



National Pollutant Discharge Elimination System Permit Factsheet

NPDES Permit Summary	
Applicant/Permittee	McCallum Enterprises I Limited Partnership
Permit No.	CT0030732
Application No.	201909321
Date Application Received	8/19/2019
Location Address	305 Canal Street East, Shelton, Connecticut 06484
Facility Contact	Joseph Szarmach, President Phone: (203) 913-2940 Email: joseph.szarmach@gmail.com
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DMR Contact	Kristin Taylor, Operations Manager Phone: (203) 386-1745 Email: melphydro@gmail.com
Secretary of State Business ID	0529488
Permit Term	5 Years
Permit Category	Minor NPDES
SIC & NAICS Code(S)	4911
Applicable Effluent Limit Guidelines	NA
Permit Type	New Issuance
Ownership	Privately Owned Facility
Receiving Water	DSN 101-1: Housatonic River
Waterbody Segment Id's	CT6000-00_02
Waterbody Classification	B
Discharge Location	Latitude: 41.324337, Longitude: -73.102080
Compliance Actions	NOVWRIN 19 007
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Section 1.0 Facility Summary

1.1 Permit Fees

Application Fee:

Filing Fee	Invoice No.: DEP333278	Amount: \$1,300	Date Paid: 8/19/2019
Processing Fee	Invoice No.: DEP439734	Amount: \$1,300	Date Paid: 8/18/2025

Annual Fee:

	WASTEWATER CATEGORY (per Regs. Conn. State Agencies Sec. 22a-430-7)	FLOW CATEGORY	DSN	ANNUAL FEE (per Regs. Conn. State Agencies Sec. 22a-430-7 and Conn. Gen. Stat. Sec. 22a-6f)
	<i>Non-Contact Cooling Water</i>	5,000 – 100,000 gpd	101-1	\$660
	<i>Floor Drain Wastewater – Including: river water drained from turbines during maintenance periods and turbine leakage.</i>	All flows	101-1	\$0
TOTAL				\$660

1.2 Application Submittal Information

On August 19, 2019, the Department of Energy and Environmental Protection (“DEEP”) received an application (Application 201909321) from McCallum Enterprises I Limited Partnership (“the Permittee”, “the Applicant”) in Shelton, for the issuance of its NPDES Permit No. CT0030732.

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 Connecticut Post on June 8, 2019. On November 7, 2025, the application was determined to be timely and administratively sufficient.

The Permittee seeks authorization for the following in Application 201909321:

DSN	PROPOSED MAXIMUM DAILY FLOW	PROPOSED WASTESTREAMS	TREATMENT TYPE	DISCHARGE TO
101-1	34,000 gpd	Turbine Wicket Gate Water Seal Leakage; Turbine Shaft Water Seal Leakage; Non-Contact Cooling Water; Mechanical Seal Leakage; and river water drained from turbines during annual maintenance.	Oil/Water Separator	Housatonic River

1.4 Facility Description

The Permittee's facility is a Federal Energy Regulatory Commission ("FERC") licensed hydroelectric generation plant, located on Lake Housatonic and the Housatonic River, in the cities of Shelton and Derby, CT. The facility is a run-of-river-station, operating based on the water level and flow of its intake stream (Housatonic River). The facility is equipped with twin horizontal double regulated axial turbines. The facility was constructed in 1988 and started operation at the same time.

The twin horizontal turbines have a hydraulic range of 900 cubic feet per second ("cfs") to 2300 cfs per turbine. The turbines are directly connected to a synchronous generator. The wicket gate arms and turbine blades are actuated with hydraulic cylinders. The generator and turbine bearing consist of both oil sumps and water cooling. The turbines and associated systems are within a secured and alarmed concrete powerhouse.

