

UIC PERMIT

**issued to**

Yale-New Haven Hospital, Inc.  
789 Howard Avenue  
New Haven, CT 06519

**Location Address:**

Yale-New Haven Shoreline Medical Center  
111 Goose Lane  
Guilford, CT 06437

**Permit ID:** UI0000515

**Permit Expires:**

**Watershed:** Sluice Creek

**Basin Code:** 5109

**SECTION 1: GENERAL PROVISIONS**

- (A) This permit is issued in accordance with section 1421 of the Federal Safe Drinking Water Act 42 USC 300h et. seq., section 22a-430 of Chapter 446k, Connecticut General Statutes (“CGS”), and Regulations of Connecticut State Agencies (“RCSA”) adopted thereunder, as amended.
- (B) Yale-New Haven Hospital, Inc., (“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)(11)(C), (D), (E) and (F), (k)(3) and (4), and (l)(2) of section 22a-430-3.

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 (Upsets)
- (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
  - (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 Transfer
  - (p) Permit revocation, denial or modification
  - (q) Variances
  - (r) Secondary Treatment Requirements
  - (s) Treatment Requirements for Metals and Cyanide
  - (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 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-157 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 of Energy & Environmental Protection (“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) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner. To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner at least thirty (30) days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner’s approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.
- (H) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (I) 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.
- (J) On or before the 10-year anniversary of the date of issuance of this permit, the Permittee shall submit for the Commissioner’s review, a comprehensive engineering report prepared by a professional engineer licensed to practice in Connecticut which evaluates the performance and operation of the on-site sewage treatment and disposal system. Such report shall include a detailed summary of the discharge monitoring reports. A physical inspection of the system shall be performed in the presence of Department of Energy and Environmental Protection (“DEEP” or “Department”) staff. Prior to conducting the comprehensive

review, the Permittee shall contact the Bureau of Materials Management and Compliance Assurance.

- (K) 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 sections 22a-430-3(a) and 22a-430-6 of the RCSA.

- (B) In addition to the above, the following definitions shall apply to this permit:

“Annual”, in the context of a sampling frequency, shall mean the sample must be taken in the month of February.

“Average Monthly Limit” means the highest allowable average of all grab samples taken during any calendar month.

“Maximum Concentration”, in the context of this permit, is defined as the maximum concentration at any time as determined by a grab sample.

“Quarterly”, in the context of a sampling frequency, shall mean sampling is required during each calendar quarter ending on the last day of March, June, September and December.

“Twice per month”, when used as a sample frequency, shall mean two samples per calendar month collected no less than twelve (12) days apart.

“Twelve Month Rolling Average”, in the context of this permit, is defined as the average of the current month’s samples averaged with the average from the previous eleven months.

## **SECTION 3: COMMISSIONER’S DECISION**

- (A) The Commissioner has made a final determination and found that the system installed for the treatment of the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on Application No. 201610302 for permit issuance received on August 23, 2016 and the administrative record established in the processing of that application.
- (B) The Commissioner hereby authorizes the Permittee to discharge a maximum flow of four-thousand-eight-hundred (4,800) gallons per day of domestic sewage in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner’s 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 in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions that may be authorized under the Federal Safe Drinking Water Act or the Connecticut General Statutes or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Safe Drinking Water Act or Connecticut General Statutes or regulations adopted thereunder, which are then applicable.

