National Pollutant Discharge Elimination System Permit
issued to

King Industries, Inc.
Science Road
Norwalk, CT 06852

Location Address:
Science Road
Norwalk, CT 06852

Permit ID: CT0000841

Effective Date: TBD

Receiving Water Body: Norwalk Harbor
(LIS WB Inner)

Issuance Date: TBD

Receiving Water Body ID: CT-W1_012-SB

Permit Expires: TBD

SECTION 1: GENERAL PROVISIONS

(A) 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 NPDES permit program.

(B) **King Industries, Inc.,** ("Permittee") shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to Section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of 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

(C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.

(D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under Section 22a-438 or 22a-131a of the CGS or in accordance with Section 22a-6, under Section 53a-157b of the CGS.

(E) 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 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.

(F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.

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

(H) An annual fee shall be paid for each year this permit is in effect as set forth in Section 22a-430-7 of the RCSA.

(I) These permitted discharges are consistent with the applicable goals and policies of the Connecticut Coastal Management Act (Section 22a-92 of the Connecticut General Statutes).

(J) 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)

(K) 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

(A) The definitions of the terms used in this permit shall be the same as the definitions contained in Section 22a-423 of the CGS and Section 22a-430-3(a) and 22a-430-6 of the RCSA.

(B) 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.

"Daily Quantity" means the quantity of waste discharged during an operating day.

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

"DMR" means Discharge Monitoring Report.

"Dry weather discharge" means wastewater comprising of cooling tower blowdown, steam condensate from boiler operations, fire suppression testing wastewater and residual stormwater that has accumulated in the sedimentation basin from tank farm pump outs.

"Dry weather discharge sampling" means the sampling of any discharge that is not, or contains trace amounts of stormwater, snow melt, or ice melt. Sampling shall occur after at least 48 hours of dry weather and no less than 48 hours after the last tank farm pump out to ensure negligible amounts of stormwater are present within the basin.

"IC" means "Inhibition Concentration".

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

"Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"In-stream Waste Concentration" ("IWC%") means the concentration (as a percent) of the effluent in the receiving water.

"LC" means Lethal Concentration

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

"Lowest Observed Effect Concentration" ("LOEC") means the lowest concentration of an effluent or toxicant to which organisms are exposed in a life cycle or partial life-cycle test, which causes adverse effects on the test organisms.

"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.

"Quarter" means the calendar quarter beginning at 12:00 AM on the first day of January, April, July and October and ending at 12:00 AM on the first day of April, July and October, and January, respectively.

"Quarterly", when used as a sampling frequency in this permit, means that sampling is required in the months of January, April, July and October.

"Quarterly" when used as a sampling frequency in Table A (Dry weather discharge sampling only) of this permit, means that sampling is required in the months of January, April, July, and October.

"Quarterly" when used as a sampling frequency in Table B (Wet weather discharge sampling only) of this permit, means that sampling events shall be conducted between January 1 - March 31, April 1 - June 30, and July 1 - September 30, and October 1 - December 31.

"Range During Sampling" ("RDS"), as a sample type, means the maximum and minimum of all values recorded as a result of analyzing each grab sample of: 1) a Composite Sample or, 2) a Grab Sample Average. For those permittees with continuous monitoring and recording pH meters, Range During Sampling means the maximum and minimum readings recorded with the continuous monitoring device during the Composite or Grab Sample Average sample collection.

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

"Semiannual" when used as a sampling frequency in Table A (Dry weather discharge sampling only) of this permit, means that sampling is required in the months of January and July.

"Semiannual" when used as a sampling frequency in Table B (Wet weather discharge sampling only) of this permit, means that one sampling event shall be conducted between October 1 - March 31 and the other sampling event shall be conducted between April 1 - September 30.

"Stormwater" means waters consisting of rainfall runoff, including snow or ice melt during a rain event.

"µg/l" means micrograms per liter.

"Wet weather discharge" means wastewater comprising of stormwater and cooling tower blowdown, steam condensate from boiler operations, and fire suppression testing wastewater.

"Wet weather discharge sampling" means the sampling of any discharge that is comingled with stormwater, snow melt, or ice melt.

SECTION 3: COMMISSIONER'S DECISION

(A) The Commissioner has issued a final determination and found that continuance of the existing system to treat the discharges will protect the waters of the state from pollution. The Commissioner's decision is based on Application 202302698 for permit reissuance received on March 27, 2023, and the administrative record established in the processing of that application.

(B) 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 202302698, received by the Commissioner on March 27, 2023, 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.

(C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions 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.

(D) This permit includes a determination regarding Section 316(a) of the Federal Water Pollution Control Act 33 U.S.C. § 1326(a) regarding the thermal component of the discharge, 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.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

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

(B) 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.

(C) No discharge shall cause acute or chronic toxicity in the receiving water body beyond any zone of influence specifically allocated to that discharge in this permit.

(D) The temperature of any discharge shall not increase the temperature of the receiving stream above 83^{o}F, or, in any case, raise the normal temperature of the receiving stream more than 4^{o}F, beyond the approved zone of influence. The incremental temperature increase in coastal and marine waters is limited to 1.5^{o}F during the period including July, August, and September.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(A) 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 "Remarks" and "Footnotes" noted in the tables that follow. Such remarks and footnotes are enforceable like any other term or condition of this permit.

(B) 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.

(C) 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.

(D) 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.

(E) The limits specified in Table A, B, and C shall apply during dry weather discharges. Wet weather and stormwater discharges are subject to the monitoring and reporting requirements specified in Tables D, E, and F.

TABLE A – DRY WEATHER DISCHARGES	
Discharge Serial Number: DSN 001-D	**Monitoring Location:** 1 (External outfall)
Wastewater Description: Dry weather discharges of cooling tower blowdown, steam condensate from boiler operations, fire suppression testing wastewaters, and residual of the wet weather discharge	
Monitoring Location Description: Sedimentation basin outlet (Dry weather discharge sampling only)	**Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")
Allocated Zone of Influence (ZOI): 104,166 gph **Allocated Thermal Zone of Influence:** 21,158 gph	**In-stream Waste Concentration (IWC):** 1.0%

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL [2] (µg/l)
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1,3]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	
Aluminum, total	01105	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	10.0
Ammonia as N, total	00610	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Biochemical Oxygen Demand (5-day)	00310	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Chemical Oxygen Demand	00335	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Chlorine, total residual	50060	mg/l	7.5	16.2	Quarterly	Grab Sample Average	24.3	NR	Grab	20.0
Copper, total	01042	mg/l	0.046	0.077	Quarterly	Daily Composite	0.115	NR	Grab	3.0
Enterococci	61211	#/100 ml	NA	NA	NR	NA	---	Quarterly	Grab	
Extractable Total Petroleum Hydrocarbon	46116 [7]	mg/l	NA	NA	NR	NA	---	Semiannually	Grab	
Fecal coliform	74055	#/100 ml	NA	NA	NR	NA	---	Quarterly	Grab	
Flow Rate, Average daily[8]	00056	Gpd	25,000	NA	Continuous/ Quarterly	Daily Flow	NA	NR	NA	
Flow, Maximum during 24-hour period[8]	50047	Gpd	NA	47,000	Continuous/ Quarterly	Daily Flow	NA	NR	NA	
Formaldehyde	71880	mg/l	NA	NA	NR	NA	---	Semiannually	Grab	50.0
Iron, total	01045	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	100.0
Kjeldahl Nitrogen, Total (as N)	00625	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	1.0
Lead, total	01051	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	5.0
Nitrate (as N)	00620	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Nitrite (as N)	00615	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Nitrogen, Total [See Remark 5]	00600	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Oil petroleum, total recoverable	31667	mg/l	---	---	Quarterly	Grab Sample Average	NA	NR	NA	
pH, Minimum[9] (Ends 12 months after permit's effective date)	61942	S.U.	NA	NA	NR	NA	6.0	Continuous/ Quarterly	Continuous	
pH, Maximum[10] (Ends 12 months after permit's effective date)	61941	S.U.	NA	NA	NR	NA	9.0	Continuous/ Quarterly	Continuous	
pH, Minimum[9] (Applicable 12 months after permit's effective date)	61942	S.U.	NA	NA	NR	NA	6.8	Continuous/ Quarterly	Continuous	

TABLE A – DRY WEATHER DISCHARGES	
Discharge Serial Number: DSN 001-D	**Monitoring Location:** 1 (External outfall)
Wastewater Description: Dry weather discharges of cooling tower blowdown, steam condensate from boiler operations, fire suppression testing wastewaters, and residual of the wet weather discharge	
Monitoring Location Description: Sedimentation basin outlet (Dry weather discharge sampling only)	**Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")
Allocated Zone of Influence (ZOI): 104,166 gph **Allocated Thermal Zone of Influence:** 21,158 gph	**In-stream Waste Concentration (IWC):** 1.0%

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL [2] (µg/l)
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1,3]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	
pH, Maximum[10] (Applicable 12 months after permit's effective date)	61941	S.U.	NA	NA	NR	NA	8.5	Continuous/ Quarterly	Continuous	
Phosphorus, Total	00665	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	100.0
Surfactants (methylene blue active substances (MBAS))	38260	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Temperature, Continuous	00011	°F	---	NA	NR	NA	95.0	Continuous/ Quarterly	Continuous	
Total Dissolved Solids	70295	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Total Organic Carbon	00680	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Total Suspended Solids	00530	mg/l	---	30	Quarterly	Daily Composite	45	NR	Grab	
Total Toxic Organics [11]	78141	mg/l	NA	NA	NR	NA	---	Semiannually	Grab	10.0
Zinc, total	01092	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	10.0

TABLE A – DRY WEATHER DISCHARGES	
Discharge Serial Number: DSN 001-D	**Monitoring Location:** 1 (External outfall)
Wastewater Description: Dry weather discharges of cooling tower blowdown, steam condensate from boiler operations, fire suppression testing wastewaters, and residual of the wet weather discharge	
Monitoring Location Description: Sedimentation basin outlet (Dry weather discharge sampling only)	**Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")
Allocated Zone of Influence (ZOI): 104,166 gph **Allocated Thermal Zone of Influence:** 21,158 gph	**In-stream Waste Concentration (IWC):** 1.0%

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL [2] (µg/l)
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1,3]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	

TABLE FOOTNOTES AND REMARKS

Footnotes:

[1] 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 the same as the 'Sample Frequency'.

[2] Minimum Level refers to Section 6(C) of this permit.

[3] Dry weather discharge sampling shall occur after 48 hours of dry weather and no less than 48 hours after the last tank farm pump out to ensure negligible amounts of stormwater within the basin. Aquatic toxicity testing as specified in Table A above shall be performed during dry weather discharges only. Sampling shall be conducted according to the requirements above unless climatic conditions preclude, in which case the sample shall be taken at a time as closely approximating to the conditions as possible.

[4] Acute toxicity testing shall be conducted in accordance with Section 7(A) of this permit. The LC_{50} results (in %) for the acute toxicity testing shall be reported on the DMR.

[5] Chronic toxicity testing shall be conducted in accordance with Section 7(B) of this permit. The C-NOEC (Chronic-No Observed Effect Concentration) results (in %) for the conditions noted in this table shall be reported on the DMR. In addition to the reporting requirement under Section 8(B) of this permit, the aquatic toxicity monitoring report (ATMR) shall be completed for each chronic toxicity event and the completed ATMR be submitted as an attachment to the DMR.

[6] Sampling shall be in July, August or September.

[7] The NetDMR code for hydrocarbons, total gas chromatography is used to represent Extractable Total Petroleum Hydrocarbons for ICIS ("Integrated Compliance Information System") reporting via NetDMR. The Permittee shall monitor and report Extractable Total Petroleum Hydrocarbons in accordance with Section 6(H).

[8] For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day of dry weather and wet weather discharges and shall report the Average Daily Flow and the Maximum Daily Flow for dry weather discharges for each sampling quarter (Q).

[9] The Permittee shall report the lowest pH value from all the monitoring data for the reporting quarter (Q1: January - March, Q2: April - June, Q3: July - September, and Q4: October – December).

[10] The Permittee shall report the highest pH value of all the monitoring data for the reporting quarter (Q1: January - March, Q2: April - June, Q3: July - September, and Q4: October – December).

[11] The Permittee shall analyze for analytes included in Table 1 of EPA Method 624.1 and shall report the summed total toxic organics present above testing method's minimum level. In addition, Permittee submit as an attachment to the NetDMR, the laboratory report of all the analytes.

Remarks:

1. Abbreviations used for units are as follows: gpd means gallons per day; kg/day means kilograms per day; mg/L means milligrams per liter; SU means Standard Units; % means percentage. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5(D) 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. "#/100 ml" as a Monitoring Table abbreviation means "number per 100 milliliters".
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. Total Nitrogen means the sum of the concentrations of: Total Kjeldahl Nitrogen (Ammonia Nitrogen + Organic Nitrogen) + Nitrate Nitrogen + Nitrite Nitrogen.

