National Pollutant Discharge Elimination System Permit
issued to

Permittee:
FirstLight CT Housatonic LLC
143 West Street Suite E
New Milford, CT 06776

Location Address:
Rocky River Station
200 Kent Road
New Milford, CT 06776

Permit ID: CT0030287

Issuance Date: Date of Signature

Receiving Water Body: Housatonic River

Effective Date: 1st of the month after Issuance Date

Receiving Water Body ID: CT6000-00_03

Permit Expires: 5 years from effective date

SECTION 1: GENERAL PROVISIONS

1.1 This permit is reissued in accordance with Section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and Section 402(b) of the Clean Water Act ("CWA"), 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 National Pollutant Discharge Elimination System ("NPDES") permit program.

1.2 **FirstLight CT Housatonic LLC** ("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 subsections (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.

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
(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
(s) Treatment Requirements

1.3 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.

1.4 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-157b of the CGS.

1.5 The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection ("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.

1.6 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.

1.7 Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

1.8 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.

1.9 The Permittee shall operate and maintain its collection and treatment system in accordance with its Operation and Maintenance Plan and with any approvals issued in accordance with RCSA Section 22a-430-3(i)(3). The Permittee shall revise and maintain the Operation and Maintenance Plan upon the Commissioner's request or to address equipment or operational changes in accordance with RCSA Section 22a-430-3(f)(2).

1.10 The Permittee shall implement its Spill Prevention and Control Plan in accordance with RCSA Section 22a-430-3(p) and 22a-430-4(c)(10). The plan shall include practices, procedures and facilities designed to prevent, minimize and control spills, leaks or such other unplanned releases of all toxic or hazardous substances and any other substances to prevent pollution of the waters of the state. Such requirements shall, unless otherwise allowed by the Commissioner, apply to all facilities used for storing, handling, transferring, loading or unloading such substances, including manufacturing areas. The Permittee shall revise and maintain the Spill Prevention and Control Plan upon the Commissioner's request or to address equipment or operational changes.

SECTION 2: DEFINITIONS

2.1 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.

2.2 In addition to the above, the following definitions shall apply to this permit:

"40 CFR" means Title 40 of the Code of Federal Regulations.

"Annually" when used as a sampling frequency in Tables A and B of this permit, means that sampling is required in the month of March.

"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.

Connecticut Water Quality Standards means the regulations adopted under RCSA Sections 22a-426-1 through 22a-426-9, as amended.

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

"Dilution Factor" means the inverse of the "Instream Waste Concentration".

"DMR" means Discharge Monitoring Report.

"IC" means "Inhibition Concentration".

"IC_{25}" means a point estimate of the toxicant concentration that would cause a twenty-five (25) percent reduction in a non-lethal biological measurement of the test organism, such as reproduction or growth.

"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" ("IWC%") means the concentration (as a percent) of the effluent in the receiving water.

"LC" means Lethal Concentration

"LC_{50}" means the concentration lethal to fifty (50) percent of the test organisms during a specific period.

"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.

"No Observed Effect Concentration" ("NOEC") means the highest concentration of an effluent or toxicant to which organisms are exposed in a life cycle or partial life-cycle test, that causes no observable adverse effects on the test organisms.

"Quarterly", when used as a sampling frequency in this permit, means that sampling is required in the months of March, June, September, and December.

"Reporting Frequency" means the frequency at which monitoring results must be provided.

"Semiannual" when used as a sampling frequency in this permit, means that sampling is required in the months of February and August.

SECTION 3: COMMISSIONER'S DECISION

3.1 The Commissioner has issued a final determination and found that continuance of the existing system to treat the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on Application No. 201502735 for permit reissuance received on April 16, 2015, and the administrative record established in the processing of that application.

3.2 Upon the effective date of this permit and continuing until this permit expires or is modified or revoked, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of this permit, the information provided in Application No. 20152735, received by the Commissioner on April 16, 2015, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent, for the discharge and/or activities authorized by, or associated with this Permit.

3.3 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 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 the CGS or regulations adopted thereunder which are then applicable.

3.4 This permit contains a determination under Section 316(b) of the Federal Water Pollution Control Act, 33 U.S.C. § 1326(b) regarding cooling water intake structures and Conn. Gen. Stat. § 22a-430(a), and compliance with this permit is sufficient to assure the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife in and on the receiving waters. Based on the evaluation detailed in the fact sheet, DEEP has determined that the facility employs BTA pursuant to 40 CFR § 125.90.

3.5 Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

4.1 The Permittee shall assure that the surface water affected by the subject discharge shall conform to the *Connecticut Water Quality Standards*.

4.2 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.

4.3 No discharge shall cause acute or chronic toxicity in the receiving waterbody beyond any zone of influence specifically allocated to that discharge in this permit.

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

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5.1 The discharge is restricted by and shall be monitored in accordance with the following tables in this section. The wastewater discharge shall not exceed the effluent limitations in these tables and shall otherwise conform to the specific terms and conditions listed in the tables. The Permittee shall comply with the "Footnotes" and "Remarks" noted in the tables that follow. Such footnotes and remarks are enforceable like any other term or condition of this permit.

5.2 The wastewaters authorized/approved by this permit shall be collected, treated, and discharged in accordance with this permit and with any approvals issued by the Commissioner or his/her authorized agent for the discharges and activities authorized by or associated with this permit. Any wastewater discharges not expressly identified in these tables or otherwise approved to be discharged by this permit shall not be authorized by this permit.

5.3 All samples shall be comprised of only the wastewater described in these tables. Samples shall be collected prior to combination with receiving waters or wastewater of any other type, and after all approved treatment units, if applicable. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Collection of permit-required effluent samples in any location other than the authorized location noted in this permit shall be a violation of this permit.

5.4 In cases where limits and sample type are specified but sampling is not required by this permit, the limits specified shall apply to all samples which may be collected and analyzed by the Department of Energy and Environmental Protection ("DEEP") personnel, the Permittee, or other parties.

5.5 In the case of facility flooding the Permittee can discharge through DSN 102. The Permittee to the best of their abilities will sample the discharge from this DSN without placing the safety of personnel at risk.

Table A

Discharge Serial Number: DSN 101-1 | **Monitoring Location:** 1 (EXTERNAL OUTFALL)

Wastewater Description: Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1 & 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: End of pipe discharge from sump pump #1 or sump pump #2 | **Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

Discharge is to: **Housatonic River**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL[2]
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Copper, Total	01042	µg/l	8.8	20.4	Monthly	Daily Composite	NA	NR	Grab	3
Flow, Total[3]	82220	gpd	----	1,440,000	Daily	Total Daily Flow	NA	NR	NA	
Lead, Total	01051	µ/l	NA	NA	NR	Daily Composite	----	Monthly	Grab	1
Oil and Grease, Total	00556	mg/l	NA	10.0	Monthly	Grab Sample Average	15.0	NR	Grab	
pH, Minimum	61942	SU	NA	NA	NR	NA	6.5	Monthly	Grab	
pH, Maximum	91941	SU	NA	NA	NR	NA	8.0	Monthly	Grab	
Temperature	74014	◦ F	NA	NA	NR	NA	----	Monthly	Grab	
Tetrachloroethylene	34475	µg/l	NA	NA	NR	NA	----	Semi-Annual	Grab	
Zinc, Total	01092	mg/l	NA	NA	NR	Daily Composite	----	Quarterly	Grab	5

TABLE A FOOTNOTES AND REMARKS

Footnotes:

[1] The first entry in this column is the "Sample Frequency. If a "Reporting Frequency" does not follow this entry, then the "Reporting Frequency" is monthly.
[2] Refer to Section 6.3 of this permit. The minimum levels ("MLs") identified in this table represent the highest acceptable MLs that shall be achieved by the Permittee's analytical methods. Actual MLs reported by the laboratory must be reported as a comment on the DMR. Detected concentrations less than the laboratory ML shall be reported on the DMR in accordance with Section 6.5.
[3] For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day and the hours per day each pump ran. The Permittee shall submit the record as an attachment to each months NetDMR.

Remarks:

1. Abbreviations used for units are as follows: gpd means gallons per day; mg/L means milligrams per liter; SU means Standard Units; µg/L means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5.4 of this permit.
2. If "---" is noted in the limit's column in the table, this means that a limit is not specified but a value must be reported on the DMR.
3. In calculating average concentrations, use zeros for values reported as less than the ML.
4. "Continuous", used in this table as a "Sample" or "Sample Type", means monitoring that produces one or more data points in fifteen minutes or less.
5. Each sump pump shall be sampled a minimum of 3 times per year. Include a note in the attachments of NETDMR stating which pump was sampled.
6. A "Daily Composite" shall comprise of all grab samples taken during the monitoring day. A grab sample for a "Daily Composite" shall be taken for every hour of discharge.

Table B – Acute Toxicity Monitoring

Discharge Serial Number: DSN 101-AT

Monitoring Locations: T – Acute toxicity effluent results and chemical analyses

Wastewater Description: Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1 & 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: End of pipe discharge from sump pump #1 or sump pump #2

Discharge is to: Housatonic River | **Zone of Influence:** NA | **Instream Waste Concentration:** 100% | **Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL[5]
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Whole Effluent Toxicity (WET)										
Acute Aquatic Toxicity[6] *Daphnia pulex*, *CTC=100%* NOAEL	TOM3D	%	NA	NA	NR	Daily Composite	≥90	Semi-Annual	Grab	
Acute Aquatic Toxicity[6] *Pimephales promelas*, *CTC=100%* NOAEL	TOM6C	%	NA	NA	NR	Daily Composite	≥90	Semi-Annual	Grab	
Chemical Analyses Required with Acute Whole Effluent Toxicity Monitoring – See Section 7.1.6. for Acute Testing [7]										
Date of Acute WET Chemistry Sample Collection[8]	51883	YYYYMMDD	NA	NA	NR	Calculated	---	Semi-Annual	Grab	
Alkalinity	00410	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Chlorine, Total Residual	50060	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Copper, Total	01042	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	3
Dissolved Oxygen	00300	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Hardness, Total	00900	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Lead, Total	01051	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	1
pH	00400	SU	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Specific Conductance	51409	uMhos	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Temperature	00011	Deg. F.	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Total Suspended Solids	00530	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	
Zinc, Total	01092	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	5

Table B – Acute Toxicity Monitoring

Discharge Serial Number: DSN 101-AT	**Monitoring Locations:** T – Acute toxicity effluent results and chemical analyses

Wastewater Description: Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1 & 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: End of pipe discharge from sump pump #1 or sump pump #2

Discharge is to: Housatonic River	**Zone of Influence:** NA	**Instream Waste Concentration:** 100%	**Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

PARAMETER	**NET DMR CODE**	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING**			**MINIMUM LEVEL[5]**
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	

TABLE B FOOTNOTES AND REMARKS

Footnotes:

[1] WET limits are expressed as a minimum daily limit, meaning the minimum allowable daily discharge over the course of the 24-hour sampling period. Chemical results analyzed in conjunction with WET tests shall be reported as the max value collected during the 24-hour sampling period.

[2] The first entry in this column is the "Sample Frequency". If a "Reporting Frequency" does not follow this entry and the "Sample Frequency" is more frequent than monthly, then the "Reporting Frequency" is monthly. If the "Sample Frequency" is specified as monthly, or less frequent, then the "Reporting Frequency" is monthly.

[3] If more than one toxicity sample is collected during a single month, report subsequent WET and chemistry results as an attachment to the DMR in accordance with Section 8.2 of this permit.

[4] Daily composite samples shall be collected for acute toxicity tests consistent with the methodology outlined in Section 7.1 of this permit.

[5] "Minimum Level" refers to Section 6.3 of this permit.