## **SECTION 4: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- (A) The use of any sewage system additive as defined in section 22a-460(g) of the CGS is prohibited unless such additive complies with section 22a-461 of the CGS. The Commissioner in no way certifies the safety or effectiveness of any sewage system additive.
- (B) Oils, greases, industrial or commercial wastes, toxic chemicals, or other substances that will adversely affect the operation of the subsurface sewage treatment and disposal system, or, which may pollute ground or surface water, shall not be discharged to the subsurface sewage treatment and disposal system.
- (C) The Permittee shall assure that groundwater affected by the subject discharge shall conform to the Connecticut Water Quality Standards.
- (D) This permit becomes effective on the date of signature.
- (E) 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, chemical feed systems, disinfection systems or any other process equipment necessary for the optimal removal of pollutants. The Permittee shall neither bypass nor fail to operate any of the approved equipment or processes without the written approval of the Commissioner.
- (F) The discharge 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 Table(s) A through (C), which are incorporated into this permit as Attachment 1.
- (G) The pH of the discharge shall not be less than 6.0 nor greater than 9.0 Standard Units at any time and shall be monitored in accordance with this permit. The Permittee shall report pH values, specifically maximum and minimum, for each day of sample collection.
- (H) The Permittee shall maintain at the facility a record of the total flow for each day of discharge and shall report on the discharge monitoring report the total flow and number of hours of discharge for the day of sample collection and the average daily flow for each sampling month.
- (I) The Permittee shall ensure that recycled water is colored blue at all times.
- (J) All samples shall be comprised of only those wastewaters described in this schedule, therefore, samples shall be taken prior to combination with wastewaters of any other type and after all approved treatment units, if applicable. All samples taken shall be representative of the discharge during standard operating conditions.
- (K) In cases where limits and sample type are specified but sampling is not required, the limits specified shall apply to all samples which may be collected and analyzed by the Department of Energy and Environmental Protection personnel, the Permittee, or other parties.
- (L) Unless a different classification of certified operator is required under a separate written approval issued by the Commissioner pursuant to RCSA Section 22a-430-3(i), the Permittee shall ensure that the wastewater treatment facility is operated by a person with a valid and effective certification in the State of Connecticut, at a minimum, as a facility Class 3 operator pursuant to C.G.S. 22a-416(d) and the regulations adopted thereunder. The Permittee shall ensure that the wastewater treatment facility is operated by such an operator with such qualifications throughout the entire life of the wastewater treatment facility.
- (M) The Permittee shall monitor, inspect and maintain the treatment facilities in accordance with Table (D), which is incorporated into this permit as Attachment 2.
- (N) The Permittee shall perform ground water monitoring in accordance with Table (E), which is incorporated

into this permit as Attachment 3.

- (O) The monitoring and sampling required within this permit is the minimum for reporting purposes only. More frequent monitoring and sampling of the treatment system may be required to operate the facility to obtain acceptable results for the parameters being monitored as required by the Operation and Maintenance Manual approved by the Commissioner.

#### **SECTION 5: SAMPLE COLLECTION AND HANDLING, ANALYTICAL TECHNIQUES, AND REPORTING REQUIREMENTS**

- (A) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved by the Environmental Protection Agency pursuant to 40 CFR 136 unless an alternative method has been approved in writing in accordance with 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 shall be analyzed in accordance with methods specified in this permit. All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.
- (B) If any sample analysis indicates that an effluent limitation specified in Section 4 of this permit has been exceeded, a second sample of the effluent shall be collected and analyzed for the parameter(s) in question and the results shall be reported to the Commissioner within thirty (30) days of the exceedance. Resampling for a permit violation is in addition to routine required sampling.
- (C) The Permittee shall enter the results of chemical analysis and treatment facilities monitoring and maintenance required by Section 4 on a Discharge Monitoring Report (DMR) provided by this office and shall submit such DMR to the Bureau of Materials Management and Compliance Assurance at the address below. Except for continuous monitoring, any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136 or other methods approved by the Commissioner shall also be included on the DMR, or as an attachment, if necessary. The report shall also include a detailed explanation of each violation of the limitations specified, the corrective actions performed, and a schedule for completing any necessary remaining corrective action. The DMR shall be received at this address by the last day of the month following the month in which the samples are taken.

**Attn: DMR Processing  
Connecticut Department of Energy and Environmental Protection  
Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division  
79 Elm Street  
Hartford, CT 06106-5127**

- (D) If this permit requires monitoring of a discharge on a calendar basis (e.g. Monthly, quarterly, etc.) but a discharge has not occurred within the frequency of sampling specified in the permit, the Permittee must submit the DMR as scheduled, indicating "NO DISCHARGE". For those permittees whose required monitoring is discharge dependent (e.g. per batch), the minimum reporting frequency is monthly. Therefore, if there is no discharge during a calendar month for a batch discharge, a DMR must be submitted indicating such by the end of the following month.
- (E) NetDMR Reporting Requirements:  
Prior to one-hundred and eighty (180) days after the issuance of this permit, the Permittee may report all chemical analysis, monitoring and maintenance data, and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit discharge monitoring reports (DMRs) and other required reports through a secure internet connection. Unless

otherwise approved in writing by the Commissioner, no later than one-hundred and eighty (180) days after the issuance of this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