TABLE B – DRY WEATHER ACUTE TOXICITY MONITORING

Discharge Serial Number: DSN 01D-AT	**Monitoring Location Code:** T – Acute toxicity effluent results and chemical analyses U – Salinity adjusted acute toxicity effluent results and chemical analyses
Wastewater Description: Dry weather discharges of cooling tower blowdown, steam condensate from boiler operations, fire suppression testing wastewaters, and residual of the wet weather discharge	
Monitoring Location Description: Sedimentation basin outlet (Dry weather discharge sampling only)	**Outfall Location:** Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")
Discharge is to: Norwalk Harbor **In-stream Waste Concentration (IWC):** 1.0%	**Allocated Zone of Influence (ZOI):** 104,166 gph **Allocated Thermal Zone of Influence:** 21,158 gph

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINI-MUM LEVEL [4] (µg/L)	MONIT-ORING LOCA-TION
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1, 2]	Sample Type or Measurement to be reported [3]	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported		
Whole Effluent Toxicity (WET)											
LC_{50} Static 48 Hour Acute toxicity, *Mysidopsis bahia* [7]	TAA3E	%	NA	$LC_{50} \geq 20\%$	Semiannually	Daily Composite	$LC_{50} \geq 6.67\%$	NR	Grab		T, U
LC_{50} Static 48 Hour Acute toxicity, *Menidia beryllina* [7]	TAA6B	%	NA	$LC_{50} \geq 20\%$	Semiannually	Daily Composite	$LC_{50} \geq 6.67\%$	NR	Grab		T, U
Chemical Analyses Required with Acute Whole Effluent Toxicity Monitoring – See Section 7(A)(6) for Acute Testing [6]											
Date of Acute WET Chemistry Sample Collection[7]	51883	YYYYMMDD	NA	---	Semiannually	Calculated	NA	NR	NA		T, U
Alkalinity	00410	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Aluminum, Dissolved	01106	µg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	10.0	T, U
Aluminum, Total	01105	µg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	10.0	T, U
Chlorine, Total Residual	50060	µg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	20.0	T, U
Copper, Dissolved	01040	µg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	10.0	T, U
Copper, Total	01042	µg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	10.0	T, U
Dissolved Oxygen	00300	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Extractable Total Petroleum Hydrocarbon	46116 [8]	mg/l	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Hardness, Total	00900	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Iron, Total	01045	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	100.0	T, U
Lead, total	01051	µg/L	---	---	Semiannually	Daily Composite	NA	NR	NA	5.0	T, U
Nitrogen, Ammonia (total as N)	00610	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U

Nitrogen, Kjeldahl (total as N)	00625	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Nitrogen, Nitrate (total as N)	00620	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Nitrogen, Nitrite (total as N)	00615	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Nitrogen, Total (as N)[9]	00600	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
pH	00400	SU	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Phosphorus	00665	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	100.0	T, U
Salinity	00480	ppT	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Specific Conductance	51409	uMhos	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Temperature	00011	Deg. F.	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Total Suspended Solids	00530	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA		T, U
Zinc, Dissolved	01090	µg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	10.0	T, U
Zinc, Total	01092	µg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	10.0	T, U

TABLE FOOTNOTES AND REMARKS

Footnotes:

[1] 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.

[2] If more than one toxicity sample is collected during the reporting period, report subsequent WET and chemistry results on the following month's DMR and in accordance with Section 9(B) of this permit.

[3] "Composite" samples shall be collected for acute toxicity tests consistent with the methodology outlined in Footnote 4 of Table A of this permit.

[4] "Minimum Level" refers to Section 6(C) of this permit.

[5] Acute toxicity testing shall be conducted in accordance with Section 7(A) of this permit. The LC_{50} or NOAEL results (in %) for the acute toxicity testing shall be reported on the DMR. The Aquatic Toxicity Monitoring Report ("ATMR") included in Attachment A of this permit shall be completed for each toxicity testing event and submitted consistent with Section 8(B) of this permit.

[6] 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. Chemical analyses conducted on salinity adjusted effluent samples used in acute toxicity tests shall be reported under Monitoring Location U. Results shall also be included on the ATMR and submitted consistent with Section 8(B) of this permit.

[7] 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).

[8] The NetDMR code for hydrocarbons, total gas chromatography is used to represent Extractable Total Petroleum Hydrocarbons for ICIS ("Integrated Compliance Information System") reporting via NetDMR. The Permittee shall monitor and report Extractable Total Petroleum Hydrocarbons in accordance with Section 6(H).

[9] Total Nitrogen means the sum of the concentrations of: Total Kjeldahl Nitrogen + Nitrate Nitrogen + Nitrite Nitrogen. The concentration-based value shall be multiplied by the Total Daily Flow and converted to lbs/day.

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(D) 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.

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(E).

TABLE C – DRY WEATHER CHRONIC TOXICITY MONITORING

Discharge Serial Number: DSN 01D-CT

Monitoring Location Codes:
Y – Chronic toxicity effluent results
O – Day 1 chronic toxicity chemical analyses
P – Day 3 chronic toxicity chemical analyses
Q – Day 5 chronic toxicity chemical analyses
R – Day 1 upstream monitoring
S – Day 3 upstream monitoring
T – Day 5 upstream monitoring
U – Day 1 salinity adjusted effluent chemical analyses
V – Day 3 salinity adjusted effluent chemical analyses
W – Day 5 salinity adjusted effluent chemical analyses

Wastewater Description: Dry weather discharges of cooling tower blowdown, steam condensate from boiler operations, fire suppression testing wastewaters, and residual of the wet weather discharge

Monitoring Location Description: Sedimentation basin outlet (Dry weather discharge sampling only)

Outfall Location: Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

Discharge is to: Norwalk Harbor

In-stream Waste Concentration (IWC): 1.0%

Allocated Zone of Influence (ZOI): 104,166 gph
Allocated Thermal Zone of Influence: 21,158 gph

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL [5] (µg/L)	MONITORING LOCATION
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1, 2, 3]	Sample Type or Measurement to be Reported [4]	Instantaneous Limit or Required Range	Sample/ Reporting Frequency	Sample Type or Measurement to be Reported		
Whole Effluent Toxicity (WET)											
Chronic Aquatic Toxicity (Survival)[6] *Mysidopsis bahia*, C-NOEC	TOP3E	%	NA	---	Annually	Daily Composite	NA	NR	NA		Y
Chronic Aquatic Toxicity (Reproduction)[6] *Mysidopsis bahia*, C-NOEC	TPP3E	%	NA	---	Annually	Daily Composite	NA	NR	NA		Y
Chronic Aquatic Toxicity (Survival)[6] *Cyprinodon variegatus*, C-NOEC	TOP6A	%	NA	---	Annually	Daily Composite	NA	NR	NA		Y
Chronic Aquatic Toxicity (Growth)[6] *Cyprinodon variegatus*, C-NOEC	TPP6A	%	NA	---	Annually	Daily Composite	NA	NR	NA		Y
Chemical Analyses Required with Chronic Whole Effluent Toxicity Monitoring – See Section 7(B)(7) for Chronic Testing [7]											
Date of Chronic WET Chemistry Sample Collection[8]	51883	YYYYMMDD	NA	---	Annually	Calculated	NA	NR	NA		O, P, Q; R, S, T: U, V, W

Alkalinity	00410	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Aluminum, Dissolved	01106	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	10.0	O, P, Q; R, S, T: U, V, W
Aluminum, Total	01105	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	10.0	O, P, Q; R, S, T: U, V, W
Chlorine, Total Residual	50060	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	20.0	O, P, Q; R, S, T: U, V, W
Copper, Dissolved	01040	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	3.0	O, P, Q; R, S, T: U, V, W
Copper, Total	01042	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	3.0	O, P, Q; R, S, T: U, V, W
Dissolved Oxygen	00300	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Hardness, Total	00900	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Iron, Total	01045	mg/L	NA	---	Semiannually	Daily Composite	NA	NR	NA	100.0	O, P, Q; R, S, T: U, V, W
Lead, Dissolved	01049	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	1.0	O, P, Q; R, S, T: U, V, W
Lead, Total	01051	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	1.0	O, P, Q; R, S, T: U, V, W
Nitrogen, Ammonia (total as N)	00610	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Nitrogen, Kjeldahl (total as N)	00625	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Nitrogen, Nitrate (total as N)	00620	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Nitrogen, Nitrite (total as N)	00615	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W

Nitrogen, Total (as N)[9]	00600	mg/L	NA	---	Annually	Calculation	NA	NR	NA		O, P, Q; R, S, T: U, V, W
pH	00400	SU	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Phosphorus, Total	00665	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA	100.0	O, P, Q; R, S, T: U, V, W
Specific Conductance	51409	uMhos	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Temperature	00011	Deg. F.	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Total Suspended Solids	00530	mg/L	NA	---	Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T: U, V, W
Zinc, Dissolved	01090	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	10.0	O, P, Q; R, S, T: U, V, W
Zinc, Total	01092	µg/L	NA	---	Annually	Daily Composite	NA	NR	NA	10.0	O, P, Q; R, S, T: U, V, W

TABLE FOOTNOTES AND REMARKS

Footnotes:

[1] 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.

[2] If more than one toxicity sample is collected during the reporting period, report subsequent WET and chemistry results on the following month's DMR and in accordance with Section 9(B) of this permit.

[3] Sampling shall be in July, August or September.

[4] Daily composite samples shall be collected for chronic toxicity tests consistent with the methodology outlined in Section 7(B) of this permit.

[5] "Minimum Level" refers to Section 6(C) of this permit.

[6] Chronic toxicity testing shall be conducted in accordance with Section 7(B) of this permit. The C-NOEC (Chronic-No Observed Effect Concentration) results (in %) for the conditions noted in this table shall be reported on the DMR. The ATMR of this permit shall be completed for each chronic toxicity testing event and submitted consistent with Section 8(B) of this permit.

[7] Chemical analyses shall be conducted on all samples used in the chronic toxicity tests. These analyses shall be conducted on an undiluted aliquot of each effluent sample and each sample of upstream receiving water used in the chronic toxicity test. Results for effluent sampling from day 1, day 3, and day 5 of the chronic toxicity test shall be reported under Monitoring Location O, P, and Q, respectively. Receiving water (upstream) results from day 1, day 3, and day 5 of sampling shall be reported under reported under Monitoring Location R, S, and T, respectively. Results for salinity adjusted effluent sampling from day 1, day 3, and day 5 of the chronic toxicity test shall be reported under Monitoring Location U, V, and W, respectively.

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

[9] Total Nitrogen means the sum of the concentrations of: Total Kjeldahl Nitrogen + Nitrate Nitrogen + Nitrite Nitrogen. The concentration-based value shall be multiplied by the Total Daily Flow and converted to lbs/day.

Remarks:

2. 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.
3. 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.
4. 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(E).

TABLE D – WET WEATHER DISCHARGES (See Section 8 for Additional Requirements)	
Discharge Serial Number: DSN 001-W	**Monitoring Location:** 1 (External outfall)
Wastewater Description: Wet weather discharge of stormwater mixed with cooling tower blowdown, steam condensate from boiler operations, and fire suppression testing wastewaters	
Monitoring Location Description: Sedimentation basin outlet (Wet weather discharge sampling only)	**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 [3] (µg/l)
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported [2]	Instantaneous Limit or Required Range	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	
Aluminum, total	01105	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	10.0
Ammonia as N, total	00610	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Biochemical Oxygen Demand (5-day)	00310	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Chemical Oxygen Demand	00335	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Chlorine, total residual	50060	mg/l	NA	---	Quarterly	Grab Sample Average	NA	NR	NA	20.0
Copper, total	01042	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Enterococci	61211	#/100 ml	NA	---	NR	NA	NA	NR	NA	
Extractable Total Petroleum Hydrocarbon	46116 [5]	mg/l	NA	NA	NR	NA	---	Semiannually	Grab	
Fecal coliform	74055	#/100 ml	NA	---	NR	NA	NA	NR	NA	
Flow Rate (Average Daily)[6] (wet weather)	00056	Gpd	NA	---	Continuous/ Quarterly	Daily Flow	NA	NR	NA	
Flow, Maximum during 24 hr period[6] (wet weather)	50047	Gpd	NA	---	Continuous/ Quarterly	Daily Flow	NA	NR	NA	
Formaldehyde	71880	mg/l	NA	NA	NR	NA	---	Semiannually	Grab	50.0
Iron, total	01045	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Kjeldahl Nitrogen, Total (as N)	00625	mg/L	NA	---	Quarterly	Composite	NA	NR	NA	
Lead, total	01051	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	5.0
Nitrate (as N)	00620	mg/l	---	---	Quarterly	Composite	NA	NR	NA	
Nitrite (as N)	00615	mg/l	---	---	Quarterly	Composite	NA	NR	NA	
Nitrogen, Total [See Remark 7]	00600	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Oil and grease	00556	mg/l	NA	---	Quarterly	Grab Sample Average	NA	NR	NA	
pH, Minimum[7]	61942	S.U.	NA	---	NR	NA	---	Continuous/ Quarterly	Continuous	
pH, Maximum[8]	61941	S.U.	NA	---	NR	NA	---	Continuous/ Quarterly	Continuous	
Phosphorus, Total	00665	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Surfactants (methylene blue active substances (MBAS))	38260	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Total Dissolved Solids	70295	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Total Organic Carbon	00680	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	
Total Suspended Solids	00530	mg/l	NA	---	Quarterly	Composite	NA	NR	Grab	

TABLE D – WET WEATHER DISCHARGES (See Section 8 for Additional Requirements)	
Discharge Serial Number: DSN 001-W	**Monitoring Location:** 1 (External outfall)
Wastewater Description: Wet weather discharge of stormwater mixed with cooling tower blowdown, steam condensate from boiler operations, and fire suppression testing wastewaters	
Monitoring Location Description: Sedimentation basin outlet (Wet weather discharge sampling only)	**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 [3] (µg/l)
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported [2]	Instantaneous Limit or Required Range	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	
Total Toxic Organics [9]	78141	mg/l	NA	NA	NR	NA	---	Semiannually	Grab	
Zinc, total	01092	mg/l	NA	---	Quarterly	Composite	NA	NR	NA	10.0

TABLE FOOTNOTES AND REMARKS

Footnotes:

[1] 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 the same as the 'Sample Frequency'.