[6] Acute toxicity testing shall be conducted in accordance with Section 7.1 of this permit. The NOAEL results (in % Survival) for the acute toxicity testing shall be reported on the DMR. The Aquatic Toxicity Monitoring Report ("ATMR") shall be completed for each toxicity testing event and submitted in accordance with Section 8.2 of this permit.

[7] Chemical analyses shall be conducted on samples used in the acute toxicity tests. These analyses shall be conducted on all samples used in the acute toxicity test and reported under Monitoring Location T. Results shall also be included on the ATMR and submitted in accordance with Section 8.2 of this permit.

[8] The Permittee shall report the date of sample collection for the acute toxicity test and associated chemistry data in the format: year month day (YYYYMMDD).

Remarks:

1. Abbreviations used for units are as follows: kg/day means kilograms per day; lbs/day means pounds per day; mg/L means milligrams per liter; mgd means millions of gallons per day; SU means Standard Units; mg/L means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5.4 of this permit); RDS means Range During Sampling; RDM means Range During Month.
2. If "---" is noted in the limits column in the table, this means that a limit is not specified but a value must be reported on the DMR.
3. Analyses that indicate that a parameter was not detected or that was detected less than the noted ML shall be reported in accordance with Section 6.5.
4. A "Daily Composite" shall comprise of all grab samples taken during the monitoring day. A grab sample for a "Daily Composite" shall be taken for every hour of discharge.

Table C – Chronic Toxicity Monitoring

Discharge Serial Number: **DSN 101-CT**

Monitoring Locations:
Y – Chronic toxicity effluent results
O – Day 1 chronic toxicity chemical analyses
P – Day 3 chronic toxicity chemical analyses
Q – Day 5 chronic toxicity chemical analyses
R – Day 1 upstream monitoring
S – Day 3 upstream monitoring
T – Day 5 upstream monitoring

Wastewater Description: Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1& 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: End of pipe discharge from sump pump #1 or sump pump #2

Discharge is to: Housatonic River | **Zone of Influence:** NA | **Instream Waste Concentration:** 100% | **Outfall Location:** Latitude (41° 37’ 38.38”) and Longitude (73° 04’ 10.53”)

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL[5]	MONITORING LOCATION
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported		
Whole Effluent Toxicity (WET)											
Chronic Aquatic Toxicity (Survival)[6] *Ceriodaphnia dubia*, C-NOEC	TRP3B	%	NA	NA	NR	Daily Composite	----	Semi-Annual	Grab		Y
Chronic Aquatic Toxicity (Reproduction)[6] *Ceriodaphnia dubia*, C-NOEC	TPP3B	%	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		Y
Chronic Aquatic Toxicity (Survival)[6] *Pimephales promelas*, C-NOEC	TRP6C	%	NA	NA	NR	Daily Composite	----	Semi-Annual	Grab		Y
Chronic Aquatic Toxicity (Growth)[6] *Pimephales promelas*, C-NOEC	TPP6C	%	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		Y
Chemical Analyses Required with Chronic Whole Effluent Toxicity Monitoring – See Section 7.2.7. for Chronic Testing [7]											
Date of Chronic WET Chemistry Sample Collection[8]	51883	YYYYMMDD	NA	NA	NR	Calculated	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Alkalinity	00410	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Chlorine, Total Residual	50060	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Copper, Dissolved	01040	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W

Table C – Chronic Toxicity Monitoring

Discharge Serial Number: **DSN 101-CT**

Monitoring Locations:
Y – Chronic toxicity effluent results
O – Day 1 chronic toxicity chemical analyses
P – Day 3 chronic toxicity chemical analyses
Q – Day 5 chronic toxicity chemical analyses
R – Day 1 upstream monitoring
S – Day 3 upstream monitoring
T – Day 5 upstream monitoring

Wastewater Description: Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1& 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: End of pipe discharge from sump pump #1 or sump pump #2

Discharge is to: Housatonic River | **Zone of Influence:** NA | **Instream Waste Concentration:** 100% | **Outfall Location:** Latitude (41° 37’ 38.38”) and Longitude (73° 04’ 10.53”)

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINI-MUM LEVEL[5]	MONIT-ORING LOCA-TION
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported		
Copper, Total	01042	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	3	O, P, Q; R, S, T; U, V, W
Hardness, Total	00900	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Lead, Dissolved	01049	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Lead, Total	01051	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	1	O, P, Q; R, S, T; U, V, W
Nitrogen, Ammonia (total as N)	00610	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Nitrogen, Nitrate (total as N)	00620	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
pH	00400	SU	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W

Table C – Chronic Toxicity Monitoring

Discharge Serial Number: **DSN 101-CT**

Monitoring Locations:
Y – Chronic toxicity effluent results
O – Day 1 chronic toxicity chemical analyses
P – Day 3 chronic toxicity chemical analyses
Q – Day 5 chronic toxicity chemical analyses
R – Day 1 upstream monitoring
S – Day 3 upstream monitoring
T – Day 5 upstream monitoring

Wastewater Description: Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1& 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: End of pipe discharge from sump pump #1 or sump pump #2

Discharge is to: Housatonic River | **Zone of Influence:** NA | **Instream Waste Concentration:** 100% | **Outfall Location:** Latitude (41° 37’ 38.38”) and Longitude (73° 04’ 10.53”)

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINI-MUM LEVEL[5]	MONIT-ORING LOCA-TION
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported		
Phosphorus, Total	00665	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Specific Conductance	51409	uMhos	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Temperature	00011	Deg. F.	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Total Suspended Solids	00530	mg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Zinc, Dissolved	01090	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		O, P, Q; R, S, T; U, V, W
Zinc, Total	01092	µg/L	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab	5	O, P, Q; R, S, T; U, V, W

Table C – Chronic Toxicity Monitoring

Discharge Serial Number: **DSN 101-CT**	Monitoring Locations: **Y – Chronic toxicity effluent results** **O – Day 1 chronic toxicity chemical analyses** **P – Day 3 chronic toxicity chemical analyses** **Q – Day 5 chronic toxicity chemical analyses** **R – Day 1 upstream monitoring** **S – Day 3 upstream monitoring** **T – Day 5 upstream monitoring**

Wastewater Description: Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1& 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: End of pipe discharge from sump pump #1 or sump pump #2

Discharge is to: Housatonic River	**Zone of Influence:** NA	**Instream Waste Concentration:** 100%	**Outfall Location:** Latitude (41° 37’ 38.38”) and Longitude (73° 04’ 10.53”)

PARAMETER	**NET DMR CODE**	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING**			**MINI-MUM LEVEL[5]**	**MONIT-ORING LOCA-TION**
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported		

TABLE C FOOTNOTES AND REMARKS

Footnotes:

[1] WET limits are expressed as a minimum daily limit, meaning the minimum allowable daily discharge over the course of the 24-hour sampling period. Chemical results analyzed in conjunction with WET tests shall be reported as the max value collected during the 24-hour sampling period.

[2] The first entry in this column is the “Sample Frequency”. If a “Reporting Frequency” does not follow this entry and the “Sample Frequency” is more frequent than monthly, then the “Reporting Frequency” is monthly. If the “Sample Frequency” is specified as monthly, or less frequent, then the “Reporting Frequency” is monthly.

[3] If more than one toxicity sample is collected during a single month, report subsequent WET and chemistry results as an attachment to the DMR in accordance with Section 8.2 of this permit.

[4] Daily composite samples shall be collected for chronic toxicity tests consistent with the methodology outlined in Section 7.2 of this permit.

[5] “Minimum Level” refers to Section 6.3 of this permit.

[6] Chronic toxicity testing shall be conducted in accordance with Section 7.2 of this permit. The C-NOEC (Chronic-No Observed Effect Concentration) in % effluent and IC_{25} results in % effluent for the chronic toxicity test shall be reported on the DMR. The ATMR shall be completed for each chronic toxicity testing event and submitted in accordance with Section 8.2 of this permit.

[7] Chemical analyses shall be conducted on all samples used in the chronic toxicity tests. These analyses shall be conducted on an undiluted aliquot of each effluent sample and each sample of upstream receiving water used in the chronic toxicity test. Results for effluent sampling from day 1, day 3, and day 5 of the chronic toxicity test shall be reported under Monitoring Location O, P, and Q, respectively. Receiving water (upstream) results from day 1, day 3, and day 5 of sampling shall be reported under reported under Monitoring Location R, S, and T, respectively. Results shall also be included on the ATMR and submitted in accordance with Section 8.2 of this permit.

[8] The Permittee shall report the dates of sample collection for each day of chronic toxicity test chemistry sampling (days 1, 3, and 5) in the format: year month day (YYYYMMDD).

Remarks:

1. Abbreviations used for units are as follows: kg/day means kilograms per day; lbs/day means pounds per day; mg/L means milligrams per liter; mgd means millions of gallons per day; SU means Standard Units; mg/L means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5.4 of this permit); RDS means Range During Sampling; RDM means Range During Month.
2. If “---” is noted in the limits column in the table, this means that a limit is not specified but a value must be reported on the DMR.
3. Analyses that indicate that a parameter was not detected or that was detected less than the noted ML shall be reported in accordance with Section 6.5.
4. A “Daily Composite” shall comprise of all grab samples taken during the monitoring day. A grab sample for a “Daily Composite” shall be taken for every hour of discharge.

Table D

Discharge Serial Number: DSN 102-1 | **Monitoring Location:** 1 (EXTERNAL OUTFALL)

Wastewater Description: Emergency discharge under flooding conditions, containing floodwater and the following sources of wastewater: service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Units 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1 & 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: Outlet from roof drain line | **Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

Discharge is to: **Housatonic River**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level[2]
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Copper, Total	01042	µg/l	NA	NA	NR	Daily Composite	----	Monthly	Grab	3
Flow, Total	82220	gpd	----	1,656,000	Daily	Daily Flow	NA	NR	NA	
Lead, Total	01051	µg/l	NA	NA	NR	Daily Composite	----	Monthly	Grab	1
Oil and Grease, Total	00556	mg/l	NA	10.0	NR	Grab Sample Average	15.0	Monthly	Grab	
pH, Minimum	61942	SU	NA	NA	NR	NA	6.5	Monthly	Grab	
pH, Maximum	91941	SU	NA	NA	NR	NA	8.0	Monthly		
Temperature	74014	◦ F	NA	NA	NR	NA	----	Monthly	Grab	
Tetrachloroethylene	34475	µg/l	NA	NA	NR	NA	----	Monthly	Grab	
Zinc, Total	01092	mg/l	NA	NA	NR	Daily Composite	----	Monthly	Grab	5

TABLE D FOOTNOTES AND REMARKS

Footnotes:

[1] The first entry in this column is the "Sample Frequency. If a "Reporting Frequency" does not follow this entry, then the "Reporting Frequency" is monthly.
[2] Refer to Section 6.3 of this permit. The minimum levels ("MLs") identified in this table represent the highest acceptable MLs that shall be achieved by the Permittee's analytical methods. Actual MLs reported by the laboratory must be reported as a comment on the DMR. Detected concentrations less than the laboratory ML shall be reported on the DMR in accordance with Section 6.5.

Remarks:

1. Abbreviations used for units are as follows: gpd means gallons per day; mg/L means milligrams per liter; SU means Standard Units; µg/L means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5.4 of this permit.
2. If "---" is noted in the limits column in the table, this means that a limit is not specified but a value must be reported on the DMR.
3. In calculating average concentrations, use zeros for values reported as less than the ML.
4. "Continuous", used in this table as a "Sample" or "Sample Type", means monitoring that produces one or more data points in fifteen minutes or less.
5. This discharge point is only to be used in the event of a flooding emergency at the station. The discharge must be managed in accordance with the terms and conditions of Section 10.1 of this permit.
6. A "Daily Composite" shall comprise of all grab samples taken during the monitoring day. A grab sample for a "Daily Composite" shall be taken for every hour of discharge.