The facility generates wastewater consisting of turbine wicket gate water seal leakage, turbine shaft water seal leakage, mechanical seal leakage, non-contact cooling water from the heat exchanger, and river water drained from the turbines during annual maintenance activities. Routine wastewater, including the seal leakage and non-contact cooling water, is generated at a maximum daily flow of 20,000 gpd. During maintenance periods, the turbines are shut down and river water contained within the turbine casings is drained at a maximum daily flow of 34,000 gpd. All wastewater streams are collected through a network of trench drains and conveyed to an oil/water separator. The treated wastewater then combines with the turbine flow-through water in the turbine tailrace before being discharged through DSN 101-1 to the Housatonic River.

The turbine flow-through water is not regulated under this permit because it is diverted river water used for hydroelectric generation and does not constitute a wastewater discharge.

1.5 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 current 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).

This is a new permit, hence there were no requested changes to the facility for this permit issuance.

1.6 Treatment System Description

This facility uses an oil/water separator system which captures oil leakage from the hydroelectric turbines before it is discharged into the receiving water.

1.7 Compliance History

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

Notice of violation (“NOV”) NOVWRIN19 007 was issued for discharging unknown volume of oil into the Housatonic River on December 20, 2018 and discharging floor drain wastewater to the Housatonic River without a permit under Section 22a-430 of the Conn. Gen. Stat. The NOV required the Permittee to implement best management practices to prevent release of hydraulic oil to the Housatonic River. The NOV also required the Permittee to submit an application to obtain a permit to discharge non-contact cooling water and building floor drain wastewater from the oil/water separator to the Housatonic River. The Permittee responded to the NOV by removing oil from the separator tank, repairing the water seal, increasing surveillance of the oil/water separator, and submitting a NPDES application on August 19, 2019. The NOV remains active and will be re-evaluated upon issuance of the permit.

1.8 General Issues Related to the Application

1.8.1 Federally Recognized Indian Land

The facility is not located on federally recognized Indian land.

1.8.2 Coastal Area/Coastal Boundary

The facility is not located within a coastal boundary as defined in Conn. Gen. Stat. 22a-94(b).

1.8.3 Endangered Species

As provided in the permit application, the facility is located within an area identified as a habitat for endangered, threatened or special concern species according to the June 2025 [*State and Federal Listed Species and Natural Communities Map*](#). A National Diversity Data Base (“NDDB”) request was made during the application process.

Based on May 6, 2019, letter provided to the Permittee from the NDDB Program for the discharges covered under Permit No. CT0030732, it was determined that the area for the wastewater discharge from the Derby Hydroelectric facility to the Housatonic River in Shelton and Derby, is a federally designated Critical Habitat for Federal and State Endangered Atlantic sturgeon and also State Special Concern blueback herring.

A Fisheries Consultation Form has been submitted to the DEEP Fisheries Program for review. *The endangered species conditions are subject to change contingent upon DEEP Fisheries Program’s review.*

1.8.4 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.

1.8.5 Conservation or Preservation Restriction

As provided in the permit application, the property is not subject to a conservation or preservation restriction.

1.8.6 Public Water Supply Watershed

As provided in the permit application, the site is located within a public water supply watershed.

Section 2 Receiving Water Body Information

The upstream water classification of section CT6000-005+L4_01 of the Housatonic River is B. Class B waters are designated for: habitat for fish and other aquatic life and wildlife; recreation; and industrial and agricultural water supply. This waterbody segment is listed on the State's 305(b) list of impaired waters for its designated uses of fish consumption and recreation. The cause of impairment is the presence of chlorophyll-A, algae, and nutrients.

The downstream river segment, CT6000-00_02 of the Housatonic River, is a class "B" water. This waterbody segment is listed on the State's 305(b) list of impaired waters. The cause of impairment is the presence of *Escherichia coli* (*E. coli*). The 2024 results of assessed and impaired waters are listed on the Connecticut Integrated Water Quality Report ("IWQR"): <https://portal.ct.gov/DEEP/Water/Water-Quality/Water-Quality-305b-Report-to-Congress>.

This permit applies the Connecticut Water Quality Standards for Class B surface waters associated with the downstream river segment, CT6000-00_02. The salinity regime for the receiving water is freshwater; therefore, the most stringent freshwater criteria have been evaluated.