[2] Composite sample shall consist of two aliquot samples collected at least 15 minutes apart and combined into one sample.

[3] Minimum Level refers to Section 6(C) of this permit.

[4] Acute toxicity testing shall be conducted in accordance with Section 7(A) of this permit. The LC_{50} results (in %) for the acute toxicity testing shall be reported on the DMR.

[5] The NetDMR code for hydrocarbons, total gas chromatography is used to represent Extractable Total Petroleum Hydrocarbons for ICIS ("Integrated Compliance Information System") reporting via NetDMR. The Permittee shall monitor and report Extractable Total Petroleum Hydrocarbons in accordance with Section 6(H).

[6] For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day of dry weather and wet weather discharge and shall report the Average Daily Flow and the Maximum Daily Flow for wet weather discharges for each sampling quarter (Q).

[7] The Permittee shall report the lowest pH value from all the monitoring data for the reporting quarter (Q1: January – March, Q2: April – June, Q3: July – September and Q4: October – December).

[8] The Permittee shall report the highest pH value of all the monitoring data for the reporting quarter (Q1: January – March, Q2: April – June, Q3: July – September and Q4: October – December).

[9] The Permittee shall analyze for analytes included in Table 1 of EPA Method 624.1 and shall report the summed total toxic organics present above testing method's minimum level. In addition, the Permittee submit as an attachment to the NetDMR, the laboratory report of all the analytes.

Remarks:

1. Abbreviations used for units are as follows: gpd means gallons per day; kg/day means kilograms per day; mg/L means milligrams per liter; SU means Standard Units; % means percentage. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5(D) of this permit); RDS means Range During Sampling.
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. "#/100 ml" as a Monitoring Table abbreviation means "number per 100 milliliters".
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. Total Nitrogen means the sum of the concentrations of: Total Kjeldahl Nitrogen (Ammonia Nitrogen + Organic Nitrogen) + Nitrate Nitrogen + Nitrite Nitrogen.
6. Composite sample shall comprise of a minimum of three aliquots collected and combined into one sample.
7. Uncontaminated rainfall pH shall be measured for the same rain event during which the runoff sample is taken and added as an attachment to the DMR

TABLE E – WET WEATHER ACUTE TOXICITY MONITORING (See Section 8 for Additional Requirements)

Discharge Serial Number: DSN 01W-AT

Monitoring Location:
T – Acute toxicity effluent results and chemical analyses
U – Salinity adjusted acute toxicity effluent results and chemical analyses

Wastewater Description: Wet weather discharge of stormwater mixed with cooling tower blowdown, steam condensate from boiler operations, and fire suppression testing wastewaters

Monitoring Location Description: Sedimentation basin outlet (Wet weather discharge sampling only)

Outfall Location: Latitude (41° 37' 38.38") and Longitude (73° 04' 10.53")

Discharge is to: Norwalk Harbor

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL[4] (µg/L)	MONITORING LOCATION
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1, 2]	Sample Type or Measurement to be Reported [3]	Instantaneous Limit or Required Range	Sample/ Reporting Frequency	Sample Type or Measurement to be Reported		
Whole Effluent Toxicity (WET)											
LC_{50} Static 48 Hour Acute toxicity, *Mysidopsis bahia* [7]	TAA3E	%	NA	---	Semiannually	Composite	NA	NR	NA		T, U
LC_{50} Static 48 Hour Acute toxicity, *Menidia beryllina* [7]	TAA6B	%	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Chemical Analyses Required with Acute Whole Effluent Toxicity Monitoring – See Section 7(A)(6) for Acute Testing [6]											
Date of Acute WET Chemistry Sample Collection[7]	51883	YYYYMMDD	NA	---	Semiannually	Calculated	NA	NR	NA		T, U
Alkalinity	00410	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Aluminum, Dissolved	01106	mg/L	NA	---	Semiannually	Composite	NA	NR	NA	10.0	T, U
Aluminum, Total	01105	mg/L	NA	---	Semiannually	Composite	NA	NR	NA	10.0	T, U
Chlorine, Total Residual	50060	mg/L	NA	---	Semiannually	Composite	NA	NR	NA	20.0	T, U
Copper, Dissolved	01040	mg/L	NA	---	Semiannually	Composite	NA	NR	NA	10.0	T, U
Copper, Total	01042	µg/L	NA	---	Semiannually	Composite	NA	NR	NA	10.0	T, U
Dissolved Oxygen	00300	µg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Extractable Total Petroleum Hydrocarbon	46116 [8]	mg/l	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Hardness, Total	00900	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Iron, Total	01045	mg/L	NA	---	Semiannually	Composite	NA	NR	NA	100.0	T, U
Lead, Total	01051	µg/L	NA	---	Semiannually	Composite	NA	NR	NA	1.0	T, U
Nitrogen, Ammonia (total as N)	00610	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Nitrogen, Kjeldahl (total as N)	00625	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U

Nitrogen, Nitrate (total as N)	00620	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Nitrogen, Nitrite (total as N)	00615	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Nitrogen, Total (as N)[9]	00600	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
pH	00400	SU	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Phosphorus, Total	00665	mg/L	NA	---	Semiannually	Composite	NA	NR	NA	100.0	T, U
Salinity	00480	ppT	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Specific Conductance	51409	uMhos	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Temperature	00011	Deg. F.	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Total Suspended Solids	00530	mg/L	NA	---	Semiannually	Composite	NA	NR	NA		T, U
Zinc, Dissolved	01090	µg/L	NA	---	Semiannually	Composite	NA	NR	NA	10.0	T, U
Zinc, Total	01092	µg/L	NA	---	Semiannually	Composite	NA	NR	NA	10.0	T, U

TABLE FOOTNOTES AND REMARKS

Footnotes:

[1] 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.

[2] If more than one toxicity sample is collected during a single month, report subsequent WET and chemistry results on the following month's DMR and in accordance with Section 9(B) of this permit.

[3] "Composite" samples shall be collected for acute toxicity tests consistent with the methodology outlined in Footnote 4 of Table A of this permit.

[4] "Minimum Level" refers to Section 6(C) of this permit.

[5] Acute toxicity testing shall be conducted in accordance with Section 7(A) of this permit. The LC_{50} or NOAEL results (in %) for the acute toxicity testing shall be reported on the DMR. The Aquatic Toxicity Monitoring Report ("ATMR") included in Attachment A of this permit shall be completed for each toxicity testing event and submitted consistent with Section 8(B) of this permit.

[6] 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. Chemical analyses conducted on salinity adjusted effluent samples used in acute toxicity tests shall be reported under Monitoring Location U. Results shall also be included on the ATMR and submitted consistent with Section 8(B) of this permit.

[7] 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).

[8] The NetDMR code for hydrocarbons, total gas chromatography is used to represent Extractable Total Petroleum Hydrocarbons for ICIS ("Integrated Compliance Information System") reporting via NetDMR. The Permittee shall monitor and report Extractable Total Petroleum Hydrocarbons in accordance with Section 6(H).

[9] Total Nitrogen means the sum of the concentrations of: Total Kjeldahl Nitrogen + Nitrate Nitrogen + Nitrite Nitrogen. The concentration-based value shall be multiplied by the Total Daily Flow and converted to lbs/day.

Remarks:

2. 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(D) of this permit); RDS means Range During Sampling; RDM means Range During Month.
3. 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(E).

TABLE F – INDUSTRIAL STORMWATER (See Section 8 for Additional Requirements)

Discharge Serial Number: DSN 01W-1 | **Monitoring Location:** IM (External outfall)

Wastewater Description: Stormwater prior to mixing with cooling tower blowdown, steam condensate from boiler operations, and fire suppression testing wastewaters

Monitoring Location Description: Stormwater collection system manhole upstream of inlet to the lower basin

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			MINIMUM LEVEL [4] (µg/l)
			Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range [2]	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported [3]	
Aluminum, total	01105	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	10.0
Chemical Oxygen Demand	00335	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
Copper, total	01042	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
Iron, total	01045	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
Lead, total	01051	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	5.0
Nitrate (as N)	00620	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
Oil and Grease, total	00556	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
pH	00400	S.U.	NA	NA	NR	NA	---	Quarterly	Grab	
Phosphorus, total	00665	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
Total Suspended Solids	00530	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
Zinc, total	01092	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	10.0

TABLE FOOTNOTES AND REMARKS

Footnotes:

[1] 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 the same as the 'Sample Frequency'.

[2] This sampling shall be used to determine compliance with stormwater benchmarks in accordance with Section 8(E)(1)(b).

[3] Stormwater monitoring procedures shall occur in accordance with Section 8(E).

[4] Minimum Level refers to Section 6(C) of this permit.

Remarks:

1. Abbreviations used for units are as follows: mg/L means milligrams per liter; SU means Standard Units. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable (unless sampling is conducted relative to Section 5(D) 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. Uncontaminated rainfall pH shall be measured for the same rain event during which the runoff sample is taken and added as an attachment to the DMR.

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

(A) 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. Monitoring parameters which do not have approved methods of analysis defined in 40 CFR 136 shall be collected, handled, and analyzed in accordance with the methods in Section 6(B), below.

(B) The latest, most up-to-date, of the following test method(s) as well as the following container, preservation, and hold time requirements, shall be used to analyze the parameters identified below:

PARAMETER	METHOD OF ANALYSIS	CONTAINER/PRESERVATION /MAXIMUM HOLDING TIME
Formaldehyde	EPA 1667	Per Method 1667
Extractable Total Petroleum Hydrocarbons	Analysis of Extractable Total Petroleum Hydrocarbons (ETPH Method) Using Methylene Chloride Gas Chromatograph/Flame Ionization Detection	Per specified method

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

(D) 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 - F. 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 - F. 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.

(E) 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.

(F) 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.

(G) 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.

(H) 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

(A) **ACUTE TESTING REQUIREMENTS.** The Permittee shall conduct acute aquatic toxicity testing for DSN 01D-AT and DSN 01W-AT as follows:

(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.

(2) **SAMPLE COLLECTION AND HANDLING:**

(a) 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.

(b) 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.

(c) Tests for acute aquatic toxicity shall be initiated within 24 hours of sample collection.

(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:

(a) For 48-hours utilizing neonatal *Mysidopsis bahia* (1-5 days old with no more than 24-hours range in age).

(b) For 48-hours utilizing larval *Cyprinodon variegatus* (1-14 days old with no more than 24-hours range in age).

(4) **ACUTE ENDPOINT:** Survival at 48-hours measured by LC_{50}.

(5) **TEST CONDITIONS:**

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

(b) Definitive (multi-concentration) testing, with LC50 as the endpoint, shall be conducted to determine compliance with limits on acute aquatic toxicity and monitoring conditions and shall incorporate, at a minimum, the following effluent concentrations: 100%, 50%, 25%, 12.5%, 6.25%.

(c) Aquatic toxicity tests with saltwater organisms shall be conducted at a salinity of 20 parts per thousand (±2 parts per thousand).

(i) Synthetic seawater for use as dilution water or controls shall be prepared with deionized water and artificial sea salts as described in EPA/821-R-02-012.

(ii) If the salinity of the source water is more than 5 parts per thousand higher, or lower than the culture water used for rearing the organisms, a second set of controls matching the salinity of the culture water shall be added to the test series. Test validity shall be determined using the controls adjusted to match the source water salinity.