Table E – Acute Toxicity Monitoring

Discharge Serial Number: DSN 102-AT

Monitoring Locations: T – Acute toxicity effluent results and chemical analyses

Wastewater Description: Emergency discharge under flooding conditions, containing floodwater and the following sources of wastewater: service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Units 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1 & 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: Outlet from roof drain line

Discharge is to: Housatonic River | **Zone of Influence:** NA | **Instream Waste Concentration:** 100% | **Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL[5]
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Whole Effluent Toxicity (WET)										
Acute Aquatic Toxicity[6] *Daphnia pulex*, *CTC=100%* NOAEL	TOM3D	%	NA	NA	NR	Daily Composite	≥90%	Monthly	Grab	
Acute Aquatic Toxicity[6] *Pimephales promelas*, *CTC=100%* NOAEL	TOM6C	%	NA	NA	NR	Daily Composite	≥90%	Monthly	Grab	
Chemical Analyses Required with Acute Whole Effluent Toxicity Monitoring – See Section 7.1.6. for Acute Testing [7]										
Date of Acute WET Chemistry Sample Collection[8]	51883	YYYYMMDD	NA	NA	NR	Calculated	---	Monthly	Grab	
Alkalinity	00410	mg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	
Chlorine, Total Residual	50060	mg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	
Copper, Total	01042	µg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	3
Dissolved Oxygen	00300	mg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	
Hardness, Total	00900	mg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	
Lead, Total	01051	µg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	1
pH	00400	SU	NA	NA	NR	Daily Composite	---	Monthly	Grab	
Specific Conductance	51409	uMhos	NA	NA	NR	Daily Composite	---	Monthly	Grab	
Temperature	00011	Deg. F.	NA	NA	NR	Daily Composite	---	Monthly	Grab	

Table E – Acute Toxicity Monitoring

Discharge Serial Number: DSN 102-AT

Monitoring Locations: T – Acute toxicity effluent results and chemical analyses

Wastewater Description: Emergency discharge under flooding conditions, containing floodwater and the following sources of wastewater: service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Units 1 & 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Units 1 & 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater

Monitoring Location Description: Outlet from roof drain line

Discharge is to: Housatonic River	**Zone of Influence:** NA	**Instream Waste Concentration:** 100%	**Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

PARAMETER	**NET DMR CODE**	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING**			**MINIMUM LEVEL[5]**
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit[1]	Sample/ Reporting Frequency [2, 3]	Sample Type or Measurement to be reported [4]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Total Suspended Solids	00530	mg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	
Zinc, Total	01092	µg/L	NA	NA	NR	Daily Composite	---	Monthly	Grab	5

TABLE E FOOTNOTES AND REMARKS

Footnotes:

[1] WET limits are expressed as a minimum daily limit, meaning the minimum allowable daily discharge over the course of the 24-hour sampling period. Chemical results analyzed in conjunction with WET tests shall be reported as the max value collected during the 24-hour sampling period.

[2] The first entry in this column is the "Sample Frequency". If a "Reporting Frequency" does not follow this entry and the "Sample Frequency" is more frequent than monthly, then the "Reporting Frequency" is monthly. If the "Sample Frequency" is specified as monthly, or less frequent, then the "Reporting Frequency" is monthly.

[3] If more than one toxicity sample is collected during a single month, report subsequent WET and chemistry results as an attachment to the DMR in accordance with Section 8.2 of this permit.

[4] Daily composite samples shall be collected for acute toxicity tests consistent with the methodology outlined in Section 7.1 of this permit.

[5] "Minimum Level" refers to Section 6.3 of this permit.

[6] Acute toxicity testing shall be conducted in accordance with Section 7.1 of this permit. The NOAEL results (in % Survival) for the acute toxicity testing shall be reported on the DMR. The Aquatic Toxicity Monitoring Report ("ATMR") shall be completed for each toxicity testing event and submitted in accordance with Section 8.2 of this permit.

[7] Chemical analyses shall be conducted on samples used in the acute toxicity tests. These analyses shall be conducted on all samples used in the acute toxicity test and reported under Monitoring Location T. Results shall also be included on the ATMR and submitted in accordance with Section 8.2 of this permit.

[8] The Permittee shall report the date of sample collection for the acute toxicity test and associated chemistry data in the format: year month day (YYYYMMDD).

Remarks:

1. Abbreviations used for units are as follows: kg/day means kilograms per day; lbs/day means pounds per day; mg/L means milligrams per liter; mgd means millions of gallons per day; SU means Standard Units; mg/L means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5.4 of this permit); RDS means Range During Sampling; RDM means Range During Month.
2. If "---" is noted in the limits column in the table, this means that a limit is not specified but a value must be reported on the DMR.
3. Analyses that indicate that a parameter was not detected or that was detected less than the noted ML shall be reported in accordance with Section 6.5.

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

6.1 All samples shall be collected, handled, and analyzed in accordance with the methods approved under 40 CFR 136, unless another method is required under 40 CFR subchapter N or unless an alternative method has been approved in writing pursuant to 40 CFR 136.5. To determine compliance with limits and conditions established in this permit, monitoring must be performed using sufficiently-sensitive methods approved pursuant to 40 CFR 136 for the analysis of pollutants having approved methods under that part, unless a method is required under 40 CFR subchapter N or unless an alternative method has been approved in writing pursuant to 40 CFR 136.5.

6.2 All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136, unless otherwise specified.

6.3 The term Minimum Level ("ML") refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit ("MDL"). MLs may be obtained in several ways: They may be published in a method; they may be sample concentrations equivalent to the lowest acceptable calibration point used by the laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor of 3. The MLs specified in Section 5 Tables A - E represent the minimum concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Section 5 Tables A – E. Analyses for these parameters must include check standards within ten percent of the specified ML or calibration points equal to or less than the specified ML.

6.4 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.

6.5 Analyses for which quantification was verified to be below a ML, including non-detect, shall be reported as zero on the DMR for purposes of determining compliance with effluent limitations or conditions specified in this permit. The Permittee shall attach documentation demonstrating the ML of the analysis as an attachment to the DMR and identify the ML as a comment on the DMR.

6.6 It is a violation of this permit for a Permittee or his/her designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed.

6.7 Analyses required under this permit shall be performed in accordance with CGS Section 19a-29a. An "environmental laboratory", as that term is defined in the referenced section, that is performing analyses required by this permit, shall be registered and have certification acceptable to the Commissioner, as such registration and certification is necessary.

SECTION 7: AQUATIC TOXICITY TESTING

7.1 **ACUTE TESTING REQUIREMENTS.** The Permittee shall conduct acute aquatic toxicity testing for DSN 101-AT and 102-AT as follows:

7.1.1 **TEST METHOD**: Acute aquatic toxicity shall be performed as prescribed in the reference document *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA-821-R-02-012), or the most current version, with any exceptions or clarifications noted below.

7.1.2 **SAMPLE COLLECTION AND HANDLING:**

7.1.2.1 Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 0-6 °C until aquatic toxicity testing is initiated.

7.1.2.2 Effluent samples shall not be dechlorinated, filtered, or modified in any way prior to testing for acute aquatic toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.

7.1.2.3 Tests for acute aquatic toxicity shall be initiated within 36 hours of sample collection.

7.1.3 **TEST SPECIES AND TEST DURATION:** Monitoring for aquatic toxicity to determine compliance with the acute toxicity limits in this permit shall be conducted as follows:

7.1.3.1 For 48-hours utilizing neonatal *Daphnia pulex* (less than 24-hours old).

7.1.3.2 For 48-hours utilizing larval *Pimephales promelas* (1-14 days old with no more than 24-hours range in age).

7.1.4 **ACUTE ENDPOINT:** Survival at 48-hours measured by NOAEL.

7.1.5 **TEST CONDITIONS:**

7.1.5.1 Tests for acute aquatic toxicity shall be conducted as prescribed for static non-renewal tests.

7.1.52 Pass/fail and single concentration tests shall be conducted at a specified Critical Test Concentration ("CTC") equal to the acute toxicity effluent limit, or 100% in the case of monitoring only conditions, as prescribed in Section 22a-430-3(j)(7)(A)(i) of the RSCA. Five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be employed in the test. Three replicate control test chambers containing dilution water only shall also be employed in the test.

7.1.5.3 Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (±5 mg/L) as $CaCO_3$ shall be used as dilution water.

7.1.5.4 Copper nitrate shall be used as the reference toxicant.

7.1.5.5 Dissolved oxygen, pH, and temperature shall be measured in the control and in all test concentrations at the beginning of the test, daily thereafter, and at test termination.

7.1.5.6 Specific conductance, pH, alkalinity, hardness, and total residual chlorine shall be measured in the undiluted effluent sample and in the dilution (control) water at the beginning of the test and at test termination. If total residual chlorine is not detected at test initiation, it does not need to be measured at test termination.

7.1.6 **CHEMICAL ANALYSIS:** All effluent samples used in the acute toxicity test shall at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 5 Table B and E, and Section 6.1 for the parameters identified on Section 5 Table B and E of the permit.

7.1.7 **TEST ACCEPTABILITY CRITERIA:** For the test results to be acceptable, control survival must equal or exceed 90%. If the laboratory control fails to meet test acceptability criteria for either of the test organisms at the end of the respective test period, then the test is considered invalid and the test must be repeated with a newly collected sample in accordance with Section 9.4.

7.1.8 **TEST COMPLIANCE:** Compliance with limits on Acute Toxicity shall be determined as follows:

7.1.8.1 For limits expressed as a NOAEL value, compliance shall be demonstrated when the results of a valid single concentration or pass/fail acute aquatic toxicity test indicates there is greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at the specified CTC.

7.1.9 **REPORTING:** Results of acute toxicity monitoring shall be documented on an ATMR and reported to the Commissioner by the last day of the month following the month in which samples are collected in accordance with Section 8.2 of this permit. The report shall include the items identified in Section 8.2 of this permit. Endpoints to be reported are: 48-hour LC50 and NOAEL.

7.2 **CHRONIC TESTING REQUIREMENTS**. The Permittee shall conduct chronic toxicity testing for DSN 001-1 as follows:

7.2.1 **TEST METHOD**: Chronic aquatic toxicity testing shall be performed as prescribed in the reference document *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, EPA-821-R-02-013, or the most current version, with the following exceptions or clarifications noted below.

7.2.2 **SAMPLE COLLECTION AND HANDLING:**

7.2.2.1 Composite samples shall be chilled as they are being collected. Samples shall be held at 0-6 °C until chronic aquatic toxicity testing is initiated.

7.2.2.2 Effluent samples shall not be dechlorinated, filtered, or modified in any way prior to testing for chronic aquatic toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.

7.2.2.3 Tests for chronic aquatic toxicity shall be initiated within 36 hours of sample collection.

7.2.3 **TEST SPECIES AND TEST DURATION:** Monitoring for chronic aquatic toxicity to determine compliance with the chronic toxicity limits/conditions in the permit shall be conducted as follows:

7.2.3.1 For seven days utilizing neonatal *Ceriodaphnia dubia* (less 24-hours old)

7.2.3.2 For seven days utilizing newly-hatched *Pimephales promelas* (less 24-hours old).

7.2.4 **CHRONIC ENDPOINTS:**

7.2.4.1 *Ceriodaphnia dubia:* Survival and Reproduction

7.2.4.2 *Pimephales promelas:* Survival and Growth

7.2.5 **DILUTION WATER:** Housatonic River water shall be collected upstream of the area influenced by the discharge and shall be used as site control water (0% effluent) and dilution water in the toxicity tests. The Permittee shall document the dilution water sampling location by providing coordinates and/or a map of the location.