(a) Submittal of NetDMR Subscriber Agreement:

On or before thirty (30) days after the issuance of this permit, the Permittee and/or the person authorized to sign the Permittee's discharge monitoring reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at [deep.netdmr@ct.gov](mailto:deep.netdmr@ct.gov) and initiate the NetDMR subscription process for electronic submission of Discharge Monitoring Report (DMR) information. Information on NetDMR is available on the Department's website at [www.ct.gov/deep/netdmr](http://www.ct.gov/deep/netdmr). On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed copy of the *Connecticut DEEP NetDMR Subscriber Agreement* to the Department.

(b) Submittal of Reports Using NetDMR:

Unless otherwise approved by the Commissioner, on or before one-hundred and eighty (180) days after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement in paragraph (C) of this Section of this permit. DMRs shall be submitted electronically to the Department no later than the last day of the month following the completed reporting period. All reports required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to the Department. The Permittee shall also electronically file any written report of non-compliance described in paragraph (B) of this Section and in the following Section of this Permit as an attachment in NetDMR. NetDMR is accessed from: <https://netdmr.epa.gov/netdmr/public/home.htm>.

(c) Submittal of NetDMR Opt-Out Requests:

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs and reports, the Commissioner may approve the submission of DMRs and other required reports in hard copy form ("opt-out request"). Opt-out requests must be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date a Permittee would be required under this permit to begin filing DMRs and other reports using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department's approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed opt-out request and such request is approved by the Department. All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at [deep.netdmr@ct.gov](mailto:deep.netdmr@ct.gov):

**Attn: NetDMR Coordinator**  
**Connecticut Department of Energy and Environmental Protection**  
**Bureau of Materials Management and Compliance Assurance**  
**Water Permitting and Enforcement Division**  
**79 Elm Street**  
**Hartford, CT 06106-5127**

(d) Non-Electronic or Hard-Copy Submission:

The results of chemical analysis and treatment facilities monitoring that are not required to be submitted electronically under Section 5 shall be submitted in hard-copy form on a DMR provided by this office. Such DMRs and other reports not required to be submitted electronically shall be reported to the Bureau of Materials Management and Compliance Assurance at the following address.

**Attn: DMR Processing  
Connecticut Department of Energy & Environmental Protection  
Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division  
79 Elm Street  
Hartford, CT 06106-5127**

- (e) Copies of all hard-copy DMRs shall be submitted concurrently to the local Health Department.
- (f) Copies of all hard-copy DMRs shall be submitted concurrently to the local Water Pollution Control Authority (hereinafter "WPCA").

#### **SECTION 6: COMPLIANCE SCHEDULE**

- (A) On or before three (3) months after issuance of this permit, the Permittee shall verify in writing to the Commissioner that the alternative sewage treatment system is operating in accordance with the approved plans and specifications and is achieving compliance with all permit limits and conditions. As part of such verification, the Permittee shall obtain written concurrence from the design engineer, the technology provider, and the wastewater treatment facility operator who will be responsible for the operation of the wastewater treatment facility.
- (B) On or before seven (7) days after issuance of this permit, the Permittee shall record on the land records of the Town of Guilford a document indicating the location of the zone of influence created by the subject discharge, as reflected in the application and approved plans and specifications for this permit. On or before one (1) month after issuance of this permit, the Permittee shall submit written verification to the Commissioner that the approved document indicating the location of the zone of influence created by the subject discharge as reflected in the application for this permit has been recorded on the land records in the Town of Guilford.
- (C) On or before seven (7) days after issuance of this permit, the Permittee shall record a copy thereof on the land records in the Town of Guilford. On or before one (1) month after issuance of this permit, the Permittee shall submit written verification to the Commissioner that this permit has been recorded on the land records in the Town of Guilford.
- (D) On or before six (6) months after the issuance of this permit, the Permittee shall submit plans and specifications for the Commissioner's review and written approval for the following repairs to the wastewater treatment system:
  - a. Installation of a Programmable Logic Controller and Human Machine Interface system;
  - b. Re-coating of the interior of the bioreactor tank and installation of a cathodic protection system;
  - c. Replacement of the existing Zenon membrane cartridges;
  - d. Replacement the existing Ultra Violet disinfection System;
  - e. The disconnection of the potable water supply from the re-use piping and connection of the potable water supply to comply with the current building code;
  - f. Implementation of an intermittent mixing system within the re-use water holding tank;
  - g. Installation of a level monitoring system and a control and flow metering system in the dosing tank feeding the leaching system; and
  - h. Installation of a new metering system for monitoring the influent, effluent and re-use flows.The Permittee shall ensure that the above repairs are completed within six (6) months of receipt of written