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	Insufficient Information	Not Supporting

2.1 Designated Uses

The designated uses for Class B waters as defined in the Regulations of Connecticut State Agencies [Regs. Conn. State Agencies Section 22a-426-4\(h\)](#) are: 1) habitat for fish other aquatic life and wildlife; 2) recreation; 3) harvesting; and 4) industrial and agricultural water supply.

2.2 Applicable Total Maximum Daily Load ("TMDL")

This river segment is subject to the statewide Long Island Sound ("LIS") Total Maximum Daily Load ("TMDL") titled A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound (https://portal.ct.gov/-/media/deep/water/lis_water_quality/nitrogen_control_program/tmdlpdf.pdf). This TMDL was developed to address low dissolved oxygen levels in LIS. The LIS TMDL focuses on excess nitrogen loading as the primary cause of hypoxia, rather than low dissolved oxygen resulting

directly from end-of-pipe discharges. Elevated nitrogen inputs stimulate algal growth, and the subsequent decomposition of organic matter depletes oxygen in bottom waters, leading to dissolved oxygen impairment.

The Permittee's discharge has not been assigned a waste load allocation for nitrogen as part of this TMDL. Nitrogen was not identified as a pollutant of concern and is not associated with the facility's operation or discharge; therefore, nitrogen monitoring requirements have not been included in this permit.

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Figure 1. Image of discharge location with waterbody segment ID



Section 3 Permit Conditions and Effluent Limitations

3.1 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”).

3.2 Pollutants of Concern

The following constituents have been identified as pollutants of concern in the permit for the reasons noted below:

POLLUTANT	REASON FOR INCLUSION			
	POLLUTANT WITH AN APPLICABLE TECHNOLOGY-BASED LIMIT	POLLUTANT WITH A WASTE LOAD ALLOCATION FROM A TMDL	POLLUTANT IDENTIFIED AS PRESENT IN THE EFFLUENT THROUGH SAMPLING	POLLUTANT OTHERWISE EXPECTED TO BE PRESENT IN THE EFFLUENT
Copper, Total				X
Lead, Total				X
Oil and Grease, Total				X
Temperature			X	
Zinc, Total			X	

pH monitoring is also included in the permit consistent with Section 22a-426-9(a)(1).

3.3 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 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”).

The Steam Electric Power Generating Point Source Category at 40 CFR Part 423 was reviewed. According to 40 CFR 423.10, this category is applicable to facilities that produce electricity primarily from a process utilizing fossil-type fuel (coal, oil, or gas) and fuel derived from fossil fuel (e.g., petroleum coke, synthesis gas). Since the Permittee’s facility produces electricity utilizing water from the Housatonic River, the federal effluent limit guideline does not apply.

No other categories found under 40 CFR Chapter 1 Subchapter N match the description of wastewater discharged by DSN 101. Given there are no federal TBELs applicable to this operation, the following BPJ limits were developed:

Oil and Grease: The facility has an oil water separator to remove oil and grease from wastewater associated with the oil cooled bearings. Oil and grease limitations of 10 mg/L, maximum daily limit, and 15 mg/L, instantaneous maximum limit, have been established 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).

3.4 Waterbody Ambient Condition

PARAMETER	VALUE
7Q10	170 cfs

3.5 Zone of Influence

A zone of influence has not been allocated in this permit.

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, 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.” See 40 CFR Section 122.44(d)(1)(i). 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 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 single data point for temperature, copper, lead, and zinc was provided in the Permittee's application. This is insufficient data to perform a reasonable potential analysis; therefore, DEEP is requiring additional monitoring for these pollutants of concern.

Temperature: The facility discharges non-contact cooling water associated with the cooling of bearings used in the turbines; therefore, temperature is a pollutant of concern. A weekly monitoring frequency of temperature has been included in the permit to assess the variability of temperature in the discharge.