7.2.6 **TEST CONDITIONS:**

7.2.6.1 Testing for chronic aquatic toxicity shall be conducted as prescribed in the reference document for static daily renewal tests.

7.2.6.2 Grab samples of the discharge and grab samples of the Housatonic River for use as site

water and dilution water shall be collected on: Day 1 of the test (for test initiation and renewal on Day 2 of the test); Day 3 of the test (for test solution renewal on Day 3 and Day 4 of the test); and on Day 5 of the test, (for test solution renewal on Day 5, Day 6, and Day 7 of the test). Samples shall not be dechlorinated, pH or hardness adjusted, or chemically altered in any way.

7.2.6.3 Test concentrations shall be comprised of a minimum of five dilutions (100%, 75%, 50%, 25%, 12.5%, and 6.25% effluent), laboratory control water, and site dilution water.

7.2.6.4 Dissolved oxygen, pH, and temperature shall be measured in each sample of effluent and the Housatonic River water sample prior to and immediately following renewal of the test solutions.

7.2.6.5 Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/l (±5 mg/l) as $CaCO_3$ prepared as described in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013) shall be used as laboratory control water.

7.2.7 **CHEMICAL ANALYSIS:** Chemical analysis for the parameters identified in Section 5 Table C of the permit shall be conducted on an undiluted aliquot of each effluent sample and each sample of upstream Housatonic River used in the test. The chemical analysis shall be analyzed, and results reported in accordance with the provisions listed in Section 5 Table C and Section 6.1 of the permit.

7.2.8 **TEST ACCEPTABILITY CRITERIA:** If the laboratory control fails to meet test acceptability criteria specified in the reference document for either of the test organisms at the end of the respective test period, then the test is considered invalid and the test must be repeated.

7.2.9 **REPORTING:** A report detailing the results of the chronic toxicity monitoring shall be documented on an ATMR and submitted to the Commissioner by the last day of the month following the month in which samples are collected in accordance with Section 8.2 of this permit. The report shall include the items identified in Section 8.2 of this permit. Endpoints to be reported are: 48-hour LC50 (survival), 7-day LC50 (survival), 7-day C-NOEC (survival), 7-day C-LOEC (survival), 7-day C-NOEC (growth), 7-day C-LOEC (growth), 7-day C-NOEC (reproduction), 7-day C-LOEC (reproduction), 7-day IC25 (growth and reproduction).

SECTION 8: REPORTING REQUIREMENTS

8.1 The results of chemical analyses and any aquatic toxicity test required by this permit shall be submitted electronically using NetDMR. Monitoring results shall be reported at the monitoring frequency specified in this permit. 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 another method required for an industry-specific waste stream under 40 CFR subchapter N, or other methods approved by the Commissioner, shall also be included on the DMR, or as an attachment, if necessary, and the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Commissioner in the permit. All aquatic toxicity reports shall also be included as an attachment to the DMR. A report shall also be included with the DMR which includes a detailed explanation of any violations of the limitations specified. DMRs, attachments, and reports, shall continue to be submitted electronically in accordance with Section 8.4 below. However, if the DMRs, attachments, and reports are required to be submitted in hard copy form, they shall be received at this address by the last day of the month following the month in which samples are collected:

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division (Attn: DMR Processing)
Connecticut Department of Energy and Environmental Protection

8.2 The ATMR associated with aquatic toxicity monitoring shall include all applicable items identified in Section 12 of EPA-821-R-02-012 and in Section 10 of EPA-821-R-02-013 (Freshwater), including complete and accurate aquatic toxicity 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, including measured daily flow and hours of operation for the 30 consecutive operating days prior to sample collection. The ATMR shall be submitted electronically as an attachment to the DMR and via email to: DEEP.IndustrialWETReports@ct.gov. The ATMR required by Sections 5 and 7 shall be received at this address by the last day of the month following the month in which the samples are collected

8.3 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 and ATMR, as scheduled, indicating no discharge has occurred using NODI code "C", 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.

8.4 NetDMR Reporting Requirements:

The Permittee shall report electronically using NetDMR, a web-based tool that allows permittees to electronically submit DMRs and other required reports through a secure internet connection. The Permittee and/or the signatory authority shall electronically submit DMRs required under this permit to the Commissioner using NetDMR in satisfaction of the DMR submission requirements of Sections 5, 6, and 9 of this permit. All sampling and monitoring records 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 Commissioner as an electronic attachment to the DMR in NetDMR. The Permittee shall also electronically file any written report of noncompliance described in Section 9 of this permit as an attachment in NetDMR. DMRs shall be submitted electronically to the Commissioner no later than the last day of the month following the completed reporting period. NetDMR is accessed from: http://www.epa.gov/netdmr.

SECTION 9: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

9.1 *Noncompliance Notifications:*

9.1.1 In accordance with Section 22a-430-3(j)(8), 22a-430-3(j)(11)(D), 22a-430-3(k)(4), and 22a-430-3(i)(3) of the RSCA, the Permittee shall notify the Commissioner of the following actual or anticipated noncompliance with the terms or conditions of this permit within two hours of becoming aware of the circumstances. All other actual or anticipated violations of the permit shall be reported to the Commissioner within 24 hours of becoming aware of the circumstances:

9.1.1.1 A noncompliance that is greater than two times an effluent limitation;

9.1.1.2 A noncompliance of any minimum or maximum daily limitation or excursion beyond a minimum or maximum daily range;

9.1.1.3 Any condition that may endanger human health or the environment, including but not

limited to noncompliance with whole effluent toxicity WET limitations;

9.1.1.4 Any condition that may endanger the operation of a POTW, including sludge handling and disposal;

9.1.1.5 A failure or malfunction of monitoring equipment used to comply with the monitoring requirements of this permit;

9.1.1.6 Any actual or potential bypass of the Permittee's collection system or treatment facilities; or

9.1.1.7 Expansions or significant alterations of any wastewater collection, treatment facility, or its method of operation for the purpose of correcting or avoiding a permit violation.

9.1.2 Notifications shall be submitted via the Commissioner's online Noncompliance Notification Form: https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements.

9.1.3 Within five days of any notification of noncompliance in accordance with Sections 9.1.1.1 through 9.1.1.6 of this permit, the Permittee shall submit a follow-up report using the Commissioner's online Noncompliance Follow-up Report Form: https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements.

The follow-up report shall contain, at a minimum, the following information: (i) A description of the noncompliance and its cause; (ii) the period of noncompliance, including exact dates and times; (iii) if the noncompliance has not been corrected, the anticipated time it is expected to continue; and (iv) steps taken or planned to correct the noncompliance and reduce, eliminate and prevent recurrence of the noncompliance.

9.1.4 Within 30 days of any notification of facility modifications reported in accordance with Section 9.1.1.7 of this permit, the Permittee shall submit a written follow-up report by submitting a "Facility and Wastewater Treatment System Modification Request for Determination" for the review and approval of the Commissioner. The report shall fully describe the changes made to the facility and reasons therefor.

9.1.5 Notification of an actual or anticipated noncompliance or facility modification does not stay any term or condition of this permit.

9.2 In accordance with Section 22a-430-3(j)(11)(E) of the RSCA, the Permittee shall notify the Commissioner within 72 hours and in writing within 30 days when he or she knows or has reason to believe that the concentration in the discharge of any substance listed in the application, or any toxic substance as listed in Appendix B or D of RSCA Section 22a-430-4, has exceeded or will exceed the highest of the following levels: (1) One hundred micrograms per liter; (2) Two hundred micrograms per liter for acrolein and acrylonitrile, five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter for antimony; (3) An alternative level specified by the Commissioner, provided such level shall not exceed the level which can be achieved by the Permittee's treatment system; or (4) A level two times the level specified in the Permittee's application.

72-hour initial notifications shall be submitted via the Commissioner's online Noncompliance Notification Form. 30-day follow-up reports shall be submitted via the Commissioner's online Noncompliance Follow-up Report Form. The Forms are available at the Commissioner's website, here: https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements.

9.3 In addition to any other written reporting requirements, the Permittee shall report any instances of

noncompliance with this permit with its DMR. Such reporting shall be due no later than the last day of the month following the reporting period in which the noncompliant event occurred. The information provided in the DMR shall include, at a minimum: the type of violation, the duration of the violation, the cause of the violation, and any corrective action(s) or preventative measure(s) taken to address the violation.

9.4 If any sample analysis indicates that an aquatic toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for aquatic toxicity and associated chemical parameters, as described above in Sections 5 and 7. The exceedance or invalid test shall be reported to Commissioner in accordance with Section 9.1. The results shall be submitted to the Commissioner within 30 days of the exceedance or invalid test. The results and the associated ATMR shall be reported in accordance with Sections 5 and 8.2 of the permit. Results of all tests, whether valid or invalid, shall be reported. If more than one toxicity sample is collected during a single month, report subsequent WET and chemistry results with the following month's DMR.

9.5 If any two consecutive test results or any three test results in a twelve-month period indicate that an aquatic toxicity limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall also submit a report, for the review and written approval of the Commissioner, which describes in detail the steps taken or that shall be taken to eliminate the toxic impacts of the discharge on the receiving water and it shall also include a proposed schedule for implementation. Such report shall be submitted in accordance with the timeframe set forth in Section 22a-430-3(j)(10)(C) of the RCSA. The Permittee shall implement all actions in accordance with the approved report and schedule.

SECTION 10: SPECIAL CONDITIONS

10.1 The Permittee shall take all reasonable steps to prevent a discharge from occurring from DSN 102. In the event that there is a discharge from DSN 102 that occurs due to emergency conditions, the Permittee shall comply with the following conditions:

10.1.1 Take all reasonable steps to minimize the discharge;

10.1.2 Comply with the Best Management Practice ("BMP') found as Attachment 1 of this permit entitled "BMP for Pumping of the 54" valve Pit at Rocky River" or the most up-to-date revision;

10.1.3 Electronically notify the Department within 24 hours of cessation of the emergency discharge at deep.industrialnpdescompliance@ct.gov and provide: the cause of the emergency condition, the amount of gallons discharged during the emergency event, and information concerning any problems/issues encountered during the discharge period; and

10.1.4 Within sixty days following cessation of the emergency discharge, the Permittee shall provide certified, written documentation to the Department at deep.industrialnpdescompliance@ct.gov which shall include: the duration of the event; the total flow discharged; the reason(s) for the event; a summary of the steps that the Permittee took to properly manage the discharge; a description of any deviations from the referenced BMP; any and all operating/activity records summarizing/detailing the event; any and all laboratory results of the discharge.