approval of such repairs. Within fifteen (15) days of completion of each repair listed above, the Permittee shall submit documentation of completion to the Commissioner for review and written approval.

- (E) Every two (2) years, on or before the anniversary date of the issuance of this permit, the Permittee shall submit the results of a detailed permit compliance audit to the Commissioner. Such audits shall be performed within sixty (60) days prior to the anniversary date. The compliance audits shall be performed by a qualified professional engineer licensed to practice in Connecticut with the appropriate education, experience and training that is relevant to the work required.

Each audit shall evaluate compliance with all permit terms and conditions for the preceding two-year period. The evaluation shall review all pertinent records and documents as necessary, including Discharge Monitoring Reports (DMRs), laboratory reports, operations and maintenance plans, performance logs/records, equipment specifications, maintenance schedules, engineering drawings, and spare parts inventory.

Each audit report shall include a description of all records and documents used in the evaluation, a summary of compliance with permit terms and conditions, and detailed descriptions of all remedial actions taken or proposed to address each violation or deficiency discovered.

A copy of each audit shall be submitted concurrently to the local WPCA and to the local Health Department.

This permit is hereby issued on

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Robert E. Kaliszewski  
Deputy Commissioner  
Department of Energy and Environmental Protection

cc: Guilford Health Dept.  
DMR

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ATTACHMENT 1

| <b>TABLE A</b>   |              |                              |   |                         |
|--|--------------|------------------------------|---|-------------------------|
| Discharge Serial No. 301-2A  |              |                              | Monitoring Location: G                    |                         |
| Wastewater Description: Domestic Sewage Influent to Zenon System   |              |                              |   |                         |
| Monitoring Location Description: EQ Tank (raw influent)  |              |                              |   |                         |
| Average Daily Flow: 6,000 gallons per day  |              |                              | Maximum Daily Flow: 9,500 gallons per day |                         |
| <b>INSTANTANEOUS MONITORING</b>  |              |                              |   |                         |
| <b>Parameter</b>   | <b>Units</b> | <b>Average Monthly Limit</b> | <b>Sample Type</b>                        | <b>Sample Frequency</b> |
| Biochemical Oxygen Demand  | mg/l         | ---                          | Grab                                      | Twice per month         |
| Total Suspended Solids   | mg/l         | ---                          | Grab                                      | Twice per month         |
| Total Kjeldahl Nitrogen  | mg/l         | ---                          | Grab                                      | Twice per month         |
| Orthophosphate   | mg/l         | ---                          | Grab                                      | Twice per month         |
| Total Phosphorus   | mg/l         | ---                          | Grab                                      | Twice per month         |
| pH   | SU           | ---                          | Grab                                      | Twice per month         |
| Oils & Grease  | mg/l         | ---                          | Grab                                      | Twice per month         |
| <b>ADDITIONAL NOTES:</b>   |              |                              |   |                         |
| 1. “---” in the limits column on this monitoring table means a limit is not specified, but monitoring is required and a value must be reported on the DMR. |              |                              |   |                         |

| <b>TABLE B</b>   |              |                              |   |                         |
|--|--------------|------------------------------|---|-------------------------|
| Discharge Serial No. 301-2B  |              |                              | Monitoring Location: J                    |                         |
| Wastewater Description: Effluent Intermediate Process  |              |                              |   |                         |
| Monitoring Location Description: Zenon Process Tank  |              |                              |   |                         |
| Average Daily Flow: 6,000 gallons per day  |              |                              | Maximum Daily Flow: 9,500 gallons per day |                         |
| <b>INSTANTANEOUS MONITORING</b>  |              |                              |   |                         |
| <b>Parameter</b>   | <b>Units</b> | <b>Average Monthly Limit</b> | <b>Sample Type</b>                        | <b>Sample Frequency</b> |
| pH   | SU           | ---                          | Grab                                      | Weekly                  |
| Temperature  | ° F          | ---                          | Grab                                      | Weekly                  |
| Alkalinity   | mg/l         | ---                          | Grab                                      | Weekly                  |
| Turbidity  | NTU          | ---                          | Grab                                      | Weekly                  |
| <b>ADDITIONAL NOTES:</b>   |              |                              |   |                         |
| 1. “---” in the limits column on this monitoring table means a limit is not specified, but monitoring is required and a value must be reported on the DMR. |              |                              |   |                         |

