/DMR | |
| Aquatic Toxicity, *Pimephales promelas* [1] | % | NOAEL=100% | Quarterly | Daily Composite | ATMR/DMR | |
| Arsenic, Total | mg/l | —— | Quarterly | Daily Composite | ATMR | * |
| Beryllium, Total | 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 | * |
| 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 | |
| Phenols, Total | mg/l | —— | Quarterly | Daily Composite | ATMR | |
| Selenium, Total | mg/l | —— | Quarterly | Daily Composite | ATMR | * |
| Silver, Total | mg/l | —— | Quarterly | Daily Composite | ATMR | * |
| Thallium, Total | mg/l | —— | Quarterly | Daily Composite | ATMR | * |
| Zinc, Total | mg/l | —— | Quarterly | Daily Composite | ATMR | * |
| Remarks: [1]The results of the Toxicity Tests are recorded in % survival, however, the permittee shall report pass/fail on the DMR based on criteria in Section 6(B) of this permit. | | | | | | |

# TABLE C

| Discharge Serial Number: 001-1 | Monitoring Location: N | | |
|---|---|---|---|
| Wastewater Description: | **Secondary treatment** | | |
| Monitoring Location Description: | **Each Aeration Unit** | | |
| **PARAMETER** | **INSTANTANEOUS MONITORING** | | **REPORTING FORM** |
| | Sample Frequency | Sample Type | |
| Oxygen, Dissolved | 4/WorkDay | Grab | MOR |
| Sludge Volume Index | 1/WorkDay | Grab | MOR |
| Mixed Liquor Suspended Solids | 1/WorkDay | Grab | MOR |

# TABLE D

| 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 | NAR |
| Nitrogen, Nitrate (total as N) | mg/l | | Monthly | Daily Composite | NA | NA | NAR |
| Nitrogen, Nitrite (total as N) | mg/l | | Monthly | Daily Composite | NA | NA | NAR |
| Nitrogen, TKN | mg/l | | Monthly | Daily Composite | NA | NA | NAR |
| Nitrogen, Total | mg/l | | Monthly | Daily Composite | NA | NA | NAR |
| Solids, Total Suspended | mg/l | Monthly average | 3/week | Daily Composite | NA | NA | DMR/MOR |

# TABLE E

| Discharge Serial Number: | 001-1 | Monitoring Location: P |
|---|---|---|
| Wastewater Description: | **Primary Effluent** | |
| Monitoring Location Description: | **Primary Sedimentation Basin Effluent** | |

| PARAMETER | Units | TIME/FLOW BASED MONITORING | | INSTANTANEOUS MONITORING | | REPORTING FORM |
|---|---|---|---|---|---|---|
| | | Sample Frequency | Sample Type | Sample Frequency | Sample type | |
| Alkalinity, Total | mg/l | Monthly | Daily Composite | NA | NA | MOR |
| Biochemical Oxygen Demand (5 day) | mg/l | Weekly | Daily Composite | NA | NA | MOR |
| Nitrogen, Ammonia (total as N) | mg/l | Monthly | Daily Composite | NA | NA | NAR |
| Nitrogen, Nitrate (total as N) | mg/l | Monthly | Daily Composite | NA | NA | NAR |
| Nitrogen, Nitrite (total as N) | mg/l | Monthly | Daily Composite | NA | NA | NAR |
| Nitrogen, TKN | mg/l | Monthly | Daily Composite | NA | NA | NAR |
| Nitrogen, Total | mg/l | Monthly | Daily Composite | NA | NA | NAR |
| pH | S.U. | NA | NA | Workday | Grab | MOR |
| Solids, Total Suspended | mg/l | Weekly | Daily Composite | NA | NA | MOR |

# TABLE F

| Discharge Serial Number: **001-1** | Monitoring Location: S | | |
|---|---|---|---|
| Wastewater Description: **dewatered sludge** | | | |
| Monitoring Location Description: **dewatered sludge** | | | |
| **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 | * |
| Nitrogen, Nitrate (total as N) * | mg/kg | Bi-monthly | * |
| Nitrogen, Organic * | mg/kg | Bi-monthly | * |
| Nitrogen, Nitrite (total as N) * | mg/kg | Bi-monthly | * |
| Nitrogen, Total * | mg/kg | Bi-monthly | * |
| pH * | S.U. | Bi-monthly | * |
| 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 |
| **(*) required for composting or land application only** | | | |

# TABLE G

| Discharge Serial Number: **001-1** | Monitoring Location: L | | |
|---|---|---|---|
| Wastewater Description: **digested sludge** | | | |
| Monitoring Location Description: **each anaerobic digestion unit** | | | |
| **PARAMETER** | **INSTANTANEOUS MONITORING** | | **REPORTING FORM** |
| | Sample Frequency | Sample Type | |
| Temperature | Weekly | Grab | MOR |
| Alkalinity | Weekly | Grab | MOR |
| Volatile Acids | Weekly | Grab | MOR |
| pH | Weekly | Grab | MOR |