This permit is hereby issued on

_____

JENNIFER PERRY, P.E.
Bureau Chief

JP/ PB

Connecticut
Department of Energy &
Environmental Protection

National Pollutant Discharge Elimination System Permit Factsheet

NPDES Permit Summary	
Applicant	FirstLight CT Housatonic LLC
Permit No.	CT0030287
Application No.	201502735
Date Application Received	April 16, 2015
Location Address	200 Kent Road, New Milford, CT 06776
Facility Contact	Kevin Gerardi, Sr. HSE Specialist Office Phone: 203-470-8366 Email: kevin.gerardi@firstlight.energy
Mailing Address	143 West Street Suite E, New Milford, CT 06776
DMR Contact	Kevin Gerardi, Sr. HSE Specialist Office Phone: 203-470-8366 Email: kevin.gerardi@firstlight.energy
Secretary of State Business ID	0607778
Permit Term	5 Years
Permit Category	Minor
SIC & NAICS Code(s)	4911
Applicable Effluent Guidelines	NA
Permit Type	Reissuance
Ownership	Private
Receiving Water	Housatonic River
Waterbody Segment Id's	DSN 101 and 102 CT6000-00_03
Waterbody Classification	B
Discharge Locations	DSN 101 and 102 Latitude 41.58283 Longitude -73.43482
Compliance Schedule	NA
Staff Engineer	Patrick Bieger, Environmental Engineer Phone: 860-424-3805 E-Mail: Patrick.bieger@ct.gov

Table of Contents

Section 1.0 Facility Summary

1.1 Permit Fees

***Application Fee**:*

Filing Fee	Invoice No.: DEP246234	Amount: $1,300	Date Paid: 4/17/2015
Processing Fee	Invoice No.: NA	Amount: NA	Date Paid: NA

Annual Fee:

Wastewater Category (per Regs. Conn. State Agencies Sec. 22a-430-7)	**Flow Category (gallons per day)**	**DSN**	**Annual Fee (per Regs. Conn. State Agencies sec. 22a-430-7 and Conn. Gen. Stat. Sec. 22a-6f)**
Non-contact cooling water	0-100,000	101 102	$660.00
Building floor drain wastewaters	-----	101 102	0
TOTAL			**$660.00**

1.2 Application Submittal Information

On April 16, 2015, the Department of Energy and Environmental Protection ("DEEP") received an application (application no. 201502735) from FirstLight CT Housatonic LLC ("the Permittee", "the Applicant", "the facility") in New Milford for the renewal of its NPDES permit, permit no. CT0030287 expiring on October 25, 2015 ("the previous permit").

Consistent with the requirements of Section 22a-6g of the Connecticut General Statutes ("Conn. Gen. Stat."), the Permittee published a Notice of Permit Application in the Danbury News Times on April 3-5, 2015. On June 22, 2015, the application was determined to be timely and administratively sufficient.

The Permittee seeks authorization for the following in Application 201502735:

DSN	PROPOSED AVERAGE DAILY FLOW (gpd)	PROPOSED MAXIMUM DAILY FLOW (gpd)	PROPOSED WASTESTREAMS	TREATMENT TYPE	DISCHARGE TO
101	NA	1,440,000	Service water strainer equalizing water; Units 1 & 2 stuffing box wastewater; Unit 1& 2 headcover siphon wastewater; Unit 3 headcover leakage wastewater; Draft tube drain valve operating wastewater; House pump priming line leakage wastewater; Unit 1 & 2 cooling water; Unit 3 cooling water; Air compressor blowdown; Penstock drain valve wastewater; Draft tube wastewater; Groundwater.	Oil/water separator and oil skimming	Housatonic River
102	NA	1,656,000	Emergency flood water discharge from the station powerhouse, including residual wastewater described in DSN 101.	Surface oil removal	Housatonic River
104	Combined into DSN 101. See Section 1.5 Facility Description				

1.3 Other Permits

The Permittee has no other permit coverage for wastewater discharges.

1.4 Description of Industrial Process

FirstLight CT Housatonic LLC is a business that performs hydroelectric generation at a peaking hydroelectric plant in New Milford, CT. The facility can generate energy using the flow from the Housatonic River or by releasing water from Candlewood Lake through the facility's turbines. Wastewater sources include leakage from the turbines, water from turbine draining, groundwater, and emergency discharges due to flood conditions. Water is discharged to the Housatonic River by way of DSN 101 and 102 under this draft permit.

1.5 Facility Description

Rocky River Station is a pumped storage facility or peaking plant, with one main powerhouse and a penstock between Candlewood Lake and the Housatonic River. The station also includes two reversible pumps (Unit 1 and Unit 2) and one 24-megawatt powered generator (Unit 3). The pumps transfer water from the Housatonic River for storage in Candlewood Lake. When conditions allow, this process is reversed to generate electricity. The facility is licensed by the Federal Energy Regulatory Commission ("FERC"). The FERC license dictates when the facility uses Candlewood Lake and Housatonic River for power generation. Hydroelectric operations have occurred at the site since 1928. This station is staffed 24 hours/day.

The facility has a 54" valve pit that collects all wastewaters covered under this permit. This pit collects miscellaneous wastewaters from various sumps and drains throughout the facility. The miscellaneous wastewaters include groundwater, floor gutter drain waters, station receiver condensation, service water strainer equalizing line draining wastewater, and Unit 1 and 2 stuffing box drain event wastewaters. The valve pit also receives flows from Unit 1's circular trench, Unit 2's circular trench, Unit 3's cooling water, and Unit 3's penstock drain valve leakage. Each circular trench collects the following wastewater: headcover siphon leakage, cooling water, draft tube drain valve operating water, and house pump priming line leakage. Unit 3's cooling water goes through an oil water separator before being pumped into the valve pit.

The valve pit has to two outlets. One outlet is the emergency discharge DSN 102. This discharge location is only used in the event the station floods from a rise in river waters. DSN 102 has a dedicated pump in the facility's 54" valve pit. This pump discharges through the building's roof drain line to the Housatonic River. This discharge can contain all wastewaters captured in the valve pit from normal facility operations and any flood water captured within the facility. The Permit contains a Best Management Practices ("BMP") for operating the valve pit. The BMP focus on reducing the amount of oil and grease contained within the valve pit and includes physical removal of surface oil when necessary.

The second outlet from the valve pit flows to the station sump. This outlet is gravity fed. The station sump also receives draft tube drain water. This water consists of river water remaining in the Units' draft tubes when they are shut down for maintenance.

Wastewater in the sump is treated using an oil-skimming belt that collects oil into a 55-gallon drum for disposal. This sump also contains two pumps (500 gpm max) that are used to discharge wastewater from the sump to the receiving water. These pumps were previously designated DSN 101 and 104 because they have independent piping. However, the pumps do not operate at the same time during normal operations and they discharge to the same location in the Housatonic River, therefore the discharge has been consolidated to DSN 101. DSN 104 will no longer be listed in the permit.

DSN 101 is a non-continuous discharge that occurs only during facility operations. The average discharge duration from May 2024 to May 2025 was 2.1 hours per day. The batch discharge occurs daily.

1.6 Facility Changes

The Regulations of the Connecticut State Agencies ("Regs. Conn. State Agencies") require that permittees notify DEEP and obtain written approval of any facility expansion or process change that may result in an increased or new discharge or constitute a new source, and of any expansion or significant changes made to a wastewater collection system, treatment system, or its method of operation in accordance with Regs. Conn. State Agencies Section 22a-430-3(i). These regulatory provisions are commonly referred to as "3(i) determinations". DEEP will review the notification and determine if the change can be implemented under the previous permit or if the requested change requires a permit modification to protect waters of the State in accordance with Regs. Conn. State Agencies Section 22a-430-4(p).

There were no changes to the facility since the previous permit was issued.

1.7 Treatment System Description

The facility contains an oil/water separator that treats the leakage collected from Unit 3 and an oil skimmer in the station sump that treats the combined facility discharge through DSN 101. A copy of the facility's process flow diagram is included as **Attachment A.**

1.8 Compliance History

A review of the Permittee's monitoring data from January 1, 2020 to January 1, 2025 was completed. The table below contains a summary of permit limit violations found during the review.

Permit Limit Violations					
Date	**Parameter**	**DSN**	**Permit Limit**	**Reported Value**	**Units**
06/30/2020	Oil & Grease	101	10	13.68	mg/L
10/31/2020	pH (Minimum)	101	6	1.4	S.U.
01/31/2022	pH (Minimum)	101	6	5.41	S.U.
01/31/2022	pH (Minimum)	104	6	5.41	S.U.

Is the Permittee subject to an ongoing enforcement action? ☒ Yes ☐ No

Consent Order Number WC5435 ("the order"), issued November 9, 2006, required the Permittee to investigate all discharges from hydroelectric facilities, including Rocky River Station, and submit discharge permit applications for all facilities with unpermitted wastewater discharges. DEEP received the report "Investigation and Remediation of Discharges at Ten Hydroelectric Stations" on June 6, 2008, an addendum "Investigation and Remediation of Discharges at Ten Hydroelectric Stations Addendum" required by Paragraph B.2.d of the order on November 2, 2009, and a subsequent report with an updated monitoring plan on March 29, 2024. DEEP issued an approval on May 2, 2024, indicating that the Permittee was in compliance with Paragraph B.2.d. of the order. The reports identified the discharges of turbine, non-contact cooling water, and building leakage from this facility.

Did the previous permit have a compliance schedule? ☐ Yes ☒ No

1.9 General Issues Related To The Application

1.9.1 Federally Recognized Indian Land
As provided in the permit application, the site is not located on federally-recognized Indian land.

1.9.2 Coastal Area/Coastal Boundary
The activity is not located within a coastal boundary as defined in Conn. Gen. Stat. 22a-94(b).

1.9.3 Endangered Species
As provided in the permit application, the site is not located within an area identified as a habitat for endangered, threatened or special concern species according to the 2015 *State and Federal Listed Species and Natural Communities Map*.

1.9.4 Aquifer Protection Areas
As provided in the permit application, the site is not located within a protected area identified on a Level A or B map.

1.9.5 Conservation Or Preservation Restriction
As provided in the permit application, the property is not subject to a conservation or preservation restriction.

1.9.6 Public Water Supply Watershed
As provided in the permit application, the site is not located within a public water supply watershed.

Section 2 Receiving Water Body Information

The water classification of section CT6000-00_03 of the Housatonic River is B. Class B waters are designated for habitat for fish and other aquatic life and wildlife; recreation; navigation; and industrial and agricultural water supply. This segment of the Housatonic River is not listed on the State's 305(b) list. However, both the segment below and above the receiving water segment are impaired for recreation due to *E. coli*. This segment was assessed as part of the 2022 305(b) assessment for aquatic life and recreation and the results are found in the figure below (2022 Integrated Water Quality Report, CT DEEP).

Figure 2.1. 2022 Assessment for Aquatic Life and Recreation

Waterbody Segment ID	Waterbody Name	Location	Miles	Aquatic Life	Recreation
CT6000-00_02	Housatonic River (Shelton/Derby)-02	Confluence with Naugatuck River, US to Lake Housatonic outlet dam (Derby Dam), Shelton/Derby town border (Between segment 02 and 03, are Lake Housatonic, Lake Zoar, and Lake Lillinonah, all independent waterbodies).	1.5	Not Assessed	Not Supporting
CT6000-00_03	Housatonic River (New Milford/Bridgewater)-03	Inlet Lake Lillinonah (Northwestern most portion, DS Lovers Leap Road crossing), confluence Town Farm Brook, New Milford/Bridgewater town border, US to Boardman Road crossing (between Route 7 and RailRoad tracks), New Milford.	5.09	Insufficient Information	Fully Supporting
CT6000-00_04	Housatonic River-04	From Boardman Road crossing (between Route 7 and RailRoad tracks), New Milford, US to Bull Bridge outlet dam (US of Bulls Bridge Road crossing, west side of Route 7), Kent.	8.05	Fully Supporting	Not Supporting

There is a statewide Total maximum Daily Load ("TMDL") for total dissolved oxygen: "A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound", December 2000 (Total Maximum Daily Load for Long Island Sound (ct.gov)). The Permittee's discharge has not been assigned a waste load allocation ("WLA") for total nitrogen as part of this TMDL.

Figure 2.2. Image of discharge location.