(iii) Salinity adjustment that may be required in tests with saltwater organisms shall utilize the minimum amount of synthetic hypersaline brine (not to exceed 100 parts per thousand) or dilute (2 parts per thousand) synthetic seawater necessary to achieve the required salinity.

(iv) The actual effluent concentrations in definitive tests with saltwater organisms shall be used in calculating test results.

(d) All effluent concentrations and the control(s) used in the test shall have the same salinity. If the effluent requires salinity adjustment to a standard salinity, this shall be accomplished by adding a minimum amount of commercial sea salts as described in EPA-821-R-02-012.

(e) *Mysidopsis bahia* shall be fed during the tests.

(f) Sodium lauryl sulfate or sodium dodecyl sulfate shall be used as the reference toxicant.

(g) 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.

(h) Specific conductance, pH, salinity 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.

(6) **CHEMICAL ANALYSIS:** All samples of the discharge used in the acute toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 6(A). Dry weather discharges shall be analyzed for the parameters identified on Section 5 Table B of this permit. Wet weather discharges shall be analyzed for the parameters identified on Section 5 Table E of this permit.

(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 10(E).

(8) **TEST COMPLIANCE:** Compliance with limits on Acute Toxicity shall be determined as follows:

(a) When the results of a valid definitive acute aquatic toxicity test indicates that the LC50 value for the test is greater than the acute toxicity limit.

(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 in which samples are collected in accordance with Section 9(B) 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.

(B) **CHRONIC TESTING REQUIREMENTS**. The Permittee shall conduct chronic toxicity testing for DSN 01D-CT as follows:

(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 Water to Marine and Estuarine Organisms*, EPA-821-R-02-014, or the most current version, with the following exceptions or clarifications noted below.

(2) **SAMPLE COLLECTION AND HANDLING:**

(a) 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.

(b) 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.

(c) Tests for chronic aquatic toxicity shall be initiated within 36 hours of sample collection.

(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:

(a) For 48-hours utilizing neonatal *Mysidopsis bahia* (1-5 days old with no more than 24 hours range in age).

(b) For 48-hours utilizing larval *Cyprinodon variegatus* (1-14 days old with no more than 24 hours range in age).

(4) **CHRONIC ENDPOINTS:**

(a) *Mysidopsis bahia:* Survival and Reproduction

(b) *Cyprinodon variegatus:* Survival and Growth

(5) **DILUTION WATER:** Norwalk Harbor water shall be collected upstream of the area influenced by the discharge 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.

(6) **TEST CONDITIONS:**

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

(b) Daily composite samples of the discharge and grab samples of the Norwalk Harbor 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.

(c) Test concentrations shall be comprised of a minimum of five dilutions (100%, 50%, 25%, 12.5%, 6.25%, and 0% effluent), laboratory control water, and site dilution water.

(d) Dissolved oxygen, pH, and temperature shall be measured in each sample of effluent and the Norwalk Harbor water sample prior to and immediately following renewal of the test solutions.

(e) Synthetic seawater prepared with deionized water and artificial salts adjusted to a salinity of 20 parts per thousand (±2 parts per thousand) as described in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014) shall be used as laboratory control water.

(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, each sample of upstream of Norwalk Harbor used in the test, and each salinity adjusted effluent sample, if salinity adjustment is required. The chemical analysis shall be analyzed and results reported in accordance with the provisions listed in Section 5 Table C and Section 6(A) of the permit.

(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.

(9) **REPORTING:** A report detailing the results of the chronic toxicity monitoring shall be submitted to the Commissioner by the last day of the month following the month in which samples are collected in accordance with Section 9(B) of this permit. The report shall include the items identified in Section 9(B) of this permit. Endpoints to be reported are: 48-hour LC_{50} (survival), 7-day LC_{50} (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 IC_{25} (growth and reproduction).

SECTION 8: STORMWATER AND WET WEATHER DISCHARGE REQUIREMENTS

The Permittee shall comply with the following terms and conditions.

(A) ***Conditions Applicable to the wet weather discharge – DSN 001-W (Table D), DSN 01W-AT (Table E), and DSN 01W-1 (Table F):***

(1) There shall be no distinctly visible floating scum, oil or other matter contained in the wet weather discharge. Excluded from this are naturally occurring substances, such as, leaves and twigs provided no person has placed such substances in or near the discharge.

(2) The wet discharge shall not result in pollution due to acute or chronic toxicity to aquatic and marine life, impair the biological integrity of aquatic or marine ecosystems, or result in an unacceptable risk to human health.

(3) The wet weather discharge shall not cause or contribute to an exceedance of the applicable Water Quality Standards in the receiving water.

(B) ***Control Measures***

Control Measures are required Best Management Practices (BMP) that the Permittee must implement to minimize the discharge of pollutants from the permitted facility. The term "minimize" means reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable considering best industry practice.

(1) Good Housekeeping

The Permittee must maintain a clean, orderly facility (e.g., sweeping at regular intervals, appropriate storage practices, proper garbage and waste management, dust control measures, etc.) in all areas that are exposed to rainfall and are potential sources of pollutants.

(2) Vehicle or Equipment Washing

The Permittee must provide, at a minimum, that no washing or rinsing of equipment, buildings or vehicles shall be allowed at the site which would allow wash or rinse waters to enter any storm drainage system or surface waters of the State without a permit. Such discharges to groundwater are not authorized by this permit.

(3) Floor Drains

The Permittee must provide that all floor drains have been sealed, authorized by a local authority to discharge to sanitary sewer or allowed by DEEP in accordance with the "Non-Stormwater Discharges" section (Section 8(B)(11)) of this permit.

(4) Roof Areas

The Permittee must identify roof areas that may be subject to drippage, dust or particulates from exhausts or vents or other sources of pollution. The Permittee must inspect such areas to determine if any potential sources of stormwater pollution are present. If so, the Permittee must minimize such sources or potential sources of pollution.

(5) Minimize Exposure

The Permittee must minimize exposure to stormwater of materials identified in the "Inventory of Exposed Materials" section (Section 8(C)(2)(d)(ii)) of this permit.

(6) Sediment and Erosion Control

The Permittee must identify areas that have a potential for soil erosion due to topography, activities, or other factors, and shall implement measures to limit erosion and stabilize such areas. All construction activities on site shall be conducted in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control published on September 30, 2023 (Guidelines) and the "Future Construction" section (Section 8(C)(2)(h)) of this permit.

(7) Management of Runoff

The Permittee shall investigate the need for stormwater management or treatment practices that shall be used to divert, infiltrate, reuse, or treat stormwater runoff in a manner that minimizes pollutants in stormwater discharges from the site. Any evaluation, construction or modification of the design of a stormwater drainage system requires certification by a professional engineer licensed to practice in the State of Connecticut. The Permittee shall implement and maintain stormwater management or treatment measures determined to be reasonable and appropriate to minimize the discharge of pollutants from the site.

In implementing infiltration practices, care must be taken to avoid ground water contamination. Any stormwater infiltration measures implemented by the Permittee and located within an aquifer protection area as mapped under Section 22a-354b of the CGS shall be conducted pursuant to Sections 8(c) and 9(b) of the Aquifer Protection Regulations (Section 22a-354i(1)-(10) of the RCSA). The Permittee must assure that stormwater run-off generated from the regulated activity is managed in a manner so as to prevent pollution of groundwater, and shall comply with all the requirements of this permit.

The Permittee shall consider the potential of various sources at the facility to contribute pollutants to stormwater discharges associated with industrial activity when determining reasonable and appropriate measures. Where feasible, the Permittee shall divert uncontaminated run-on to avoid areas that may contribute pollutants. Other appropriate stormwater management or treatment measures may include but are not limited to: vegetative swales or buffer strips, reuse of collected stormwater (such as for process water, cooling water or as an irrigation source), treatment technologies (e.g. swirl concentrators, sand filters, etc.), snow management activities, bioretention cells, green roofs, pervious pavement and wet detention/retention basins. The Permittee shall ensure that such measures are properly designed, implemented and maintained in accordance with the 2024 Connecticut Stormwater Quality Manual.

(8) Preventive Maintenance

The Permittee must implement a preventive maintenance program, which shall include but not be limited to: the inspection and maintenance of stormwater management devices (e.g. cleaning stormwater treatment devices, catch basins); the visual inspection and/or testing of on-site equipment and systems to identify conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters; and the appropriate maintenance of such equipment and systems. These areas shall be included in the Routine Inspections conducted under Section 8(D)(2) of this permit. If the Permittee maintains an existing preventive maintenance program that addresses the requirements of this control measure, they may use that program to meet this requirement. The existence of such a program and the location of its maintenance records shall be referenced in the Stormwater Pollution Prevention Plan ("Plan").

(9) Spill Prevention and Response Procedures

The Permittee must minimize the potential for leaks and spills. This shall include clearly identifying areas where potential spills can occur and their accompanying drainage points. The Permittee must plainly label containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage in areas that could contribute pollutants to stormwater runoff. The Permittee shall identify procedures for containing, reporting and cleaning up spills. These procedures must be provided to the appropriate personnel through Employee Training (subsection 10, below) along with the necessary equipment to implement a cleanup.

(a) Containment

To prevent unauthorized discharges of liquid chemicals or wastewater from commingling with or polluting a facility’s stormwater discharges, or otherwise causing pollution to the waters of the state, the Permittee shall comply with the following requirements, as applicable:

(i) Storage or Storage Areas

For the purposes of Section 8(B)(9)(a) of this permit only, storage area means an exterior area, which is or has the potential to be exposed to stormwater, that contains one or more tanks or containers utilized for the storage of liquid chemicals or for the collection, storage or treatment of wastewater. Any stationary above-ground tank, container or storage area used: (1) for the storage of liquid chemicals as identified in the "Spills and Leaks" section (Section 8(C)(2)(d)(iv)) of this permit; or (2) for the collection, storage or treatment of wastewater shall, at a minimum comply with one of the following types of secondary containment requirements:

(1) A double-walled above-ground tank or container; or

(2) For any storage area, tank or container installed prior to the date of issuance of this permit, an impermeable secondary containment area which will hold at least 100% of the volume of the largest tank or container or 10% of the total volume of all tanks and containers in the area, whichever is larger, without overflow from such secondary containment area: or

(3) For any storage area, tank or container installed after the date of issuance of this permit, an impermeable secondary containment area which will hold at least 110% of the volume of the largest tank or container or 10% of the total volume of all tanks and containers in the area, whichever is larger, without overflow from such secondary containment area.

(ii) Mobile or Portable Storage

Any mobile or portable above-ground tank or container used for the collection or storage of wastewater shall comply with the secondary containment requirements of Section 8(B)(9)(a)(i) above, unless the following minimum requirements are met:

(1) Such mobile or portable tank or container and related appurtenances (i.e., piping, fittings, valves, gauges, alarms, switches, etc.) are designed, operated and maintained in a manner to prevent releases of wastewater resulting from factors including, but not limited to, physical or chemical damage, tampering or vandalism, freezing and thawing; and

(2) In addition to the requirements of Section 8(B)(9)(a)(ii)(1) above, for any mobile or portable tank or container and related appurtenances that are affixed to a trailer, such trailer shall be a registered motor vehicle designed, operated and maintained to be capable of on-road transport of wastewater at all times.

(iii) Additional Requirements

If an impermeable secondary containment area is required by 8(B)(9)(a)(i) or (ii) above, such containment area shall be roofed in a manner which minimizes stormwater entry to the containment area, except for a containment area which stores tanks or containers of 100-gallon capacity or more, in which case a roof is not required.

Stormwater that may accumulate in a containment area may be discharged only after the Permittee conducts testing to confirm that it contains none of the relevant pollutants stored therein. For petroleum storage containment areas, visual inspection for a sheen fulfills this requirement. If testing is not conducted or if it indicates the presence of a relevant pollutant, this containment water must be treated and/or disposed of according to DEEP and federal regulations. The Permittee shall maintain documentation of inspections, testing, and release events.

(b) Dumpsters

The Permittee must ensure that all dumpsters, trash compactors, and "roll-off" containers used to store waste or recyclable materials are in sound watertight condition and have covers and drain plugs intact, or are in roofed areas that will prevent exposure to rainfall and will not allow dumpster leakage to enter any stormwater drainage system. All covers on dumpsters not under a roof must be closed when dumpsters are not being loaded or unloaded.

(c) Loading Docks

The Permittee shall provide that for all industrial activities initiated after July 15, 2003, loading docks (excluding those that allow a vehicle to enter the building) shall be protected with a permanent roof or other structure that protects the loading dock from direct rainfall. Stormwater collection and drainage facilities adjacent to the loading dock shall be designed and maintained in a way that prevents any materials spilled or released at the loading dock from discharging to the storm sewer system.

