



**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:** 1<sup>st</sup> 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<sub>25</sub>" 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<sub>50</sub>" 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 <sup>2</sup>
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency <sup>1</sup>	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 <sup>3</sup>	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										
<b>Footnotes:</b>  <sup>1</sup> 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. <sup>2</sup> 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. <sup>3</sup> 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.										
<b>Remarks:</b>  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 <sup>5</sup>
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/Reporting Frequency <sup>2, 3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported	
Whole Effluent Toxicity (WET)										
Acute Aquatic Toxicity <sup>6</sup> <i>Daphnia pulex</i> , CTC=100% NOAEL	TOM3D	%	NA	NA	NR	Daily Composite	≥90	Semi-Annual	Grab	
Acute Aquatic Toxicity <sup>6</sup> <i>Pimephales promelas</i> , 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 <sup>7</sup>										
Date of Acute WET Chemistry Sample Collection <sup>8</sup>	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 <sup>5</sup>
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/ Reporting Frequency <sup>2, 3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	

**TABLE B FOOTNOTES AND REMARKS**

**Footnotes:**

- <sup>1</sup> 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.
- <sup>2</sup> 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.
- <sup>3</sup> 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.
- <sup>4</sup> Daily composite samples shall be collected for acute toxicity tests consistent with the methodology outlined in Section 7.1 of this permit.
- <sup>5</sup> "Minimum Level" refers to Section 6.3 of this permit.
- <sup>6</sup> 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.
- <sup>7</sup> 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.
- <sup>8</sup> 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: <b>DSN 101-CT</b>							Monitoring Locations: <b>Y – Chronic toxicity effluent results</b> <b>O – Day 1 chronic toxicity chemical analyses</b> <b>P – Day 3 chronic toxicity chemical analyses</b> <b>Q – Day 5 chronic toxicity chemical analyses</b> <b>R – Day 1 upstream monitoring</b> <b>S – Day 3 upstream monitoring</b> <b>T – Day 5 upstream monitoring</b>				
<b>Wastewater Description:</b> 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											
<b>Monitoring Location Description:</b> End of pipe discharge from sump pump #1 or sump pump #2											
<b>Discharge is to:</b> Housatonic River			<b>Zone of Influence:</b> NA			<b>Instream Waste Concentration:</b> 100%			<b>Outfall Location:</b> 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 <sup>5</sup>	MONIT-ORING LOCATION
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/Reporting Frequency <sup>2, 3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported		
<b>Whole Effluent Toxicity (WET)</b>											
Chronic Aquatic Toxicity (Survival) <sup>6</sup> <i>Ceriodaphnia dubia</i> , C-NOEC	TRP3B	%	NA	NA	NR	Daily Composite	----	Semi-Annual	Grab		Y
Chronic Aquatic Toxicity (Reproduction) <sup>6</sup> <i>Ceriodaphnia dubia</i> , C-NOEC	TPP3B	%	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		Y
Chronic Aquatic Toxicity (Survival) <sup>6</sup> <i>Pimephales promelas</i> , C-NOEC	TRP6C	%	NA	NA	NR	Daily Composite	----	Semi-Annual	Grab		Y
Chronic Aquatic Toxicity (Growth) <sup>6</sup> <i>Pimephales promelas</i> , C-NOEC	TPP6C	%	NA	NA	NR	Daily Composite	---	Semi-Annual	Grab		Y
<b>Chemical Analyses Required with Chronic Whole Effluent Toxicity Monitoring – See Section 7.2.7. for Chronic Testing<sup>7</sup></b>											
Date of Chronic WET Chemistry Sample Collection <sup>8</sup>	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: <b>DSN 101-CT</b>							Monitoring Locations: <b>Y – Chronic toxicity effluent results</b> <b>O – Day 1 chronic toxicity chemical analyses</b> <b>P – Day 3 chronic toxicity chemical analyses</b> <b>Q – Day 5 chronic toxicity chemical analyses</b> <b>R – Day 1 upstream monitoring</b> <b>S – Day 3 upstream monitoring</b> <b>T – Day 5 upstream monitoring</b>				
<b>Wastewater Description:</b> 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											
<b>Monitoring Location Description:</b> End of pipe discharge from sump pump #1 or sump pump #2											
<b>Discharge is to:</b> Housatonic River			<b>Zone of Influence:</b> NA			<b>Instream Waste Concentration:</b> 100%			<b>Outfall Location:</b> 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 <sup>5</sup>	MONIT-ORING LOCA-TION
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/ Reporting Frequency <sup>2, 3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	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: <b>DSN 101-CT</b>							Monitoring Locations: <b>Y – Chronic toxicity effluent results</b> <b>O – Day 1 chronic toxicity chemical analyses</b> <b>P – Day 3 chronic toxicity chemical analyses</b> <b>Q – Day 5 chronic toxicity chemical analyses</b> <b>R – Day 1 upstream monitoring</b> <b>S – Day 3 upstream monitoring</b> <b>T – Day 5 upstream monitoring</b>				
<b>Wastewater Description:</b> 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											
<b>Monitoring Location Description:</b> End of pipe discharge from sump pump #1 or sump pump #2											
<b>Discharge is to:</b> Housatonic River			<b>Zone of Influence:</b> NA			<b>Instream Waste Concentration:</b> 100%			<b>Outfall Location:</b> 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 <sup>5</sup>	MONIT-ORING LOCATION
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/ Reporting Frequency <sup>2, 3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	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: <b>DSN 101-CT</b>	Monitoring Locations: <b>Y – Chronic toxicity effluent results</b> <b>O – Day 1 chronic toxicity chemical analyses</b> <b>P – Day 3 chronic toxicity chemical analyses</b> <b>Q – Day 5 chronic toxicity chemical analyses</b> <b>R – Day 1 upstream monitoring</b> <b>S – Day 3 upstream monitoring</b> <b>T – Day 5 upstream monitoring</b>
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**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