Copper, Lead, and Zinc: Similar to other hydroelectric facilities that capture wastewater throughout the facility in a dedicated sump and utilize oil and water-cooled bearings, copper, lead, and zinc are suspected to be present in the discharge. Consequently, these parameters have been incorporated into the monitoring requirements. This monitoring will be used for future reasonable potential analyses once sufficient data is collected. The minimum levels for copper, lead, and zinc are 0.003 mg/L, 0.001 mg/L, and 0.02 mg/L respectively, to ensure that the testing methodologies are sufficiently sensitive to assess compliance with the WQS.

3.7 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).

Temperature, Copper, Lead, and Zinc: As described above, a single data point for temperature, copper, lead, and zinc was provided in the Permittee's application. This is insufficient data to perform a reasonable potential analysis and calculate WQBELs; therefore, DEEP is requiring additional monitoring for these pollutants of concern. This monitoring will be used for future reasonable potential analyses once sufficient data is collected.

pH: A pH limit of 6.5 to 8.0 was established consistent with the Class B criteria of the WQS.

The following provision was added to the pH monitoring requirements to account for circumstances when the intake water is not in compliance with WQS, prior to entering the oil/water separator: "The discharge pH shall be in the range of 6.5 – 8.0 S.U. unless the ambient receiving water is outside of this range and is not altered by the facility's permitted discharge or activities under this permit. If the Permittee's discharge pH is lower than 6.5 S.U., the Permittee may demonstrate compliance by showing that the discharge pH is either higher than, or no more than 0.5 S.U. lower than the pH of the intake water. If the Permittee's discharge is higher than 8.0 S.U.,

the Permittee may demonstrate compliance by showing that the discharge pH is either lower than, or no more than 0.5 S.U. higher than the intake water.

For this demonstration, the intake water shall be collected within one hour of the effluent sample. If the discharge satisfies this condition, the Permittee shall report no data indicator ("NODI") code – "3" (special report attached) and submit the intake and discharge pH data used in the analysis as an attachment to the DMR. If the discharge does not satisfy this provision, then the Permittee is in violation of the effluent limit and shall respond to the noncompliance consistent with Section 8 of the permit. The Permittee shall keep a record of the dates and results of all intake and discharge events on site."

3.8 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 testing.

The wastewater is comprised of turbine leakage and non-contact cooling water. The source of the wastewater is intake water from Lake Housatonic, located upstream of the discharge. No chemicals or other substances are added to the water while in the turbine or when used for cooling. Therefore, the water discharged from the turbines and the non-contact cooling water are characteristically similar to the Housatonic River. Toxicity is not expected in the effluent due to the characteristics of the discharge.

3.9 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 table below.

PARAMETER	UNITS	LIMITS			
		TBELs		WQBELs	
		<i>Water Quality Standards</i>			
		AVERAGE MONTHLY LIMIT	MAXIMUM DAILY LIMIT/INSTANTANEOUS MAX	AVERAGE MONTHLY LIMIT	MAXIMUM DAILY LIMIT
Flow	gpd		34,000		
Oil and Grease	mg/L	NA	10 / 15		
				MIN	MAX
pH	SU			6.5	8.0

3.10 Effluent limitations, Sampling Frequency, and Type

Pollutants	Limit	Basis For Limit	Monitoring/ Reporting Frequency	Sample Type
DSN 101-1:				
Copper, Total	Monitoring only requirement for pollutants of concern		Semi-Annually	Grab
Flow	34,000 gpd	Permitted discharge flow per application	Daily	NA
Lead, Total	Monitoring only requirement for pollutants of concern		Semi-Annually	Grab
Oil & Grease, Total	MDL = 10 mg/L MIL = 15 mg/L	TBELs	Monthly	Grab Sample Average
pH, Minimum	6.5 SU	WQBELs	Monthly	Grab
pH, Maximum	8.0 SU	WQBELs	Monthly	Grab
Temperature	Monitoring only requirement for pollutants of concern		Weekly	Grab
Zinc, Total	Monitoring only requirement for pollutants of concern		Semi-Annually	Grab
MDL: Maximum Daily Limit		WQC: Water Quality Criteria		
MIL: Maximum Instantaneous Limit		WQBELs: Water Quality Based Effluent Limit		