(10) Employee Training

The Permittee shall ensure that all employees whose activities may affect stormwater quality receive training within ninety (90) days of employment and at least once a year thereafter to make them familiar with the components and goals of these control measures and the Plan. Training shall address topics such as emergency equipment location, spill response management, control measures, inspection requirements, good housekeeping and materials management practices. Training shall be conducted or supervised by a member of the Pollution Prevention Team or other qualified person and a written record shall be maintained in the Plan, including the date(s), employee name, employee responsibility and training agenda.

(11) Non-Stormwater Discharges

The Permittee must eliminate non-stormwater discharges except as provided in "Non-Stormwater Discharge Certification" (Section 8(C)(2)(f)) or as authorized by this permit.

(12) Solid De-icing Material Storage

The Permittee must ensure that storage piles of de-icing materials (including pure salt, salt alternatives or either of these mixed with other materials) used for deicing or other commercial or industrial purposes that are in place for more than 180 days shall be enclosed or covered by a rigid or flexible roof or other structural means. Such structure shall not allow for the migration or release of material outside of the structure through its sidewalls. As a temporary measure (not to exceed two years from the effective date of this permit), a waterproof cover may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile) until a structure can be provided. For temporary storage piles of de-icing materials in place for less than 180 days per year, a waterproof cover may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile).

In addition, no new road salt or de-icing materials storage facilities shall be located within a 100-year floodplain as defined and mapped for each municipality under 44 CFR Part 59 et seq. or within 250 feet of a well utilized for potable drinking water supply or within a Level A aquifer protection area as defined by mapping pursuant to Section 22a-354c of the CGS.

(C) ***Stormwater Pollution Prevention Plan (Plan)***

(1) Implementation of Plan

(a) The Permittee shall develop, maintain, and implement the Stormwater Pollution Prevention Plan ("Plan") for the site. The Permittee shall perform all actions required by the Plan in accordance with the schedule set forth in "Deadlines for Plan Preparation and Compliance" (Section 8(C)(3)) of this permit and including implementation of the Control Measures in Section 8(B), inspections in Section 8(D) and monitoring in Section 8(E). The Plan shall include records and documentation of compliance with these elements and shall be kept on-site at all times, along with a copy of this permit. The Permittee shall maintain compliance with the Plan thereafter.

(b) The Permittee must update the existing Stormwater Pollution Prevention Plan ("Plan") for the site in accordance with the "Contents of the Plan" (Section 8(C)(2)), "Control Measures" (Section 8(B)), and "Monitoring" (Section 8(E)) sections of this permit. The Plan shall be recertified by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager in accordance with the "Plan Certification" (Section 8(C)(6)) and "Non-Stormwater Discharge Certification" (Section 8(C)(2)(f)) sections of this permit. The Permittee shall maintain compliance with such Plan thereafter.

(2) Contents of Plan

The Plan shall be representative of current site conditions and shall address, at a minimum, all the elements below. If an element is not applicable to the facility, the Plan shall identify

it and provide an explanation as to why the element does not apply.

(a) Facility Description

Provide a description of the nature of the industrial activities at the facility.

(b) General Location Map

Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the facility and all receiving waters to which stormwater discharges.

(c) Pollution Prevention Team

The Permittee shall identify a specific individual or individuals for the site who shall serve as members of a Stormwater Pollution Prevention Team ("team"). The team shall be responsible for implementing the Plan and assisting in the implementation, maintenance, and development of revisions to the Plan as well as maintaining control measures and taking corrective actions where required. At least one team member shall be present at the facility or on call during all operational shifts. The Plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the Plan. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit and the Plan.

(d) Potential Pollutant Sources

The Plan shall map and describe the potential sources of pollutants that may reasonably be expected to affect stormwater quality at the site or that may result in the discharge of pollutants during dry weather from the site. The Plan shall identify all activities and materials that may be a source of stormwater pollution at the site. Accordingly, the Plan shall include, but not be limited to the following:

(i) Site Map

A site map (at a defined or approximate scale) shall be developed showing:

(1) A north arrow and surveyed or approximate property lines including the total site acreage;

(2) Location of existing buildings and structures;

(3) The overall site size and amount of impervious coverage as well as an outline of the drainage area, including the extent of impervious surface, for each stormwater outfall and direction of flow within the drainage area;

(4) Existing structural control measures installed to reduce pollutants in stormwater runoff;

(5) Locations of all stormwater conveyances including catch basins, ditches, pipes, and swales as well as the location of any non-stormwater discharges;

(6) The areal extent of any wetlands to which stormwater discharges;

(7) The receiving surface water body or bodies to which the site discharges including the identification of any impaired waters and whether or not a TMDL has been established for them;

(8) Location where major spills or leaks (identified under Section 8(C)(2)(d)(iv) below) have occurred;

(9) Locations of all stormwater monitoring points including latitude and longitude, where available;

(10) Locations of discharges to a municipal storm sewer system;

(11) Locations of discharges to groundwater through an infiltration system;

(12) Locations where any drainage run-on enters the site; and

(13) Each location of the following activities and associated types of pollutants where such activities are exposed to precipitation:

- Fueling stations;
- Vehicle and equipment maintenance and/or cleaning areas;
- Loading/unloading areas;
- Locations used for the treatment, storage or disposal of wastes;
- Liquid storage tanks;
- De-icing material storage areas;
- Processing areas;
- Storage areas;
- Areas with the potential for erosion that may impact surface waters or wetlands or may have off-site impacts; and
- Any other potential pollutant sources.

(ii) Inventory of Exposed Materials

A tabular inventory of non-gaseous materials at the site, including a description of potential pollutants associated with those materials that may be exposed to stormwater between the time of three years prior to the date of certification of the Plan and the present for the following areas:

(1) Loading and unloading operations;

(2) Roof areas;

(3) Outdoor storage activities;

(4) Outdoor manufacturing or processing activities;

(5) Dust or particulate generating processes; and

(6) On-site waste disposal practices.

(iii) Summary of Potential Pollutant Sources

A narrative summary of each area of the site specified in "Inventory of Exposed Materials" (Section 8(C)(2)(d)(ii), above) of this permit and each associated potential source of pollution. Such summary shall include:

(1) Method and location of on-site storage or disposal;

(2) Materials management practices employed to minimize contact of materials with stormwater runoff between the time of three years prior to the effective date of this permit and the present;

(3) The location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff; and

(4) A description of any treatment the stormwater receives.

(iv) Spills and Leaks

A list of spills and leaks of five gallons or more of petroleum products, or of toxic or hazardous substances which could affect stormwater, as listed in section 22a-430-4 (Appendix B Tables II, III and V, and Appendix D) of the RSCA, and 40 CFR Part 116.4, that occurred at the facility after the date of three years prior to the date of certification of the Plan.

(e) Control Measures

The Permittee must document the location and type of control measures installed and implemented at the site in accordance with "Control Measures" (Section 8(B)). The Permittee shall discuss the appropriateness and priorities of control measures in the Plan and how they address identified potential sources of pollutants at the site. The Plan shall include a schedule for implementing such controls measures if not already implemented.

(f) Non-Stormwater Discharge Certification

The Plan shall include the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

"I certify that in my professional judgment, the stormwater discharge from the site consists only of wastewater and stormwater defined in Tables D and E of CT NPDES Permit #CT0000841, issued under Section 22a-430 of the Connecticut General Statutes.

This certification is based on testing and/or evaluation of the stormwater discharge from the site. I further certify that all potential sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test have been described in detail in the Stormwater Pollution Prevention Plan prepared for the site. I further certify that no interior building floor drains exist unless such floor drain connection has been approved and permitted by the Commissioner or otherwise authorized by a local authority for discharge as domestic sewage to sanitary sewer. I am aware that there may be significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(g) Consistency with Other Plans and Permits

The Plan may reference requirements contained in a Spill Prevention Control and Countermeasure ("SPCC") plan or a plan prepared or approved under the Resource Conservation and Recovery Act ("RCRA") and other plans required by state, federal or local law. A copy of the pertinent sections of any referenced plan must be kept with the Plan. The Plan shall identify all general and individual permits issued by the DEEP for which the facility is authorized.

(h) Future Construction

Note that any construction activity that disturbs greater than one acre must be conducted in accordance with the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (as amended). All construction activities, regardless of size, shall comply with the Connecticut Guidelines for Soil Erosion and Sediment Control published on September 30, 2023 (sescg_cleanfinal.pdf (ct.gov)) and the Connecticut Stormwater Quality Manual for the design and implementation of post-construction stormwater management measures. In addition, the Permittee shall avoid, wherever possible, the use of copper or galvanized roofing or building materials for any new building construction where these materials will be exposed to stormwater.

(i) Monitoring Program

A description of the monitoring program and sampling data for stormwater discharges at the site, in accordance with the "Monitoring" section (Section 8(E)) and Tables D, E, and C in Section 5 of this permit.

(j) Schedules and Procedures

The Permittee shall document in the Plan the schedules and procedures for implementation of control measures, monitoring and inspections. These include but are not limited to: sweeping, waste management practices and other good housekeeping measures; regular inspections, testing, maintenance, and repair of all industrial equipment and systems potentially exposed to stormwater; procedures for preventing and responding to spills and leaks; employee training; routine, semiannual and any other inspections; visual monitoring; and any quarterly, semiannual, effluent limitation

and/or impaired waters monitoring.

(3) Signature and Plan Review

(a) The Plan shall be signed as follows:

(i) For a corporation, by a responsible corporate officer or a duly authorized representative thereof, as those terms are defined in Section 22a-430-3(b)(2) of the RSCA;

(ii) For a partnership or a sole proprietorship, by a general partner or the proprietor, respectively.

When a Plan is signed by a duly authorized representative, a statement of authorization shall be included in the Plan. The Plan shall also be certified, in accordance with "Plan Certification" (Section 8(C)(6)) of this permit, by a professional engineer licensed in the State of Connecticut or a Certified Hazardous Materials Manager.

The Plan shall be retained on site at the facility that generates the stormwater discharge.

(b) The Permittee shall make a copy of the Plan available to the following immediately upon request:

(i) The Commissioner at his/her own request or as the result of a request from a member of the public;

(ii) In the case of a stormwater discharge associated with industrial activity which discharges through a municipal separate storm sewer system, to the operator of the municipal system; and

(iii) In the case of a stormwater discharge associated with industrial activity which discharges to a water supply watershed, to the public water supply company.

(c) The Commissioner may notify the Permittee at any time that the Plan does not meet one or more of the requirements of this section. Within 120 days of such notification unless otherwise specified by the Commissioner in writing, the Permittee shall revise the Plan, perform all actions required by the revised Plan, and shall inform the Commissioner in writing that the requested changes have been made and implemented, and such other information as the Commissioner requires.

(4) Keeping Plan Current

The Permittee shall amend the Plan when:

(a) There is a change at the site which has an effect on the potential to cause pollution of the surface waters of the state;

(b) The actions required by the Plan fail to ensure or adequately protect against pollution of the surface waters of the state; or

(c) The Commissioner requests modification of the Plan;

(d) The Permittee is notified that they are subject to requirements because the receiving water to which the industrial activity discharges has been designated as impaired under Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report;

(e) The Permittee is notified that a TMDL to which the Permittee is subject has been established for the stormwater receiving water;

(f) Necessary to address any significant sources or potential sources of pollution identified as a result of any inspection or visual monitoring; and

(h) Required as a result of monitoring benchmarks or effluent limitations in the "Monitoring" Section of this permit at Section 8(E).

The Plan shall be amended and all actions required by the Plan shall be completed within one hundred twenty (120) days (or within another interval as may be specified in this permit or as may be approved in writing by the Commissioner) of the date the Permittee becomes aware or should have become aware that any of the conditions listed above have occurred.

If significant changes are made to the site or to the Plan in accordance with paragraphs 4(a)-(f) above, the Plan shall be recertified in accordance with the "Non-Stormwater Discharges" (Section 8(B)(11)) and "Plan Certification" (Section 8(C)(6)) sections of this permit, by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager. The Permittee shall maintain compliance with such Plan thereafter.

(5) Failure to Prepare or Amend Plan

In no event shall failure to complete or update a Plan in accordance with the "Development of Plan" (Section 8(C)(1)) and "Keeping Plan Current" (Section 8(C)(5)) sections of this permit relieve a Permittee of responsibility to implement actions required to protect the surface waters of the state, complete any actions that would have been required by such Plan, and to comply with all conditions of the permit.

(6) Plan Certification

The Plan shall contain the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

"I certify that I have thoroughly and completely reviewed the Stormwater Pollution Prevention Plan prepared for this site. I further certify, based on such review and site visit by myself or my agent, and on my professional judgment, that the Stormwater Pollution Prevention Plan meets the criteria set forth in Permit No. CT0000841. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(D) ***Inspections***

(1) Semi-Annual Inspections

The Permittee must provide that qualified personnel shall conduct comprehensive site inspections at appropriate intervals specified in the Plan, but in no event less frequently than twice a year. Such evaluations shall, at a minimum, include:

(a) Visual inspection of material handling areas and other potential sources of pollution identified in the Plan for evidence of, or the potential for, pollutants entering the stormwater drainage system. Structural stormwater management measures, erosion control measures, control measures and other structural pollution prevention measures identified in the Plan shall be observed to ensure that they are implemented and maintained properly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made. Inspections should be made during rainfall events if possible.