| <b>TABLE C</b>   |           |                          |                          |             |                  |
|--|-----------|--------------------------|--------------------------|-------------|------------------|
| Discharge Serial No. 301-2   |           |                          | Monitoring Location: 1   |             |                  |
| Wastewater Description: Pretreated Domestic Sewage Effluent  |           |                          |                          |             |                  |
| Monitoring Location Description: Following UV Disinfection   |           |                          |                          |             |                  |
| <b>FLOW/TIME BASED MONITORING</b>  |           |                          |                          |             |                  |
| Parameter  | Units     | Average Daily Flow Limit | Maximum Daily Flow Limit | Sample Type | Sample Frequency |
| Flow Rate (Average daily) <sup>1</sup>   | gpd       | 6,000                    | 9,500                    | Daily flow  | Continuous       |
| <b>INSTANTANEOUS MONITORING</b>  |           |                          |                          |             |                  |
| Parameter  | Units     | Average Monthly Limit    | Maximum Concentration    | Sample Type | Sample Frequency |
| Biochemical Oxygen Demand  | mg/l      | 20                       | 30                       | Grab        | Twice per month  |
| Total Suspended Solids   | mg/l      | 20                       | 30                       | Grab        | Twice per month  |
| Total Nitrogen   | mg/l      | ---                      | 10                       | Grab        | Twice per month  |
| Ammonia  | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Nitrate Nitrogen   | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Nitrite Nitrogen   | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Total Kjeldahl Nitrogen  | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Orthophosphate   | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Total Phosphorus   | mg/l      | ---                      | 15                       | Grab        | Twice per month  |
| pH   | SU        | ---                      | ---                      | Grab        | Twice per month  |
| Fecal Coliform   | col/100ml | 100                      | 200                      | Grab        | Weekly           |
| Micro C  | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Alkalinity   | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Oils & Grease  | mg/l      | ---                      | ---                      | Grab        | Twice per month  |
| Turbidity  | NTU       | ---                      | ---                      | Grab        | Twice per month  |
| <b>FOOTNOTES:</b>  |           |                          |                          |             |                  |
| <ol style="list-style-type: none"> <li>For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day of discharge and shall report on the DMR the Average Daily Flow and the Maximum Daily Flow for each month.</li> <li>Limit is based on a twelve month rolling average.</li> </ol> |           |                          |                          |             |                  |
| <b>ADDITIONAL NOTES:</b>   |           |                          |                          |             |                  |
| <ol style="list-style-type: none"> <li>“---” in the limits column on this monitoring table means a limit is not specified, but monitoring is required and a value must be reported on the DMR.</li> </ol>  |           |                          |                          |             |                  |