3.10.1 Sufficiently Sensitive Methods:

EPA at [40 CFR 122.21\(e\)\(3\)](#) and [40 CFR 122.44\(i\)](#) requires sufficiently sensitive test methods to be utilized for all parameters in a NPDES permit. A method approved under 40 CFR 136 or required through other regulations is sufficiently sensitive when:

- The method minimum level (“ML”) is at or below the level of the applicable water quality criterion or effluent limitation (if below the water quality criterion), whichever is more stringent, for the measured pollutant or pollutant parameter; or
- The method ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
- The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter I, subchapter N (effluent limit guidelines) or O (sewage sludge) for the measured pollutant or pollutant parameter. Note some effluent limit guidelines (“ELGs”) will specify a required ML for certain analyses.

DEEP has specified ML requirements in the permit to ensure compliance with the sufficiently sensitive test method regulations. The MLs listed in the NPDES permit are the minimum concentration at which quantification must be achieved and verified during the laboratory analysis of the parameter. These values are not necessarily equivalent to the MLs that would be formally established by a lab under the ML definition at 40 CFR 136. In other words, at a minimum, the permittee's analytical method must achieve the ML listed in the permit. This may vary from the actual ML established by the lab for the analysis, using the MDL, lowest calibration point, or other acceptable method under 40 CFR 136.

3.11 Compliance Schedule

The permit has a compliance schedule that follows the requirements found under 40 CFR Section 122.47 and RSCA Section 22a-430-4(l)(3).

Does the Permit contain a compliance schedule? Yes ☐ No ☒

3.12 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.

The facility and its discharges have existed since 1988. The source water for the facility is the Housatonic River and the facility does not intentionally add chemicals nor alter the water prior to it flowing back to the Housatonic River. DEEP has determined the discharges will not have a negative impact on the water quality of the Housatonic River.

DEEP has determined that the discharges and activities are consistent with the maintenance, restoration, and protection of existing and designated used assigned to the receiving water body by considering all relevant available data.

3.13 Anti-Backsliding

This is the first permit for the facility and its wastewater discharges; hence an anti-backsliding evaluation is not required to be performed.

3.14 Categorical Discharge Conditions

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

3.15 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 for regions and states in the following 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; 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 this facility is comparable to the other hydroelectric facilities in Connecticut. The maximum water that runs through the facility is 2,973,057,662 gpd. The maximum flow of NCCW is 900 gallons per day. The percentage of cooling water used at the facility during maximum flow is 0.000030%;
2. *Cooling water withdrawn relative to waterbody flow.* The percentage of cooling water utilized would be approximately 0.00082% of the river’s 7Q10 flow;
3. *Location of the intake structure.* The intake structure is located within the facility’s penstock.
4. *Technologies at the facility.* Cooling water is drawn from a 6-inch pipe located behind the trash racks. These trash racks are designed to limit the passage of organisms and debris

into the system. Impingement and entrainment are further minimized at the cooling water intake through plant design features, including the use of a duplex strainer. The intake pipe is reduced from 6 inches to 4 inches before entering the strainer, and then further reduced to 1.5 inches for distribution to the generating unit's cooling water system. These design characteristics limit the passage of organisms through the system.

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

3.16 Variances and Waivers

The facility did not request a variance or a waiver.

3.17 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

This section is not applicable given this is the first permit for the facility.

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. 201909321

PERMIT ID NO. CT0030732

Interested persons may obtain copies of the application from McCallum Enterprises Limited Partnership, Derby Hydroelectric Project, 305 Canal Street East, Shelton, CT 06484.

The application is available for inspection by contacting Rehnuma Maisha (rehnuma.maisha@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 8:00 - 4:00, 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 Rehnuma Maisha, Environmental Analyst, 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. CT0030732 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 for a hearing 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. 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 thirty (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.