(b) Preparation of a report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, major observations relating to the Plan, actions taken, and updates made to the Plan shall be made and retained as part of the Stormwater Pollution Prevention Plan for at least five years. The report shall be signed by the Permittee.

(2) Routine Inspections

In addition to the Semi-Annual Inspections required above, the Permittee shall identify in the Plan qualified personnel to visually inspect designated equipment and specific sensitive areas of the site at least monthly. A written set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of routine inspections shall be maintained in the Plan kept on-site.

(E) ***Monitoring Requirements***

(1) Outfall Monitoring

The Permittee must conduct the following NPDES permit outfall (wet weather) monitoring for Outfall DSN 01W-1 in accordance with this section and Table F of Section 5 of this permit. In addition, the Permittee may be required to modify their Plan and control measures based on their monitoring results.

(a) Standard Monitoring Parameters

The Permittee is required to monitor for the standard parameters as specified in Table B of this permit.

(i) Visual Monitoring

Once each quarter for the entire permit term, the Permittee must collect a stormwater sample from outfall DSN 01W-1 in accordance with Table F of this permit and conduct a visual assessment of each of these samples. These samples should be collected in such a manner that the samples are representative of the stormwater discharge. For monitoring purposes, quarters will begin on January 1, April 1, July 1 and October 1.

The visual assessment must be made of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area. The Permittee must visually inspect the sample for the presence of some water quality characteristics such as: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen and other obvious indicators of stormwater pollution.

If, based on the above indicators, the visual assessment indicates the control measures for the facility are inadequate or are not being properly operated and maintained, the Permittee must review and revise the selection, design, installation and implementation of the control measures to ensure that the condition is eliminated and will not be repeated in the future. The Permittee shall maintain documentation of these procedures in the Plan.

(ii) General Monitoring Requirements

Upon the effective date of this permit, stormwater monitoring shall be conducted in accordance with Table F in Section 5 of this permit (DSN 01W-1).

(iii) In addition to the list of parameters in Section 8(E)(1)(a) of this permit, uncontaminated rainfall pH shall be measured for the same rain event during which the runoff sample is taken.

(b) Standard Monitoring Benchmarks

The Permittee is required to comply with the benchmarks for the standard parameters as specified in this subsection. Benchmarks are applicable to outfall DSN 01W-1.

(i) Schedule

Benchmark monitoring must be conducted quarterly, as specified in Section 8(E)(1)(a) upon the effective date of this permit. Benchmark monitoring may be conducted in conjunction with the quarterly "Visual Monitoring" in Section 8(E)(1)(a)(i), above.

(ii) Benchmarks

These benchmarks apply to the following parameters.

Chemical Oxygen Demand (mg/l)	75
Total Copper (mg/l)	0.059
Total Oil and Grease (mg/l)	5
Sample pH (S.U.)	5.0 – 9.0
Total Suspended Solids (mg/l)	90
Total Phosphorus (mg/l)	0.40
Total Kjeldahl Nitrogen (mg/l)	2.30
Nitrate as Nitrogen (mg/l)	1.10
Total Lead (mg/l)	0.076
Total Zinc (mg/l)	0.160

The Commissioner may require additional measures to reduce the discharge of pollutants for any discharge specifically found to be causing or contributing to an exceedance of Water Quality Standards in the receiving water. Provided the Permittee complies with all requirements of this Standard Monitoring Benchmarks subsection, exceedance of the benchmarks is not, in itself, a violation of this permit.

(iii) Data exceeding benchmarks

Within 120 days of receiving the results of the fourth quarter sample, if the average of the four quarterly monitoring values for any parameter exceeds the benchmark, the Permittee must, in accordance with the "Keeping Plan Current" (Section 8(C)(5)) section, review the selection, design, installation and implementation of the control measures to determine if modifications are necessary to meet the benchmarks in this permit, and either:

(1) Make the necessary modifications to the control measures and Plan and continue quarterly monitoring until the Permittee has completed four consecutive quarterly monitoring events for which the average does not exceed the benchmark; or

(2) Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to implement additional control measures or meet the benchmarks. The Permittee must also document the rationale for concluding that no further pollutant reductions are achievable and submit this documentation to the Commissioner for written approval. The Permittee must retain all records related to this documentation with the Plan.

If an exceedance of the four-event average is mathematically certain, the Permittee must review the control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full four monitoring events, in accordance with the "Keeping Plan Current" (Section 8(C)(5)) section. If after modifying the control measures and conducting additional quarterly monitoring, the average of the most recent four monitoring events still exceeds the benchmark (or if an exceedance of the benchmark by the four-event average is mathematically certain for the most recent four monitoring events), the Permittee must again review the control measures and take one of the two actions above.

(iv) Off-site and natural background pollutant levels

Following the first four quarter samples of benchmark monitoring (or sooner if the exceedance is triggered by less than four monitoring events), if the average concentration of a pollutant exceeds a benchmark value, and the Permittee determines that exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background or in "run-on" entering from off-site, the Permittee is not required to perform corrective action or additional benchmark monitoring provided all of the following conditions are met:

(1) The average concentration of the benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background or off-site run-on;

(2) The Permittee documents and maintains with the Plan the supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background or off-site pollutant levels. The Permittee must include in the supporting rationale any data previously collected by them or others that describe the levels of natural background pollutants in the stormwater discharge;

(3) The Permittee demonstrates that the diversion of off-site run-on containing these pollutant levels is not feasible or practicable;

(4) The Permittee notifies the Commissioner on the final quarter benchmark monitoring report that the benchmark exceedances are attributable solely to natural background or off-site pollutant levels; and

(5) The Commissioner issues a written approval of the Permittee's documentation demonstrating that the benchmark exceedances are attributable solely to natural background or off-site pollutant levels.

Natural background pollutants include those substances that are naturally occurring in rainfall, soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site.

(2) Stormwater Monitoring Procedures

(a) All samples shall be collected from discharges resulting from a storm event that occurs at least 48 hours after any previous storm event generating a stormwater discharge. Any sample containing snow or ice melt must be identified on the DMR.

The sample shall be taken at the stormwater collection system manhole upstream of inlet to the lower basin discharge from the sedimentation basin, consistent with Table F in Section 5 of this permit (DSN 01W-1). If no discharge that meets the conditions of the previous paragraph occurs during a monitoring period, a DMR shall still be submitted in accordance with the "Reporting Requirements" of Section 7(C) of this permit. In such a case, indicate no discharge has occurred using NODI code "C", on the DMR.

Grab samples shall be used for all monitoring and shall not be combined. Collection of grab samples shall begin during the first thirty (30) minutes of a storm event discharge (flow at sampling location) and shall be completed as soon as possible. Samples shall be taken at the outfall or nearest feasible location representative of the discharge. The uncontaminated rainfall pH measurement shall also be taken, when required, at this time. All discharge samples at a facility must be taken during the same storm event, if feasible.

(b) Storm Event Information

The following information shall be collected for the storm events monitored:

(i) The date, discharge temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the storm event sampled;

(ii) The pH of the uncontaminated rainfall (before it contacts the ground); and

(iii) The duration between the storm event sampled and the end of the most recent storm event that produced a discharge.

SECTION 9: REPORTING REQUIREMENTS

(A) 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 Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapter N or O, 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 9(D) 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
79 Elm Street, Hartford, CT 06106-5127

(B) 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-02-014, including complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, LC_{50} values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, including measured daily flow and hours of operation for the 30 consecutive operating days prior to sample collection. The ATMR shall be submitted electronically as an attachment to the DMR, and via email to: DEEP.IndustrialWetReports@ct.gov. The ATMR required by Section 7(A) and 7(B) shall be received at this address by the last day of the month following the month in which the samples are collected.

(C) 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.

(D) 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 and 6 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 Part 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 10: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

(A) *Noncompliance Notifications:*

(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:

(a) A noncompliance that is greater than two times an effluent limitation;

(b) A noncompliance of any minimum or maximum daily limitation or excursion beyond a minimum or maximum daily range;

(c) Any condition that may endanger human health or the environment, including but not limited to noncompliance with WET limitations;

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

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

(f) Any actual or potential bypass of the Permittee's collection system or treatment facilities; or

(g) 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.

(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.

(3) Within five days of any notification of noncompliance in accordance with Sections 10(A)(1)(a) through 10(A)(1)(f) 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.

(4) Within 30 days of any notification of facility modifications reported in accordance with Section 10(A)(1)(g) 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.

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

(B) In accordance with Section 22a-430-3(j)(11)(E) of the RCSA, 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 RCSA 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.

(C) 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.

(D) 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 10(A). 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 9(B) 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.

(E) 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 11: COMPLIANCE SCHEDULE

(A) ***Per – and Polyfluoroalkyl Substances ("PFAS") Sampling Plan.***

On or before 30 days after the effective date of this permit, the Permittee shall employ or retain one or more qualified professionals acceptable to the Commissioner to prepare the documents and implement or oversee the actions required by this section of the permit and shall, by that date, notify the Commissioner in writing of the identity of such professionals. Such professionals employed or retained by the Permittee shall have demonstrated knowledge of PFAS and the sampling protocols and analytical laboratory methods associated with identifying and quantifying PFAS. The Permittee shall employ or retain one or more qualified professionals acceptable to the Commissioner until the actions required by this section of the permit have been completed, and within ten (10) days after employing or retaining any professional(s) other than one(s) originally identified under this paragraph, the Permittee shall notify the Commissioner in writing of the identity of such other professional. The Permittee shall submit to the Commissioner a description of the professional's education, experience, and training, which is relevant to the work required by this permit within ten (10) days after a request for such a description. Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable professional unacceptable.

(1) On or before 120 days after the effective date of this permit, the Permittee shall submit for the Commissioner's review and approval a sampling plan for the analysis of PFAS in outfalls DSN 001-D and DSN 001-W using sufficiently sensitive test methods. PFAS analyses shall be performed using the methods approved by EPA pursuant to 40 CFR Part 136 and performed by a lab certified by Connecticut Department of Public Health. If no such test method is approved by EPA pursuant to 40 CFR 136, PFAS analyses shall be performed in accordance with EPA Method 1633. The sampling plan must indicate at least two sampling events of the prescribed discharges. At a minimum this plan must identify the test method, laboratory, and sampling protocols including sample quality control procedures to be implemented.

(2) On or before 30 days after the Commissioner's approval, the Permittee shall conduct PFAS sampling in accordance with the approved plan and shall submit the analytical report to DEEP within 30 days of receiving the results.

(B) ***pH Effluent Limit Compliance Schedule.***

The Permittee shall achieve compliance with the pH effluent limitations in Table A (DSN 001-D) of Section 5 of this permit, as soon as possible, but in no event later than 12 months after the effective date of this permit in accordance with the following:

(1) On or before 90 days after the date of issuance of this permit, the Permittee shall submit for the Commissioner's review and written approval a comprehensive plan and thorough report which describes and evaluates alternative actions which may be taken by the Permittee to achieve compliance with the pH limitations in Section 5 of this permit. Such report shall:

(a) Evaluate alternative actions to achieve compliance with Section 5 limits including, but not limited to, pollutant source reduction, process changes/innovations, chemical substitutions, recycle and zero discharge systems, water conservation measures, and other internal and/or end-of-pipe treatment

technologies;

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

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

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

(e) Propose a detailed program and schedule, including the start and anticipated end dates, to perform all actions required by the preferred alternative including but not limited to a schedule for submission of engineering plans and specifications on any internal and/or end of pipe treatment facilities, start and completion of any construction activities related to any treatment facilities, and applying for and obtaining all permits and approvals required for such actions.

(C) ***Dry Weather Discharge Evaluation.***

On or before 12 months after the effective date of this permit, the Permittee submit for the Commissioner's review, a comprehensive report that evaluates methods to ensure wastewater sources (cooling tower blowdown, steam condensate from boiler operations, and fire suppression testing wastewaters) comply with effluent limits specified in Table A and Table B of Section 5 of the permit during wet weather discharges. This includes evaluating (1) the treatment system's capacity to treat wastewater sources during wet weather discharges; (2) options for segregating the commingled stormwater and wastewater sources; and (3) options for expanding the treatment system to ensure wastewater effluent limits are achieved consistently during both wet and dry weather discharges. The report shall include the following, at a minimum:

(1) Results of monthly monitoring for aluminum, ammonia, chlorine, copper, iron, lead, pH, total suspended solids and zinc in influent and effluent to the treatment system during dry weather and wet weather. Influent and effluent samples shall be paired to account for detention time across the treatment system and to evaluate removal efficiency of pollutants across the treatment system during dry weather and wet weather discharges;

(2) An evaluation of the treatment system's capacity to treat wastewater sources during wet weather discharges;

(3) An evaluation and identification of actions to ensure wastewater sources comply with effluent limits specified in Table A and B of Section 5 of the permit during wet weather discharges, including, but not limited to, options for segregating the commingled stormwater and wastewater sources during wet weather discharges, and options for expanding the treatment system to ensure wastewater effluent limits are achieved consistently during both wet and dry weather discharges;

(4) Provide an implementation schedule for performing each alternative identified in Section 11(C)(3);

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

22a-430 of the CGS;

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

(7) Propose a detailed program and schedule to perform all actions required by the preferred alternative including but not limited to a schedule for submission of engineering plans and specifications on any internal and/or end of pipe separation, start and completion of any construction activities related to wet/dry weather discharge separation, and applying for and obtaining all permits and approvals required for such actions.