ATTACHMENT 2

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| <b>TABLE D<br/>INSPECTION, MONITORING AND MAINTENANCE REQUIREMENTS</b>  |   |
|---|---|
| Discharge Serial No.: 301-2   | Monitoring Location: S  |
| Wastewater Description: Domestic Sewage   |   |
| Average Daily Process Flow: 6,000 gallons per day<br>Average Daily Discharge Flow to the Leaching System: 3,201 gallons per day   | Maximum Daily Process Flow: 9,500 gallons per day<br>Maximum Daily Discharge Flow to the Leaching System: 4,800 gallons per day |
| Inspection, Monitoring, or Maintenance  | Minimum Frequency   |
| Depth of sludge in septic tank[s]   | During pump-out   |
| Pump out septic tank[s]   | Annually  |
| Mechanical inspection of pump station[s]  | Monthly   |
| Pump out pump chamber[s]  | Annually  |
| Pump out equalization tank  | Annually  |
| Test run of emergency generator   | Quarterly   |
| Pump out holding tank   | As needed   |
| Water meter readings of water usage   | Weekly  |
| Visual inspection of Zenon system   | Monthly   |
| Mechanical inspection of alarms   | Monthly   |
| Mechanical inspection of blowers  | Monthly   |
| Mechanical inspection of Micro C feed system  | Monthly   |
| Mechanical inspection of alkalinity feed system   | Monthly   |
| Visual inspection of UV-disinfection system   | Weekly  |
| Clean UV bulbs  | Monthly   |
| Visual inspection of ozone disinfection system  | Weekly  |
| Visual inspection of distribution chambers  | Monthly   |
| Visual inspection of surface condition of leaching field(s)   | Quarterly   |
| Depth of ponding in leaching field(s)   | Quarterly   |
| <b>ADDITIONAL NOTES:</b>  |   |
| <ol style="list-style-type: none"> <li>1. All inspection, monitoring, and maintenance required in this table shall be maintained in either electronic format with a copy available to the Commissioner upon request or a written copy maintained at the facility.</li> <li>2. The Town of Guilford Sanitarian shall be notified at least one week prior to pumping of septic tanks and grease traps. Verification of all pump outs shall be attached to the monitoring report and a copy of the report shall be sent to the Town of Guilford Director of Health.</li> </ol> |   |

ATTACHMENT 3

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**TABLE E  
GROUNDWATER MONITORING**

|  |              |  |                    |
|--|--------------|--|--------------------|
| <b>Discharge Serial No. 301-2</b>                            |              | <b>Monitoring Location: GW</b>                   |                    |
| <b>Groundwater Monitoring Location No.:</b><br>MW1, MW2, MW3 |              | <b>Description:</b> Downgradient monitoring well |                    |
| <b>Parameter</b>   | <b>Units</b> | <b>Minimum Frequency of Sampling</b>             | <b>Sample Type</b> |
| Fecal Coliform   | col/100ml    | Quarterly  | Grab               |
| Groundwater Depth (Standard depth below grade)               | Ft           | Quarterly  | Instantaneous      |
| Ammonia Nitrogen   | mg/l         | Quarterly  | Grab               |
| Nitrate Nitrogen   | mg/l         | Quarterly  | Grab               |
| Nitrite Nitrogen   | mg/l         | Quarterly  | Grab               |
| Total Kjeldahl Nitrogen                                      | mg/l         | Quarterly  | Grab               |
| Total Nitrogen   | mg/l         | Quarterly  | Grab               |
| pH   | S.U.         | Quarterly  | Instantaneous      |
| Total Dissolved Phosphorous                                  | mg/l         | Quarterly  | Grab               |

# DATA TRACKING AND TECHNICAL FACT SHEET

**APPLICATION No.:** 201610302

**PERMIT No.:** UI0000515

## **DISCHARGER NAME AND ADDRESS**

**APPLICANT/PERMITTEE:** Yale-New Haven Hospital, Inc.

**MAILING ADDRESS:** 789 Howard Ave., New Haven, CT 06519

**CONTACT PERSON:** Stephen Carbery (203) 688-5145

**LOCATION ADDRESS:** Yale-New Haven Shoreline Medical Center, 111 Goose Lane, Guilford, CT 06437

## **PERMIT TYPE**

New (X)                      Reissuance ( )                      Modification ( )                      Subsection-e ( )

## **PERMIT DURATION**

5 YEAR ( )                      10 YEAR (X)                      30 YEAR ( )

## **OWNERSHIP CODE**

Private (X)      Federal ( )      State ( )      Municipal (town only) ( )      Other public ( )

## **DISCHARGE CATEGORIZATION**

Point ( )      Non-point (X)      GIS # \_\_\_\_\_

NPDES ( )      Pretreat (X)      Ground Water (UIC) (X)      Ground Water (Other) ( )

Major ( )      Significant Minor ( )      Minor (X)

## **UIC PERMIT INFORMATION**

Total Wells      **1**      Well Type **5W12**

## **DEEP STAFF ENGINEER/ANALYST**

Lauren Jones

## **NATURE OF BUSINESS GENERATING DISCHARGE**

Yale- New Haven Shoreline Medical Center offers a comprehensive range of outpatient healthcare services.