Section 3 Permit Conditions And Effluent Limitations

3.1 Effluent Guidelines

No categories found under the federal Effluent Limit Guidelines and Standards of Title 40 Code of Federal Regulations ("CFR") Chapter 1 Subchapter N match the description of wastewaters discharged by DSNs 101 and 102. The Steam Electric Power Generating Point Source Category under 40 CFR Part 423 was reviewed for applicability as the facility is a hydroelectric power plant. Under the applicability in 40 CFR Part 423.10, it was determined that this category applies to electricity resulting primarily from fossil-type fuels or nuclear fuel. The Applicant uses water turbines to generate electricity; therefore, this activity would not fall under 40 CFR Part 423. There is no applicable federal effluent limit guideline for the proposed discharges.

3.2 Pollutants Of Concern

The following pollutants are included as monitoring pollutants in the permit for the reasons noted below:

Pollutant	Reason For Inclusion			
	Pollutant With an Applicable Technology-Based Limit	Pollutant With a WLA From a TMDL	Pollutant Identified as Present in the Effluent Through Sampling	Pollutant Otherwise Expected to be Present in the Effluent
Oil and grease			X	
pH			X	
Copper			X	
Lead			X	
Zinc			X	
Tetrachloroethylene[1]				X
Temperature				X
Acute Toxicity			X	

[1]Tetrachloroethylene has been found in the groundwater around the site of the facility and is likely due to historic industrial activity done on the site.

3.3 Basis For Limits

Technology and water-quality based requirements are considered when developing permit limits. Technology-based effluent limits ("TBELs") represent the minimum level of control imposed under the Clean Water Act ("CWA"). Industry-specific technology-based limits are set forth in 40 CFR Sections 405 – 471 (EPA's Effluent Limitation Guidelines) and in Regs. Conn. State Agencies Section 22a-430-4(s)(2). Water quality-based limits are designed to protect water quality and are determined using the procedures set forth in EPA's *Technical Support Document for Water Quality-Based Toxics Control*, 1991 ("TSD"). When both technology and water quality-based limits apply to a particular pollutant, the more stringent limit would apply. In addition, water quality-based limits are required when any pollutant or pollutant parameter (conventional, non-conventional, toxic, and whole effluent toxicity) is or may be discharged at a level that causes, has reasonable potential to cause, or contributes to an excursion above any water quality criteria. Numeric water quality criteria are found in Regs. Conn. State Agencies Section 22a-429-9 of the *Connecticut Water Quality Standards* ("WQS").

3.4 Waterbody Ambient Conditions

Parameter	Value
7Q10	158 cubic feet per second

3.5 Zone Of Influence

There is no zone of influence allocated to this facility.

3.6 Reasonable Potential Analysis

Pursuant to CWA Section 301(b)(1)(C) and 40 CFR Section 122.44(d)(1), NPDES permits must contain any requirements in addition to TBELs that are necessary to achieve water quality standards established under Section 303 of the CWA. See also 33 United States Code (USC) Section 1311(b)(1)(C). In addition, 40 CFR Section 122.44(d)(1)(i) requires that limitations "must control any pollutant or pollutant parameter (conventional, non-conventional, or toxic) which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard, including State narrative criteria for water quality.".

To determine if the discharge causes, or has the reasonable potential to cause, or contribute to an excursion above any WQS, EPA considers: 1) existing controls on point and non-point sources of pollution; 2) the variability of the pollutant or pollutant parameter in the effluent; 3) the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity); and 4) where appropriate, the dilution of the effluent by the receiving water. See 40 CFR Section 122.44(d)(1)(ii).

If the permitting authority determines that the discharge of a pollutant will cause, has the reasonable potential to cause, or contribute to an excursion above WQSs, the permit must contain Water Quality Based Effluent Limits ("WQBELs") or require additional monitoring if there is insufficient data to develop a WQBEL, for that pollutant. See 40 CFR Section 122.44(d)(1)(i).

A reasonable potential analysis was completed for copper, zinc, and tetrachloroethylene for DSN 101. The analysis was completed using effluent data from the previous permit's DSN 101 and 104, from January 1, 2020 through January 1, 2025, as these outfalls are comprised of the same wastewater. It was determined that copper has a reasonable potential to exceed the water quality criteria, based on 20 samples of data, and the permit will include copper limits to protect the instream standards. Zinc and tetrachloroethylene did not have a reasonable potential to exceed the WQS but are still expected to be present at the site and in the discharge. Therefore, monitoring for zinc and tetrachloroethylene will be maintained in the permit. The reasonable potential analysis is presented in Section 3.6.1, below.

There is insufficient data to perform a reasonable potential analysis for DSN 102 because it has not discharged in the last ten (10) years and no monitoring data has been collected or provided. The monitoring requirements for this DSN will carry forward and if this location discharges, and sufficient data is collected, DEEP will perform a reasonable potential for the next iteration of the permit renewal.

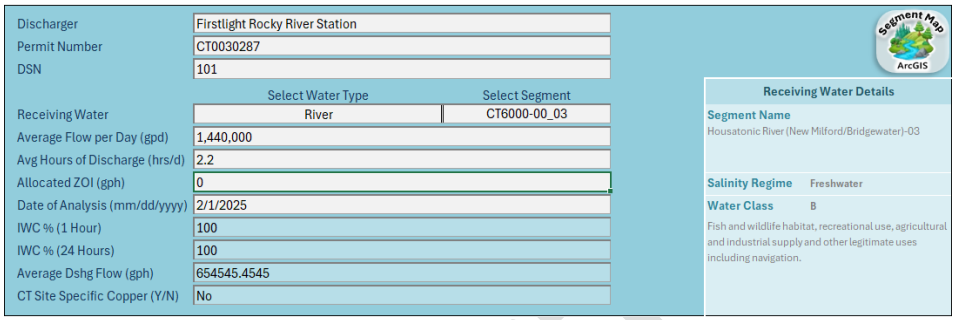
Temperature: Based on monthly effluent monitoring data from January 1 2020 through January 1, 2025 the reported maximum temperature of the discharge is 77 degrees Fahrenheit This maximum observed temperature does not exceed the WQS of 85 degrees. Therefore, a reasonable potential analysis was not completed for temperature.

Temperature is associated with non-contact cooling water, which makes up a fraction of the Permittee's discharge. The non-contact cooling water mixes with other wastewater sources in a sump allowing for temperature dissipation before discharging via DSN 101. The permit will maintain the monthly temperature monitoring requirement.

Lead: There is insufficient data to perform a reasonable potential analysis for lead. From January 2020 to January 2025 there have been only two detections of lead at the facility which were taken from grab samples used for toxicity. Due to the low sample size and low frequency of detections, there is not enough data to evaluate the reasonable potential of lead. The monitoring frequency for lead has been increased to monthly for this permit term. This will allow DEEP to acquire enough data to perform a reasonable potential analysis next permit issuance.

3.6.1 Reasonable Potential Calculation Summary

Figure 3.6.1 DSN 101 Discharge and Receiving Water Flows



Discharger	Firstlight Rocky River Station	
Permit Number	CT0030287	
DSN	101	
	Select Water Type	Select Segment
Receiving Water	River	CT6000-00_03
Average Flow per Day (gpd)	1,440,000	
Avg Hours of Discharge (hrs/d)	2.2	
Allocated ZOI (gph)	0	
Date of Analysis (mm/dd/yyyy)	2/1/2025	
IWC % (1 Hour)	100	
IWC % (24 Hours)	100	
Average Dshg Flow (gph)	654545.4545	
CT Site Specific Copper (Y/N)	No	

Segment Map ArcGIS

Receiving Water Details

Segment Name
Housatonic River (New Milford/Bridgewater)-03

Salinity Regime Freshwater

Water Class B

Fish and wildlife habitat, recreational use, agricultural and industrial supply and other legitimate uses including navigation.

Monitoring data was reviewed from January 1, 2020 through January 1, 2025. The average concentration, maximum concentration, the standard deviation of the data, the coefficient of variation ("CV"), the number of data points, and a statistical multiplier was found for each parameter analyzed.

The equation to calculate the CV is: $$CV = \frac{Standard\ Deviation}{Average}$$

A statistical multiplier is found for each parameter using a lookup table found in the TSD. The lookup table calculates a statistical multiplier using the number of samples and the CV.

Reported Monitoring Data From January 1, 2020 to January 1 2025								
Copper			Zinc			Tetrachloroethylene*		
Date	Value	Unit	Date	Value	Unit	Date	Value	Unit
1/31/20	4	µg/L	1/31/20	11	µg/L	1/31/20	0.5	µg/L
4/30/20	6	µg/L	4/30/20	14	µg/L	7/31/20	0.5	µg/L
7/31/20	23	µg/L	7/31/20	25	µg/L	1/31/21	0.5	µg/L
10/31/20	7	µg/L	10/31/20	28	µg/L	7/31/21	0.5	µg/L
1/31/21	6	µg/L	1/31/21	18	µg/L	1/31/22	0.5	µg/L
4/30/21	3	µg/L	4/30/21	02	µg/L	7/31/22	0.5	µg/L
7/31/21	16	µg/L	7/31/21	27	µg/L	1/31/23	0.5	µg/L
10/31/21	11	µg/L	10/31/21	150	µg/L	7/31/23	0.5	µg/L
1/31/22	4	µg/L	1/31/22	2	µg/L	1/31/24	0.5	µg/L
4/30/22	7	µg/L	4/30/22	18	µg/L	7/31/24	0.5	µg/L
7/31/22	27	µg/L	7/31/22	49	µg/L	*No data was above detection level for Tetrachloroethylene.		
10/31/22	33	µg/L	10/31/22	26	µg/L			
1/31/23	2	µg/L	1/31/23	21	µg/L			
4/30/23	8	µg/L	4/30/23	16	µg/L			
7/31/23	14	µg/L	7/31/23	08	µg/L			
10/31/23	42	µg/L	10/31/23	11	µg/L			
1/31/24	5	µg/L	1/31/24	18	µg/L			
4/30/24	25	µg/L	4/30/24	50	µg/L			
7/31/24	5	µg/L	7/31/24	16	µg/L			
10/31/24	9	µg/L	10/31/24	4	µg/L			

Summary of Monitoring Data						
Parameter	Average Concentration	Maximum Concentration	Standard Deviation	CV	Number of Samples	Statistical Multiplier
Copper	12.3 µg/l	42 µg/l	0.011	0.9	20	3.2
Zinc	27.5 µg/l	150 µg/l	0.030	1.1	20	3.8
Tetrachloro-ethylene	0.5 µg/l	0.5 µg/l	0	0.6*	10	1.7

*The coefficient of variation was outside of the acceptable range. 0.6 was used as the CV based on EPA guidance found in the TSD.

The estimated maximum concentration is compared to the lowest of its acute, chronic, and human health ("HH") WQC. If the estimated concentration is above the lowest WQC there is reasonable potential for that parameter to exceed the WQS.

$$Maximum\ Value * Statistical\ Multiplier = Estimated\ Maximum\ Concentration$$

Reasonable Potential Analysis Results			
Parameter	**Estimated Maximum Concentration**	**Lowest WQC**	**Reasonable Potential**
Copper	105.6 µg/l	4.8 µg/l	Yes
Zinc	57 µg/l	65 µg/l	No
Tetrachlorethylene	1.5 µg/l	6.6 µg/l	No

WQBEL calculations for parameters with reasonable potential are presented in Section 3.8 of this fact sheet.

3.7 Whole Effluent Toxicity

The Permittee shall comply with effluent standards or prohibitions established by CWA Section 307(a) and Regs. Conn. State Agencies Section 22a-430-4(l) and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, DEEP may require the Permittee to perform acute or chronic whole effluent toxicity ("WET") testing.