(D) The Permittee shall submit the reports in Sections 11(B and C) for the Commissioner's review and approval. The Commissioner reserves the right to reopen and amend this permit to require implementation of the approved plan and schedule.

(E) The Permittee shall submit to the Commissioner semi-annual status reports on June 30th and December 31st of each year, beginning sixty days after the date of concurrence of the reports referenced in Sections 11(B and C). Status reports shall include the following:

(1) A summary of all effluent monitoring data collected by the Permittee during the previous six (6) month period;

(2) A description of the work performed by the Permittee during the past six (6) months towards compliance with Sections 11(B and C) above;

(3) An assessment of whether the Permittee is on schedule to comply with the compliance deadline;

(4) If the Permittee is not on-track to comply with the compliance deadline, the steps the Permittee will take to comply; and

(5) Status reports of Sections 11(B and C) shall include the start and anticipated end dates of the anticipated report submission date.

(F) The Permittee shall submit to the Commissioner all documents required by this section of the permit in a complete and approvable form. If the Commissioner notifies the Permittee that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and the Permittee shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within 30 days of the Commissioner's notice of deficiencies. In approving any document or other action under this Compliance Schedule, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this section of the permit. Nothing in this paragraph shall excuse noncompliance or delay.

(G) Dates. The date of submission to the Commissioner of any document required by this section of the permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as

otherwise specified in this permit, the word "day" as used in this section of the permit means calendar day.
Any document or action which is required by this section of the permit to be submitted, or performed, by a date which falls on, Saturday, Sunday, or a Connecticut or federal holiday, shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or Connecticut or federal holiday.

(H) Notification of noncompliance. In the event that the Permittee becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this section of the permit or of any document required hereunder, the Permittee shall immediately notify the Commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, minimized to the greatest extent possible. In so notifying the Commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates, which may be approved in writing by the Commissioner. Notification by the Permittee shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.

(I) Notice to Commissioner of changes. Within 14 days of the date the Permittee becomes aware of a change in any information submitted to the Commissioner under this section of the permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the permittee shall submit the correct or omitted information to the Commissioner.

(J) Submission of documents. Any document, other than a discharge monitoring report, required to be submitted to the Commissioner under this section of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

DEEP.IndustrialNPDESCompliance@ct.gov with the subject line "CT0000841"

This permit is hereby issued on

JENNIFER PERRY, P.E.
Bureau Chief

JP/ OF

National Pollutant Discharge Elimination System Permit
Factsheet

SECTION 1 FACILITY SUMMARY

APPLICANT	King Industries, Inc.
PERMIT NO.	CT0000841
APPLICATION NO.	202302698
DATE APPLICATION RECEIVED	March 27, 2023
LOCATION ADDRESS	Science Road, Norwalk, CT 06852
FACILITY CONTACT	Michael Bourgoin Office Phone: (203) 866-5551 Email: mbourgoin@kingindustries.com
MAILING ADDRESS	Science Road, Norwalk, CT 06852
DMR CONTACT	Michael Bourgoin Office Phone: (203) 866-5551 Email: mbourgoin@kingindustries.com
SECRETARY OF STATE BUSINESS ID	0088597
PERMIT TERM	5 Years
PERMIT CATEGORY	National Pollutant Discharge Elimination System ("NPDES") MINOR ("MI")
SIC & NAICS CODE(S)	2869 & 325199
APPLICABLE EFFLUENT GUIDELINES	None
PERMIT TYPE	Reissuance
OWNERSHIP	Private
RECEIVING WATER	Norwalk Harbor
WATERBODY SEGMENT ID'S	CT-W1_012-SB
WATERBODY CLASSIFICATION	SB
DISCHARGE LOCATIONS (LAT, LONG)	DSN 001-D/DSN 001-W: 41º 06' 30.5", - 73º 24' 43"
COMPLIANCE ACTIONS	Yes (Per- and Polyfluoroalkyl Substances (PFAS) sampling & wet weather discharge requirements)
DEEP STAFF ENGINEER	Oluwatoyin Fakilede (860-418-5986) Oluwatoyin.fakilede@ct.gov

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1.1 PERMIT FEES

Application Fee:

Filing Fee	Invoice No.: DEP403127	Amount: $1,300	Date Paid: 3/27/2023
Processing Fee	Invoice No.: DEP404382	Amount: $ 16,612.50	Date Paid: 5/2/2023

Annual Fee (per Regulations of Connecticut State Agencies ("RCSA") Sec. 22a-430-7 and General Statutes of Connecticut ("CGS") Sec. 22a-6f):

DISCHARGE CODE	WASTEWATER CATEGORY	FLOW CATEGORY (Gallons per day)	DSNs	ANNUAL FEE
1080000	Stormwater	Variable	001-W	$2,912.50
102000b	Non-contact cooling water ("NCCW")	17,000	001-D	$ 660.00
121000a	Fire suppression testing wastewater	5,000	001-D	$ 0
170000n	Boiler blowdown	15,000	001-D	$ 0
TOTAL AMOUNT				$3,572.50

1.2 APPLICATION SUBMITTAL INFORMATION

On March 27, 2023, the Department of Energy and Environmental Protection ("DEEP") received an application (Application No. 202302698) from King Industries, Inc. ("Permittee", "Applicant") located in Norwalk, Connecticut, for the renewal of NPDES permit, CT0000841, expiring on September 30, 2023 ("the previous permit").

Consistent with the requirements of Section 22a-6g of the Connecticut General Statutes ("CGS"), the Applicant published a Notice of Permit Application in The Norwalk Hour newspaper on March 17, 2023. On May 18, 2023, the application was determined to be timely and administratively sufficient.

The Permittee seeks authorization for the following in Application No. 202302698:

DSN	PROPOSED AVERAGE DAILY FLOW	PROPOSED MAXIMUM DAILY FLOW	PROPOSED WASTESTREAMS	TREATMENT TYPE	DISCHARGE TO
001-D	25,000 gallons per day ("gpd")	47,000 gpd	NCCW, boiler blowdown and fire suppression testing wastewater.	pH adjustment, dechlorination, oil-water separation, and gravity settling.	Norwalk Harbor
001-W	Dependent on precipitation	Dependent on precipitation	Stormwater with commingled wastewater discharges identified in DSN 001-D.	Best management practices.	

1.3 OTHER PERMITS

Other discharges from the site are covered under the following permitting mechanisms:

- The stormwater from the site that is not permitted under NPDES permit No. CT0000841 is permitted under the "General Permit for the Discharge of Stormwater Associated with Industrial Activity" (GSI000628).

- Discharges to the City of Norwalk Water Pollution Control Facility comprising of process water from the manufacturing of organic chemicals are covered under Pretreatment Permit No. SP0000113.

1.4 FACILITY DESCRIPTION

King Industries is a specialty organic chemicals manufacturing facility located on Science Road on approximately 6.6 acres of land adjacent to the Norwalk River. The facility produces specialty organic chemicals such as corrosion inhibitors, coating catalysts, coating additives, and plasticizers. The facility operates for 24-hours per day for 5-6 days per week. Production occurs in Buildings #2, 3, 4 and 6; laboratories are in Buildings #2 and 10; and the two warehouses are in Buildings #1 and 9. Wastewater from the manufacturing process is discharged to the City of Norwalk Water Pollution Control Facility via Pretreatment Permit No. SP0000113. The proposed NPDES permit covers the following wet weather and dry weather wastewater discharges to the Norwalk River:

Dry weather discharge: This discharge is comprised of a maximum of 47,000 gallons per day of treated NCCW, steam condensate from boilers (boiler blowdown), fire suppression testing wastewater from the facility's two boilers, main cooling tower, and Building #6 cooling tower. This discharge may also include residual stormwater that remains in the NPDES Basin Treatment System from the wet weather discharge. These discharges are considered "dry weather discharges" and are regulated under DSN 001-D when not commingled with stormwater. This discharge is treated through the NPDES Basin Treatment System before discharged to the Norwalk River.

Wet weather discharge: This discharge is comprised of stormwater from the facility's loading and unloading dock, paved parking and materials transfer areas, and tank farm #1 – 4 containment areas. This stormwater commingles with NCCW, boiler blowdown, and fire suppression testing wastewater in the NPDES Basin Treatment System and discharges to the Norwalk River, regulated via DSN 001-W. The remainder of stormwater on the site drains directly to the Norwalk River through storm drains under the authority of the General Permit for the Discharge of Stormwater Associated with Industrial Activity.

All drainage from areas containing bulk storage tanks flows to the NPDES Basin Treatment System. The tanks are in diked areas and/or are of double walled construction. All diked areas are sized to be at least 110% of the volume of the largest tank therein. The boiler condensate tank is not located in a diked area. In the event of a leak or spill from this tank, material would either be contained locally, or it would flow to the NPDES Basin Treatment System, where condensate is an authorized discharge.

1.5 FACILITY CHANGES

There were no recent or newly requested changes to the facility for this permit renewal.

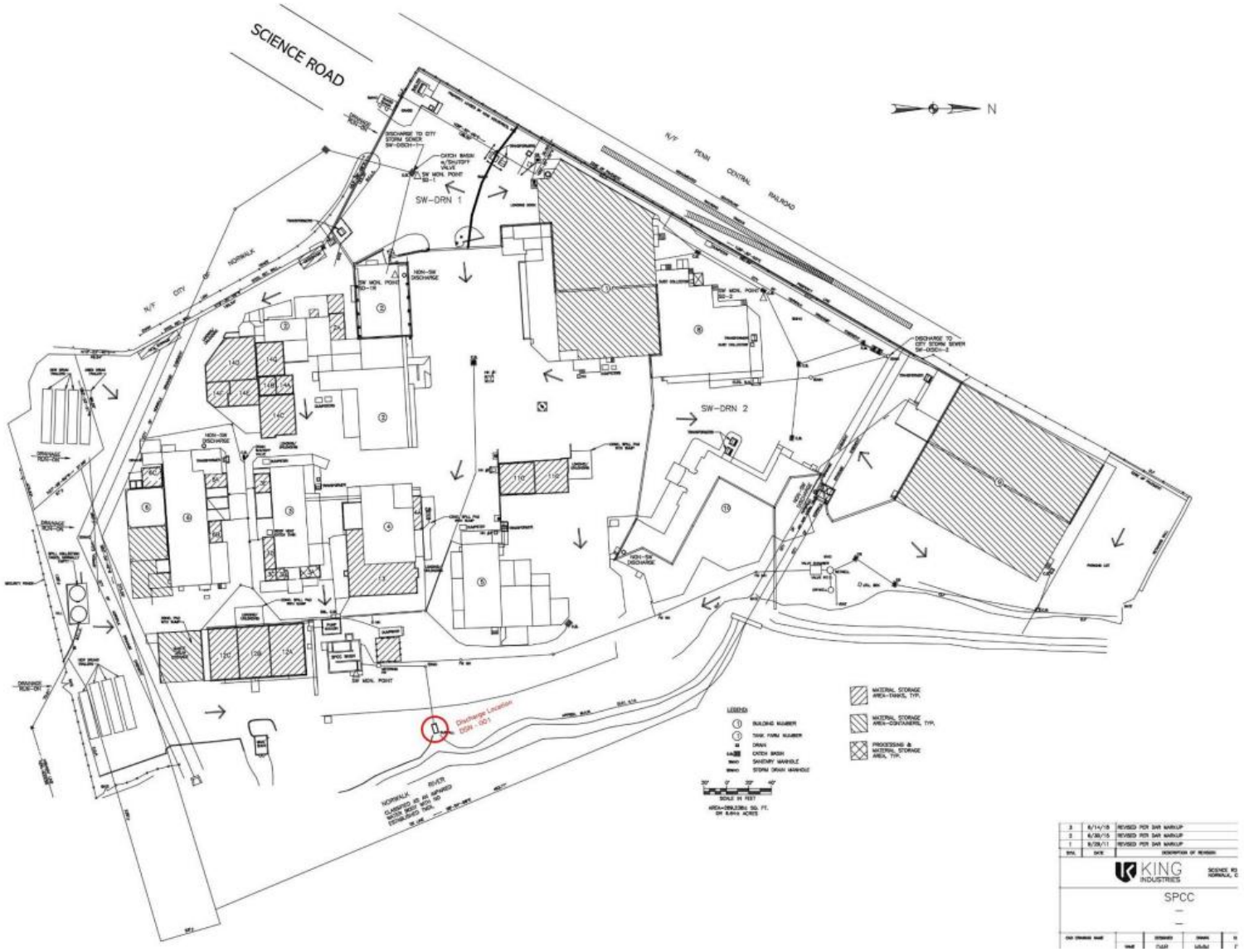
1.6 TREATMENT SYSTEM DESCRIPTION

The NPDES Basin Treatment System comprised of one 8,000-gallon concrete in-ground tank known as the lower basin, one 28,000-gallon concrete in-ground sedimentation basin known as the upper basin, temperature adjustment, pH adjustment, dechlorination, and an oil water separator.