## **PROCESS AND TREATMENT DESCRIPTION (by DSN)      AT(X)      RECYCLE (X)**

DSN 301-2 represents the discharge from the existing alternative sewage treatment system consisting of a trash trap, flow equalization tanks, pump chambers, and Zenon Wastewater Treatment System. The Zenon System utilizes aerobic and anoxic biological treatment processes, membrane filtration and ozone and ultraviolet disinfection. The treated effluent from the Zenon System is either discharged to an engineered leaching system or recycled for use as flush water and has a discharge limit of 4,800 gallons per day and processing capacity of 9,500 gallons per day.

The permit contains a compliance schedule for the completion of the following modifications/repairs:

1. Installation of a Programmable Logic Controller and Human Machine Interface;
2. Installation of a cathodic protection system and re-coating of the interior of the bioreactor tank;
3. Replacement of membranes;
4. Replacement of the Ultra Violet Disinfection Unit;
5. Disconnection of the potable water supply from the re-use piping and the re-plumbing of the

## **DATA TRACKING AND TECHNICAL FACT SHEET**

- potable water supply to meet current building code;
6. Installation of an intermittent mixing system in the water holding tank;
  7. Installation of level monitoring, and a control and flow metering system in the dosing tank to the leaching system; and
  8. Installation of meters for Zenon influent, treated effluent and re-use.

|                                   |                               |        |                        |
|-----------------------------------|-------------------------------|--------|------------------------|
| <b><u>COMPLIANCE SCHEDULE</u></b> | YES (X)                       | NO ( ) |                        |
| Pollution Prevention ( )          | Treatment Requirement ( )     |        | Water Conservation ( ) |
| Permit Steps ( )                  | Water Quality Requirement ( ) |        | Remediation ( )        |
| Audit Language (X)                | Other (X)                     |        |                        |

### **RESOURCES USED TO DRAFT PERMIT**

- Federal Effluent Limitation Guideline 40CFR  
name of category
- Performance Standards
- Federal Development Document  
name of category
- Treatability Manual
- Department File Information
- Connecticut Water Quality Standards
- Anti-degradation Policy
- Coastal Management Consistency Review Form
- Other – Explain

### **BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS**

- Best Judgement (See Other Comments)
- Case by Case Determination (See Other Comments)

### **OTHER COMMENTS**

The treatment plant is required to meet limits on BOD, TSS, total nitrogen, phosphorous and bacteria prior to being reused as flush water or discharged to the leachfield. The proposed permit will require biennial compliance audits to evaluate compliance with all permit terms and conditions.

The site was formerly owned by Goose Lane Medical, LLC, which operated the existing alternative sewage treatment system under wastewater discharge permit no. UI0000400. The system has experienced performance problems with bacteria and nutrient removal, and the discharge permit expired in 2014. Yale-New Haven Hospital, Inc. purchased the site in 2016 and performed significant upgrades to the wastewater treatment plan including: securing of outside electrical shutoffs; replacement of pumps, gauges and fans; installation of check valves; and performance of an inorganic cleaning of the membranes.

## **DATA TRACKING AND TECHNICAL FACT SHEET**

The remaining work necessary to complete the upgrade/repair of the wastewater treatment plant can readily be performed by Yale under a permit compliance schedule (the work remaining is enumerated in the "Process and Treatment" section above.) The submission of plans and specifications for this work is will be required within six months after permit issuance.

### **PERMIT FEES**

Discharge Code 312000a      Representing DSN 301-2      Annual Fee \$1,110

### **PROJECT HISTORY**

Application received on August 23, 2016

Notice of Sufficiency signed September 6, 2016



**NOTICE OF TENTATIVE DECISION  
INTENT TO ISSUE A STATE PERMIT AND AN UNDERGROUND INJECTION CONTROL  
PERMIT FOR THE FOLLOWING DISCHARGE INTO THE WATERS OF  
THE STATE OF CONNECTICUT**

**TENTATIVE DECISION**

The Commissioner of Energy and Environmental Protection hereby gives notice of a tentative decision to issue a permit based on an application submitted by **Yale-New Haven Hospital, Inc.** ("the applicant") under section 22a-430 of the Connecticut General Statutes for a permit to discharge into the waters of the state.