The acute toxicity limit found in the previous permit of ≥90% survival at a critical test concentration ("CTC") of 100% effluent (No Observable Adverse Effluent Level ("NOAEL")) was developed consistent with Regs. Conn. State Agencies Section 22a-430-3(j)(7)(A)(i) and 22a-430-4(l)(5).

Semi-annual acute and annual chronic toxicity data was reviewed from 2020-2025. The highest acute toxicity reported was 92% survival in 100% effluent. The highest chronic toxicity reported was a no observable effect concentration ("C-NOEC") for invertebrate reproduction of 12.5% effluent.

NOAEL at 100% effluent is the most stringent limit possible for toxicity. Therefore, a reasonable potential analysis was not conducted for acute toxicity and the previous limit is being carried forward. Semi-annual monitoring will be required to determine compliance.

Commented [AD1]: Not following the logic hear. The limit was developed consistent with the regs, so no RP was conducted?

Detections of toxicity were observed in chronic WET tests. In evaluating chronic WET data, DEEP considered the average discharge duration of the facility. The facility discharges an average of 2 hours per day, 7 days per week. While, the chronic toxicity test is a 7-day test where test organisms are exposed to effluent for 7-days, 24-hours per day. Given the actual discharge duration is less than the chronic toxicity test period, the discharge is not likely to exceed the chronic toxicity test exposure period in the receiving water. Therefore, a reasonable potential analysis was not conducted for chronic toxicity. Chronic toxicity monitoring will remain in the permit in the event discharge duration increases at the facility.

3.8 Water Quality Based Effluent Limitations (WQBELs)

The CWA and federal regulations require that effluent limitations based on water quality considerations be established for point source discharges when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water. This is necessary when less stringent TBELs would interfere with the attainment or maintenance of water quality criteria in the receiving water. See CWA Section 301(b)(1)(C) and 40 CFR Section 122.44(d)(1),122.44(d)(5), 125.84(e) and 125.94(i).

Copper requires a WQBEL based on its potential to exceed the WQS. Copper will receive a limit of 8.8 µg/l and 20.4 µg/l as the average monthly and maximum daily limit in the permit. This limit applies to DSN 101. The WQBEL calculations are presented in Section 3.8.1. below.

The pH limits have been adjusted to 6.5-8.0 S.U. to align the WQS for class B waterbodies. This limit has been applied to both DSN 101 and 102.

3.8.1 WQBEL Calculations

Parameter with reasonable potential are given a waste load allocation ("WLA"). A WLA is calculated for each WQC. A long-term average ("LTA") is calculated from each WLA following the procedure found in the TSD. The lowest LTA is used to calculate an average monthly limit ("AML") and a maximum daily limit ("MDL"). These limits are protective of the waterbody and its designated uses. The equations and results of these calculations are listed below.

WLA Acute, Chronic, and Human Health ("HH") Equation

$$WLA_{acute,chronic,HH} = \frac{Q_d * C_{d(acute,chronic,HH} - Q_u * C_{u(acute,chronic,HH)}}{Q_e}$$

Qd = downstream flow = discharge flow + zone of influence
Cd = downstream concentration = Lowest WQC
Cu = upstream concentration
Qu = upstream flow = zone of influence
Qe = average permitted flow

LTA Acute Equation

$LTA_{acute} = WLA_{acute} \text{ X } e^{(0.5\sigma^2 - z\sigma)}$

LTA Chronic Equation

$LTA_{chronic} = WLA_{chronic} \text{ X } e^{(0.5\sigma_n^2 - z\sigma_n)}$

LTA Human Health ("HH") Equation

$LTA_{HH} = WLA_{HH}$

MDL Equation

$MDL = LTA \text{ X } e^{(z\sigma - 0.5\sigma^2)}$

Z = 1.645 for 95th percentile probability basis
Z = 2.326 for 99th percentile probability basis

AML Equation

$AML = LTA \text{ X } e^{(z\sigma_n - 0.5\sigma_n^2)}$

σ2 = ln(CV2 + 1)
n = number of samples per month, If < 4 = 4

Parameter	Lowest WLA	Lowest LTA	AML	MDL
Copper	4.8 µg/l	4.8 µg/l	8.87 µg/l	20.44 µg/l

These copper limits have been applied to DSN 101.

3.9 Technology Based Effluent Limitations

Technology-based treatment requirements represent the minimum level of control that must be imposed under CWA Section 301(b) and 402 to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. See 40 CFR Section 125 Subpart A and Regs. Conn. State Agencies Section 22a-430-4(l)(4)(A).

Subpart A of 40 CFR Section 125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA promulgated Effluent Limitation Guidelines (ELGs) and case-by-case determinations of effluent limitations under CWA Section 402(a)(1). EPA promulgates New Source Performance Standards (NSPS) under CWA Section 306 and 40 CFR Section 401.12. See also 40 CFR Section 122.2 (definition of "new source") and 122.29.

In the absence of published technology-based effluent limits in effluent limit guidelines, the permit writer is authorized under CWA Section 402(a)(1)(B) and Regs. Conn. State Agencies Section 22a-430-4(m) to establish effluent limitations on a case-by-case basis using best professional judgment (BPJ).

There are no federal TBELs for hydroelectric generation wastewaters.

Oil & Grease: An MDL of 10 mg/l and instantaneous max limit of 15 mg/l has been developed for oil and grease based on BPJ, pursuant to Regs. Conn. State Agencies Section 22a-430-4(m) and 40 CFR Part 125.3(a). This limit is based on the State's technology-based treatment requirements for certain industrial discharges published at Regs. Conn. State Agencies 22a-430-4(s). These limits are consistent with the previous permit.

3.10 Comparison of Limits

After preparing and evaluating applicable TBELs and WQBELs, the most stringent limits are applied in the permit. Pollutants of concern that only require monitoring without limits with are not included in the below table. A summary of the calculations used to determine reasonable potential and effluent limitations can be found above. The most stringent limits are highlighted in green.

DSN 101

Parameter	Units	DSN 101 Limit Comparison					
		BPJ		Water Quality Standards		Previous Permit	
		Average Monthly Limit or pH Minimum	Maximum Daily Limit or pH Maximum	Average Monthly Limit or pH Minimum	Maximum Daily Limit or pH Maximum	Average Monthly Limit or pH Minimum	Maximum Daily Limit or pH Maximum
Toxicity Acute	%				≥ 90%		≥ 90%
Copper	µg/L			8.8	20.4		
pH	SU			6.5	8.0	6.0	9.0
Oil and Grease*	mg/l		10				10

DSN 102

Parameter	Units	DSN 102 Limit Comparison					
		BPJ		Water Quality Standards		Previous Permit	
		Average Monthly Limit or pH Minimum	Maximum Daily Limit or pH Maximum	Average Monthly Limit or pH Minimum	Maximum Daily Limit or pH Maximum	Average Monthly Limit or pH Minimum	Maximum Daily Limit or pH Maximum
Toxicity Acute	%						≥ 90%
pH	SU			6.5	8.0	6.0	9.0
Oil and Grease*	mg/l						10

* This parameter contains an instantaneous limit of 15 mg/l.

3.11 Sampling Frequency, Type, And Reporting

DSN 101

Sample Type	Sample Frequency	Parameter	Reason
Daily Composite	Monthly	Copper	Regs. Conn. State Agencies Section 22a-430-4(l)(4)(A) and 22a-430-4(m)
	Semi-Annual	Acute Toxicity	
	Annual	Chronic Toxicity	
Grab	Monthly	Temperature	
	Monthly	Lead	
	Quarterly	Zinc	
	Semi-Annual	Tetrachloroethylene	
Grab Sample Average	Monthly	Oil and Grease	

DSN 102

Sample Type	Sample Frequency	Parameter	Reason
Grab	Monthly	Acute Toxicity	Regs. Conn. State Agencies Sections 22a-430-4(l)(4)(A) and 22a-430-4(m)
	Monthly	Copper	
		Lead	
		Zinc	
		Temperature	
		Tetrachloroethylene	
		Oil and Grease	

3.12 Other Permit Conditions

The permit contains a special condition that requires the Permittee to maintain a BMP for the 54" valve pit.

3.13 Compliance Schedule

There is no compliance schedule in the permit.

3.14 Antidegradation

Implementation of the Antidegradation Policy follows a tiered approach pursuant to the federal regulations (40 CFR Section 131.12) and consistent with the Connecticut Antidegradation Policy included in the Connecticut Water Quality Standards (Section 22a-426-8(b-f) of the Regulations of Connecticut State Agencies). Tier 1 Antidegradation review applies to all existing permitted discharge activities to all waters of the state. Tiers 1 and 2 Antidegradation reviews apply to new or increased discharges to high quality waters and wetlands, while Tiers 1 and 3 Antidegradation reviews apply to new or increased discharges to outstanding national resource waters.

This discharge is an existing discharge, and the Permittee does not propose an increase in volume or concentration of constituents. Therefore, only the Tier 1 Antidegradation Evaluation and Implementation Review was conducted to ensure that existing and designated uses of surface waters and the water quality necessary for their protection are maintained and preserved, consistent with Connecticut Water Quality Standards, Regs. Conn. State Agencies Sec.22a-426-8(a)(1). This review involved:

- An evaluation of narrative and numeric water quality standards, criteria and associated policies;
- The discharge activity both independently and in the context of other dischargers in the affected waterbodies; and
- Consideration of any impairment listed pursuant to Section 303d of the federal Clean Water Act or any TMDL established for the waterbody.

DEEP has determined that the discharges and associated activities are consistent with the maintenance, restoration, and protection of the existing and designated uses of the Housatonic River when following the conditions and limits written in the permit.

3.15 Anti-Backsliding

This permit has effluent limitations, standards or conditions that are at least as stringent as the final effluent limitations, standards, or conditions in the previous permit as required in 40 CFR Section 122.44(l) and Regs. Conn. State Agencies Section 22a-430-4(l)(4)(A)(xxiii).

3.16 Categorical Discharge Conditions

There are no applicable federal or state categorical discharge regulations for these discharges.

3.17 Cooling Water Intake Structure Section 316(B)

Section 316(b) of the Federal Water Pollution Control Act, U.S.C. Section 1326(b) states that "any standard established pursuant to Section 301 or 306 of this Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures (CWIS) reflect the best technology available (BTA) for minimizing adverse environmental impact".

The federal regulations establish requirements under Section 316(b) of the CWA for existing power generating facilities and existing manufacturing and industrial facilities with a cooling water intake structure having a design intake flow greater than 2 million gallons per day of water from waters of the United States and use at least 25 percent of the water they withdraw exclusively for cooling purposes. Section 125.92 defines "Cooling water intake structure" as "the total physical structure and any associated constructed waterways used to withdraw cooling water from waters of the United States. The cooling water intake structure extends from the point at which water is first withdrawn from waters of the United States up to and including the intake pumps."
Section 125.90(b), states "Cooling water intake structures not subject to requirements under Section 125.94 through 125.99 or subparts I or N of this part must meet requirements under Section 316(b) of the CWA established by the Director on a case-by-case, best professional judgment (BPJ) basis."