<b>Discharge is to:</b> Housatonic River	<b>Zone of Influence:</b> NA	<b>Instream Waste Concentration:</b> 100%	<b>Outfall Location:</b> Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")
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PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINI-MUM LEVEL <sup>5</sup>	MONIT-ORING LOCATION
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/Reporting Frequency <sup>2,3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported		

**TABLE C FOOTNOTES AND REMARKS**

- Footnotes:**
- <sup>1</sup> 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.
  - <sup>2</sup> 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.
  - <sup>3</sup> 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.
  - <sup>4</sup> Daily composite samples shall be collected for chronic toxicity tests consistent with the methodology outlined in Section 7.2 of this permit.
  - <sup>5</sup> "Minimum Level" refers to Section 6.3 of this permit.
  - <sup>6</sup> 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<sub>25</sub> 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.
  - <sup>7</sup> 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.
  - <sup>8</sup> 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:**
- 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.
  - 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.
  - 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.
  - 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 <sup>2</sup>
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency <sup>1</sup>	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										
<u>Footnotes:</u>										
<sup>1</sup> 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.										
<sup>2</sup> 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.										
<u>Remarks:</u>										
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 <sup>5</sup>
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/Reporting Frequency <sup>2, 3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported	
Whole Effluent Toxicity (WET)										
Acute Aquatic Toxicity <sup>6</sup> <i>Daphnia pulex</i> , CTC=100% NOAEL	TOM3D	%	NA	NA	NR	Daily Composite	≥90%	Monthly	Grab	
Acute Aquatic Toxicity <sup>6</sup> <i>Pimephales promelas</i> , 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 <sup>7</sup>										
Date of Acute WET Chemistry Sample Collection <sup>8</sup>	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**

<b>Discharge Serial Number:</b> DSN 102-AT							<b>Monitoring Locations:</b> T – Acute toxicity effluent results and chemical analyses			
<b>Wastewater Description:</b> 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										
<b>Monitoring Location Description:</b> Outlet from roof drain line										
<b>Discharge is to:</b> Housatonic River			<b>Zone of Influence:</b> NA			<b>Instream Waste Concentration:</b> 100%		<b>Outfall Location:</b> Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")		
PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL <sup>5</sup>
			Average Monthly Limit	Minimum Daily Limit or Maximum Daily Limit <sup>1</sup>	Sample/Reporting Frequency <sup>2, 3</sup>	Sample Type or Measurement to be reported <sup>4</sup>	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:**

- <sup>1</sup> 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.
- <sup>2</sup> 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.
- <sup>3</sup> 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.
- <sup>4</sup> Daily composite samples shall be collected for acute toxicity tests consistent with the methodology outlined in Section 7.1 of this permit.
- <sup>5</sup> "Minimum Level" refers to Section 6.3 of this permit.
- <sup>6</sup> 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.
- <sup>7</sup> 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.
- <sup>8</sup> 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; 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); 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.

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## 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.
- 7.1.5.2 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 ( $\pm 5$  mg/L) as  $\text{CaCO}_3$  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 ( $\pm 5$  mg/l) as  $\text{CaCO}_3$  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<sub>50</sub> 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](mailto: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](mailto: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

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JENNIFER PERRY, P.E.  
Bureau Chief

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