# ATTACHMENT 2

## MONTHLY OPERATING REPORT FORM
## AND
## NUTRIENT ANALYSIS REPORT

**Danbury WPCF** Facility Id: 034-001 Chief Plant Operator: Page 1 of MOR for permit # CT0100145 Date received: (stamped)

Sample month/year: Phone:

| | Daily Flow | | | Primary Sludge | | | Aeration Tank #1 | | | | Aeration Tank #2 | | | | Aeration Tank #3 | | | | Aeration Tank #4 | | | | Trickling Filter | Return sludge | | Waste sludge | Dry solids | | Waste accepted | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | high | low | | | high | low | | | high | low | | | high | low | | | | | | | | |
| | Max. | Min. | Total | Vol. | % | wt. | MLSS | SVI | D.O. | D.O. | MLSS | SVI | D.O. | D.O. | MLSS | SVI | D.O. | D.O. | MLSS | SVI | D.O. | D.O. | | %flow | %solids | | in | out | septic | indust |
| Units | mgd | | | gal. | solids | lbs. | | | mg/l | | | | mg/l | | | | mg/l | | | | mg/l | | % return | | | lbs | lbs | | gal | gal |
| Freq | daily | | | work day | | | work day | | 4/workday | | work day | | 4/workday | | work day | | 4/workday | | work day | | 4/workday | | work day | work day | | work day | work day | | work day | |
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| 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ave | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Primary Anaerobic Digester | | | | | | | | Secondary Anaerobic Digester | | | | | | | | BOD (5-day) | | | Suspended Solids | | | Settleable Solids | Turbidity | Chlorine Dose | | Chlorine Residual | | Fecal Coliform | Ammonia | | | D.O. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| prim pH | sec pH | prim Alk. | sec Alk. | prim temp | sec temp | prim V.A. | sec V.A. | prim pH | sec pH | prim Alk. | sec Alk. | prim temp | sec temp | prim V.A. | sec V.A. | Inf. | Prim. Eff. | Final Eff. | Inf. | Prim. Eff. | Final Eff. | Eff. | Eff. | | | high | low | | Inf. | Prim. Eff. | Eff. | Eff. |
| S.U. | S.U. | mg/l | mg/l | °F | °F | mg/l | mg/l | S.U. | S.U. | mg/l | mg/l | °F | °F | mg/l | mg/l | mg/l | | | mg/l | | | ml/l | NTU | lbs | mg/l | mg/l | | #/100 ml | mg/l | | | mg/l |
| weekly | | | | | | | | weekly | | | | | | | | 3 per week | weekly | 3 per week | 3 per week | weekly | 3 per week | 3/week | work day | Daily | | 4/work day | | 3/week | 3 per week | 1 per month | 3 per week | work-day |

| pH | | Total P | OrthoP | Total P | OrthoP | Temp | Zinc | Copper |
|---|---|---|---|---|---|---|---|---|
| P. Eff | Eff. | Eff. | Eff. | Eff. | Eff. | Eff. | Eff. | Eff. |
| S.U. | | mg/l | mg\l | mg/l | mg\l | | mg/l | mg/l |
| work day | | May 1-Sept 30 | | Oct 1-April 30 | | work-day | weekly | weekly |
| | | 3/week | daily | Monthly | | | | |
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Sludge disposal location:

_____

Please return forms to:

DEP - Bureau of Water Management

ATTN: Municipal Wastewater Monitoring Coordinator

Municipal Facilities

79 Elm Street

Hartford, CT 06106-5127

Statement of Acknowledgement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Authorized Official:

Title: Superintendent

Signature: _____

Date: _____

# TABLE B

## Nutrient Analysis Report

for compliance with NPDES permit

**Danbury WPCF** Permit # CT0100145 Flow Rate _____ mgd Sampling Date __/__/__

| Parameter | Raw Influent | | Primary Effluent | | Final Effluent | | Plant Efficiency |
|---|---|---|---|---|---|---|---|
| | mg/l | lbs/day | mg/l | lbs/day | mg/l | lbs/day | % |
| Ammonia | | | | | | | |
| **Nitrite** | | | | | | | |
| **Nitrate** | | | | | | | |
| **TKN** | | | | | | | |
| **Total Nitrogen = TKN + nitrite + nitrate** | | | | | | | |
| Orthophosphates | | | | | | | |
| Total Phosphorus | | | | | | | |

Notes: lbs/day = 8.34 x flow (mgd) x mg/l of pollutant
Flow = Total daily flow on sampling date (mgd)
Plant Efficiency = 100% x (raw influent – final effluent) / raw influent