The August 15, 2014, 316(b) final rule applies to existing facilities that withdraw more than 2 MGD of water and uses at least 25% of the actual intake flow exclusively for cooling purposes. In July 2022, EPA published guidance to the Region and state in the Memorandum *Transmittal of the Revised Framework for Best Professional Judgment for Cooling Water intake Structures at Hydroelectric Facilities*. This document maintains EPA's interpretation that the 2014 rule's substantive provisions were not intended to apply to hydroelectric facilities and that instead CWIS at hydroelectric facilities are subject to site-specific requirements set on a BPJ basis pursuant to 40 CFR Section 125.90(b). The following factors are considered in establishing BTA on a BPJ basis in accordance with EPA's memo:

1. *Volume of cooling water used relative to other power generation facilities and relative to total water use at the facility*. The amount of cooling water used at the facility is comparable to the other hydroelectric facilities in Connecticut. The maximum water that could run through the facility is 1,131,112,800 gallons per day and the maximum flow of non-contact cooling water is 60,126 gallons per day. The percentage of cooling water used at the facility during maximum flow is 0.00005%;
2. *Cooling water withdrawn relative to waterbody flow*. The percentage of cooling water utilized would be approximately 0.0008% of the river's flow;
3. *Location of the intake structure.* The intake structure is located within the facility's penstock; and
4. *Technologies at the facility.* The facility's penstock includes trash racks to limit the flow of organisms and debris through the penstock. The trash racks are cleared when the pressure differential inhibits operations. Additionally, the design of the plant includes the use of a duplex strainer, which reduces impingement and entrainment.

Based on this information, DEEP's BPJ concludes that this facility meets BTA pursuant to 40 CFR Section 125.90(b).

3.18 Variances And Waivers

The Permittee did not request a variance or a waiver.

3.19 E-Reporting

The Permittee is required to electronically submit documents in accordance with 40 CFR Section 127.

Section 4 Summary Of New Permit Conditions And Limits From The Previous Permit

- DSN 104 has been combined into DSN 101 and is no longer in the permit.
- In DSN 101 the monitoring frequency for lead and copper have been increased to monthly.
- Limits have been included for copper based on a reasonable potential analysis.
- Reporting requirements have been updated for WET.
- WET data and paired chemical data is now required to be reported via NetDMR.

Section 5 Public Participation Procedures

5.1 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. 201502735 Permit No. CT0030287

Interested persons may obtain copies of the application from Kevin Gerardi, FirstLight CT Housatonic LLC, 200 Kent Road, New Milford, CT 06776.

The application is available for inspection by contacting Patrick Bieger at Patrick.bieger@ct.gov, 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.

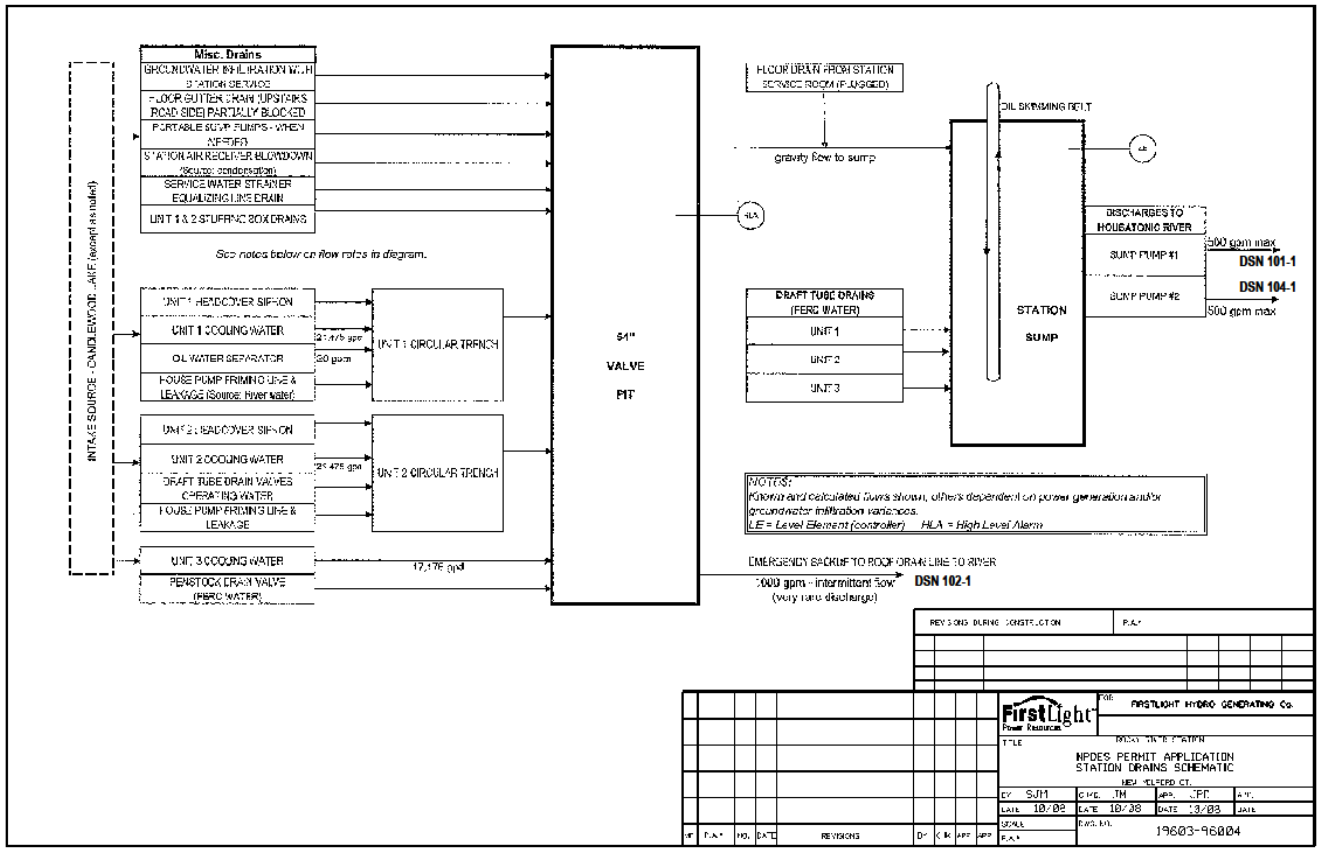
5.2 Public Comment

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 Patrick Bieger, Environmental Engineer II, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127 or DEEP.IndustrialNPDESPublicComments@ct.gov and should indicate the Permit ID No. CT0030287 in the subject line. 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 (25) persons. Notice of any public hearing shall be published at least thirty (30) days prior to the hearing.

Petitions shall be submitted within thirty (30) days from the date of publication of this public notice and 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. Upon receipt of a petition, the Commissioner shall take action as required by relevant laws, including Public Act 25-84, which was effective upon passage in June 2025. The Office of Adjudications will accept electronically-filed petitions for hearing in addition to those submitted by mail or hand-delivered. Petitions with required signatures may be sent to deep.adjudications@ct.gov; those mailed or delivered should go to the DEEP Office of Adjudications, 79 Elm Street, Hartford, CT 06106. If the signed original petition is only in an electronic format, the petition must be submitted with a statement signed by the petitioner that the petition exists only in that form. Original petitions that were filed electronically must also be mailed or delivered to the Office of Adjudications within 30 days of electronic submittal. Additional information can be found at www.ct.gov/deep/adjudications.

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act (ADA). If you are seeking a communication aid or service, have limited proficiency in English, wish to file an ADA or Title VI discrimination complaint, or require some other accommodation, including equipment to facilitate virtual participation, please contact the DEEP Office of Diversity and Equity at 860-418-5910 or by email at deep.accommodations@ct.gov. Any person needing an accommodation for hearing impairment may call the State of Connecticut relay number - 711. In order to facilitate efforts to provide accommodation, please request all accommodations as soon as possible following notice of any agency hearing, meeting, program, or event.

Attachment A



Notice of Tentative Determination
Intent to Renew a National Pollutant Discharge Elimination System Permit for Discharges into the Waters of the State of Connecticut

1.0 Tentative Decision

The Commissioner of the Department of Energy and Environmental Protection ("the Commissioner") hereby gives notice of a tentative determination to renew a permit based on an application and administrative record submitted by FirstLight CT Housatonic LLC ("the Applicant") under Section 22a-430 of the Connecticut General Statutes ("CGS") 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 determination that continuance of the existing system to treat the discharge would protect the waters of the state from pollution. The Commissioner proposes to renew a permit for the discharge to the Housatonic River. The proposed permit, if issued by the Commissioner, will require that all wastewaters be treated to meet the applicable effluent limitations.

2.0 Applicant's Proposal

FirstLight CT Housatonic LLC located at 200 Kent Road, New Milford, CT 06776;presently discharges up to 1,440,000 gallons per day of turbine leakage, cooling water, groundwater, and miscellaneous non-process waters via DSN 001 from hydroelectric generation operations at a hydroelectric facility. DSN 002 covers the discharge of up to 1,656,000 gallons per day of flood water in case of a facility flood.

The name and mailing address of the permit Applicant are:
First Light CT Housatonic LLC
143 West Street Suite E, New Milford, CT 06776.

3.0 Regulatory Conditions

3.1 Type of Treatment

DSN 101: Oil/water separator and oil skimming DSN 102: Surface oil removal

3.2 Effluent Limitations

This permit contains effluent limitations for oil and grease consistent with a case-by-case determination using the criteria of Best Professional Judgement and which will meet Water Quality Standards including the Anti-Degradation Policy. In accordance with Section 22a-430-4(l) of the Regulations of Connecticut State Agencies the permit contains Water Quality Based Effluent Limits for the following: pH, heavy metals, and toxicity.

4.0 Commissioner's Authority

The Commissioner of the Department of Energy and Environmental Protection is authorized to approve or deny such permits pursuant to Section 402(b) of the Federal Water Pollution Control Act, as amended, 33 USC 1251, et. seq. and Section 22a-430 of the CGS and the Water Discharge Permit Regulations (Section 22a-430-3 and 4 of the RCSA).

5.0 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. 201502735 Permit No. CT0030287

Interested persons may obtain copies of the application from
Kevin Gerardi,
FirstLight CT Housatonic LLC,
143 West Street Suite E, New Milford,
CT 06776

E-Mail: kevin.gerardi@firstlight.energy
Phone No.: (203) 470-8366.

The application is available for inspection by contacting Patrick Bieger, Environmental Engineer II, at (860) 424-3805 or patrick.bieger@ct.gov, at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 061065127 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.

6.0 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 Patrick Bieger, Environmental Engineer II, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 061065127 or DEEP.IndustrialNPDESPublicComments@ct.gov and should indicate the Permit No. CT0030287 in the subject line. 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 thirty (30) days prior to the hearing.

7.0 Petitions for Hearing

Petitions shall be submitted within thirty (30) days from the date of publication of this public notice and 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. Upon receipt of a petition, the Commissioner shall take action as required by relevant laws, including Public Act 25-84, which was effective upon passage in June 2025. The Office of Adjudications will accept electronically-filed petitions for hearing in addition to those submitted by mail or hand-delivered. Petitions with required signatures may be sent to deep.adjudications@ct.gov; those mailed or delivered should go to the DEEP Office of Adjudications, 79 Elm Street, Hartford, CT 06106. If the signed original petition is only in an electronic format, the petition must be submitted with a statement signed by the petitioner that the petition exists only in that form. Original petitions that were filed electronically must also be mailed or delivered to the Office of Adjudications within 30 days of electronic submittal. Additional information can be found at www.ct.gov/deep/adjudications.

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act (ADA). If you are seeking a communication aid or service, have limited proficiency in English, wish to file an ADA or Title VI discrimination complaint, or require some other accommodation, including equipment to facilitate virtual participation, please contact the DEEP Office of Diversity and Equity at 860-418-5910 or by email at deep.accommodations@ct.gov. Any person needing an accommodation for hearing impairment may call the State of Connecticut relay number - 711. In order to facilitate efforts to provide accommodation, please request all accommodations as soon as possible following notice of any agency hearing, meeting, program, or event.

Audra Dickson, Director
Water Permitting and Enforcement Division
Bureau of Materials Management and Compliance Assurance
Department of Energy and Environmental Protection

Dated: October 3, 2025