In accordance with applicable federal and state law, the Commissioner has made a tentative decision that modification for repairs and upgrades to the existing alternative sewage treatment system to treat the domestic sewage discharge would protect the waters of the state from pollution. The Commissioner proposes to require the applicant to submit plans and specifications for the proposed treatment system modifications within six (6) months after any final determination to issue the permit, and such additional information as the Commissioner deems necessary to ensure the protection of the waters of the state from pollution. If such plans are approved by the Commissioner and the treatment system is constructed in full compliance with and within two (2) years after such approval, the Commissioner proposes to issue a permit for the discharge to groundwaters in the Sluice Creek watershed.

The proposed permit, if issued by the Commissioner, will require that all wastewater be treated to meet the applicable effluent limitations, and periodic monitoring to demonstrate that the discharge will not cause pollution.

**APPLICANT'S PROPOSAL**

Yale-New Haven Hospital, Inc. presently discharges a maximum of 4,800 gallons per day of wastewaters to the groundwaters in the Sluice Creek watershed from operations at Yale-New Haven Shoreline Medical Center, which offers a comprehensive range of outpatient healthcare services. The facility also operates an alternative wastewater treatment plant, which incorporates water reuse, that has a processing capacity of 9,500 gallons per day.

The name and mailing address of the permit applicant are: **Yale-New Haven Hospital, Inc., 789 Howard Ave, New Haven, CT 06519.**

The activity takes place at: **Yale-New Haven Shoreline Medical Center, 111 Goose Lane, Guilford, CT 06437.**

**REGULATORY CONDITIONS**

**Type of Treatment:** Yale-New Haven Shoreline Medical Center is served by an alternative treatment process consisting of a trash trap, flow equalization tanks, pump chambers, and Zenon Wastewater Treatment System. The Zenon System utilizes aerobic and anoxic biological treatment processes, membrane filtration and ozone and ultraviolet disinfection. The treated effluent from the Zenon System is either discharged to an engineered leaching system or recycled for use as flush water.

**COMMISSIONER'S AUTHORITY**

The Commissioner of Energy and Environmental Protection is authorized to approve or deny such permits pursuant to section 22a-430 of the Connecticut General Statutes and the Water Discharge Permit Regulations (section 22a-430-3 and 4 of the Regulations of Connecticut State Agencies), and section 1421 of the Federal Safe Drinking Water Act 42 USC *et. seq.*

**INFORMATION REQUESTS**

The application has been assigned the following numbers by the Department of Energy and Environmental Protection. Please use these numbers when corresponding with this office regarding this application.

APPLICATION NO. 201610302 PERMIT ID NO. UI0000515

Interested persons may obtain copies of the application from Stephen Carbery, Yale-New Haven Hospital, Inc., 789 Howard Ave., New Haven, CT 06519; Phone: (203) 688-5145

The application is available for inspection by contacting Lauren Jones (860) 424-3155, at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106-5127 from 8:30 - 4:30, Monday through Friday.

Any interested person may request in writing that his or her name be put on a mailing list to receive notice of intent to issue any permit to discharge to the surface waters of the state. Such request may be for the entire state or any geographic area of the state and shall clearly state in writing the name and mailing address of the interested person and the area for which notices are requested.

**PUBLIC COMMENT**

Prior to making a final decision to approve or deny any application, the Commissioner shall consider written comments on the application from interested persons that are received within 30 days of this public notice. Written comments should be directed to Lauren Jones, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127. 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 receipt of a petition signed by at least twenty-five persons. Notice of any public hearing shall be published at least 30 days prior to the hearing.

Petitions for a hearing should include the application number noted above and also identify a contact person to receive notifications. Petitions 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* to: DEEP Office of Adjudications, 79 Elm Street, 3<sup>rd</sup> floor, Hartford, CT, 06106-5127. Petitions cannot be sent by fax or email. Additional information can be found at [www.ct.gov/deep/adjudications](http://www.ct.gov/deep/adjudications).

**The Connecticut Department of Energy and Environmental Protection is an Affirmative Action and Equal Opportunity Employer that is committed to complying with the Americans with Disabilities Act. To request an accommodation contact us at (860) 418-5910 or [deep.accommodations@ct.gov](mailto:deep.accommodations@ct.gov).**

  
Oswald Inglesse, Jr.  
Director  
Water Permitting and Enforcement Division  
Bureau of Materials Management and Compliance Assurance

Dated:

**MAR 07 2018**