Dry and wet weather discharges flow into the lower basin via gravity. Two 300 gallon per minute (gpm) and two 400 gpm pumps move wastewater from the lower basin to the upper basin. Following sedimentation in the upper basin, wastewater pH is adjusted, dechlorinated, and flows through an oil-water separator before discharging to the Norwalk Harbor via a 15" underground discharge pipe. The pipe is equipped with an air-controlled discharge ball valve. When the temperature of water in the lower basin is higher than the permitted temperature limit of 95°F, spray coolers are activated to cool the water to a temperature below 95°F. The system is monitored with influent and effluent pH probes and an effluent temperature probe at the upper basin.

The NPDES Basin Treatment System is designed to treat dry weather discharge flows. pH adjustment, chlorination, and spray coolers are not operated during wet weather discharges.

Figure 1.4. Image of Site Plan



1.7 COMPLIANCE HISTORY

Based on the Permittee's Discharge Monitoring Reports ("DMR") data evaluated from May 2019 to April 2024, the Permittee reported the following effluent violations.

EFFLUENT VIOLATIONS IN THE PAST 5 YEARS					
MONTH/ YEAR	**DSN**	**PARAMETER**	**TYPE OF LIMIT**	**PERMITTED LIMIT**	**EXCEEDENCE**
4/2021	DSN 001-D	Copper, Total	Average monthly limit	46 µg/l	130 µg/l
4/2021		Copper, Total	Maximum daily limit	77 µg/l	130 µg/l

1.7.1 ONGOING ENFORCEMENT ACTIONS

The Permittee is not subject to any ongoing enforcement action that pertain to the discharges covered under NPDES Permit No. CT0000841.

1.7.2 PREVIOUS PERMIT COMPLIANCE SCHEDULE

The previous permit had no compliance schedule.

1.7.3 SPILL HISTORY

Below is a list of spills that occurred at King Industries' site in the past five years.

Date	Material	Size (gal)	Location	Spill Report #
9/10/2019	Crude sulfonic acid	5	TF – B6 PP	
2/11/2020	dinonylnaphthalene	15	TF 4	2020-00376
8/4/2020	PFAS FOAM and Water	~620	TF4(18 gal foam/600 water)	2020-03172
8/5/2020	A-308 Resin Modifier	10	Front of Hotbox 903	2020-03182
9/15/2020	PFAS FOAM and Water	100	TF 4 (3 gal foam/97 gal water)	2020-04230
10/15/2020	KR008 alkylate	5	B6Pilot Plant	2020-04724
3/30/2021	Glycol and water	50	B3 roof	2021-01128
5/4/2021	DNN and heptane	5	Bldg 3 TF3E	2021-01644
5/28/2021	Formaldehyde 37%	5	Bldg 9 Warehouse	2021-02054
6/22/2021	Methanol	10	Bldg 4	2021-02461
7/6/2021	Zinc oxide	12	B9 warehouse	2021-02731
7/15/2021	PFAS FOAM - foamed spill	5	Bldg 9 Warehouse	2021-02895
7/15/2021	2077 Amine	30	Bldg 9 Warehouse	2021-02895
7/27/2021	NA-SUL ZS	7	Bldg 4	2021-03097
2/21/2022	PFAS FOAM	80	TF 6	2022-00761
2/28/2022	Barium Monohydrate	50 lbs	B9 Warehouse	2022-00839
3/2/2022	Nacure 1051	30	B6 west side	2022-00881
4/13/2022	KR 008C	10	Bldg 6	2022-01457
7/3/2022	Ethylene Glycol	50	Between Bldg 3 and 4	2022-02408
7/28/2022	GREEN FOAM	40	Bldg 9 Warehouse	2022-03342
8/8/2022	NA-LUBE KR-008	25	Bldg 6	2022-03470
2/24/2023	PFAS FOAM	48	S of Bldg 6	2023-00509
3/1/2023	KR 015C	40	Bldg 6	2023-00552
3/9/2023	Sulfuric Acid 66 Baume	25	SW of Bldg 3	2023-00636

The spills were contained and prevented from reaching the Norwalk River or the sanitary sewer, and immediately cleaned up.

1.8 GENERAL ISSUES RELATED TO THE APPLICATION

1.8.1 FEDERALLY RECOGNIZED INDIAN LAND

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

1.8.2 COASTAL AREA/COASTAL BOUNDARY

The activity is located within a coastal boundary as defined in CGS 22a-94(b), but the Permittee is not proposing to modify the physical footprint of the subject activity.

1.8.3 ENDANGERED SPECIES

The activity is located within an area identified as a habitat for endangered, threatened or special concern species according to the June 2024 State and Federal Listed Species and Natural Communities Map, but the Permittee is not proposing to modify the physical footprint of the subject activity.

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 aquifer protection 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 not located within a public water supply watershed.

SECTION 2 RECEIVING WATER BODY

2.1 RECEIVING WATER BODY INFORMATION

The receiving waterbody, Norwalk Harbor, is identified as CT-W1_012-SB. The segment of the Norwalk Harbor is classified as "SB" and its designated uses include; 1) habitat for fish and other aquatic life and wildlife, 2) recreation, 3) industrial water supply, 4) navigation, and 5) commercial shellfish harvesting, where authorized.
FINAL-2022-IWQR-Appendix-A-3-Connecticut-305b-Assessment-Results-for-Estuaries.pdf

Figure 2.1. Image of discharge location

The Norwalk Harbor is on the State's 305(b) list of impaired waters. It is impaired for its designated uses of habitat for marine fish, other aquatic life, and wildlife due to lead, nitrogen, mercury, nutrients, and low dissolved oxygen levels. It is also impaired for recreation due to *Enterococcus*. FINAL-2022-IWQR-Appendix-B-1-List-of-Impaired-Waters-for-Connecticut-EPA-Category-5.pdf

Figure 2.2. Image of Applicable Section of 2022 Connecticut Integrated Water Quality Report

Waterbody Segment ID	Waterbody Name	Location	Square Miles	Aquatic Life	Recreation	Shellfish	Shellfish Class
CT-W1_012-SB	LIS WB Inner - Norwalk Harbor, Norwalk	See Map for Boundaries. Western portion of LIS, Inner Estuary, from SA/SB water quality line at mouth of Norwalk Harbor (Calf Pasture Point), US to saltwater limit at Wall Street Crossing (EXCLUDES eastern cove of Marvin Beach), Norwalk.	0.942	Not Supporting	Not Supporting	Not Supporting	Commercial Shellfish Harvesting Where Authorized

Figure 2.3. Image of Applicable List of Impaired Waters for Connecticut

Waterbody Segment ID	Waterbody Name	Cause	Impaired Designated Use
CT-W1_012-SB	LIS WB Inner - Norwalk Harbor, Norwalk	LEAD	Habitat for Marine Fish, Other Aquatic Life and Wildlife
CT-W1_012-SB	LIS WB Inner - Norwalk Harbor, Norwalk	NITROGEN, TOTAL	Habitat for Marine Fish, Other Aquatic Life and Wildlife
CT-W1_012-SB	LIS WB Inner - Norwalk Harbor, Norwalk	MERCURY	Habitat for Marine Fish, Other Aquatic Life and Wildlife
CT-W1_012-SB	LIS WB Inner - Norwalk Harbor, Norwalk	NUTRIENTS	Habitat for Marine Fish, Other Aquatic Life and Wildlife
CT-W1_012-SB	LIS WB Inner - Norwalk Harbor, Norwalk	ENTEROCOCCUS	Recreation
CT-W1_012-SB	LIS WB Inner - Norwalk Harbor, Norwalk	DISSOLVED OXYGEN	Habitat for Marine Fish, Other Aquatic Life and Wildlife

2.2 APPLICABLE TOTAL MAXIMUM DAILY LOAD (TMDL)

A TMDL for fecal coliform (impairment to shellfish harvesting) has been established for Norwalk Harbor, Segment ID CT-W1_012-SB. This TMDL is part of the "Statewide Total Maximum Daily Load for Bacteria-Impaired Waters" (September 2013). FINAL-2022-IWQR-Appendix-B-2-Waterbodies-with-Adopted-TMDLs-EPA-Category-4a.pdf

The CT Water Quality Standards for fecal coliform are a geometric mean less than 88/100ml and 90% of samples less than 260/100ml. Although end of pipe bacteria measurements can identify and help prioritize sources that require attention, compliance with this TMDL will be based on ambient water quality and not water quality at the point of discharge (i.e., end of pipe). Therefore, monitoring requirements to assess potential sources for fecal coliform and Enterococci are included in the discharge permit.

"A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound" (December 2000) also applies to this segment of Norwalk Harbor. However, the Permittee's discharge has not been assigned a waste load allocation for nitrogen as part of this TMDL. Tmdl.pdf (longislandsoundstudy.net). Nitrogen monitoring is required in the permit.

Figure 2.4. Image of Applicable 2022 IWQR Waterbodies with Adopted TMDLs

Waterbody Segment ID	TMDL	Basin Number	Waterbody Name	Impaired Designated Use	Cause	EPA Approved	TMDL Link	Category/sub category
CT-W1_012-SB	CT Statewide Bacteria TMDL Estuary 1	N/A	LIS WB Inner Norwalk Harbor	Shellfishing	Fecal Coliform	2019	https://portal.ct.gov/-/media/DEEP/water/tmdl/CTFinalTMDL/estuary1norwalk	4a

SECTION 3 PERMIT CONDITIONS AND EFFLUENT LIMITATIONS

3.1 POLLUTANTS OF CONCERN

The following pollutants are included as monitoring pollutants in DSN 001-D of the permit for the reasons noted below:

POLLUTANT	REASON FOR INCLUSION		
	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
Aluminum, Total		✓	
Biological Oxygen Demand		✓	
Chemical Oxygen Demand		✓	
Chlorine, Total Residual		✓	
Copper, Total		✓	
Enterococci		✓	
Fecal coliform		✓	
Iron		✓	
Lead		✓	
Nitrogen, Ammonia		✓	

POLLUTANT	REASON FOR INCLUSION		
	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
Oil petroleum and total recoverable		✓	
Phosphorus, Total		✓	
Surfactants (MBAS)		✓	
Total Dissolved Solids		✓	
Total Organic Carbon		✓	
Total Suspended Solids		✓	
Total Toxic Organics			✓
Zinc, Total		✓	
Acute and chronic toxicity monitoring requirements are also included in the permit consistent with Section 22a-430-3(j)(3) of the RCSA. pH monitoring is included in the permit consistent with Section 22a-426-9(a)(1). Temperature monitoring is also included in the permit with a designated zone of influence.			

The following pollutants are included as monitoring pollutants in DSN 001-W of the permit for the reasons noted below:

POLLUTANT	REASON FOR INCLUSION		
	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
Aluminum, Total		✓	
Biological Oxygen Demand		✓	
Chemical Oxygen Demand		✓	
Chlorine, Total Residual		✓	
Copper, Total		✓	
Enterococci		✓	
Fecal coliform		✓	
Iron		✓	
Lead		✓	
Nitrogen, Ammonia		✓	
Oil and grease, Total		✓	
Phosphorus, Total		✓	
Surfactants (MBAS)		✓	
Total Dissolved Solids		✓	
Total Organic Carbon		✓	
Total suspended Solids		✓	
Total Toxic Organics			✓
Zinc, Total		✓	
Acute toxicity monitoring requirements is included in the permit consistent with Section 22a-430-3(j)(3) of the RCSA. pH monitoring is included in the permit consistent with Section 22a-426-9(a)(1).			

3.2 TECHNOLOGY BASED EFFLUENT LIMITATIONS

Technology-based treatment requirements represent the minimum level of control that must be imposed under CWA § 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 Code of Federal Regulations ("CFR") § 125 Subpart A and RCSA Section 22a-430-4(l)(4)(A).

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

None of EPA's ELGs are applicable to these discharges. In the absence of published technology-based effluent guidelines, the permit writer is authorized under CWA § 402(a)(1)(B) and RCSA Section 22a-430-4(m) to establish effluent limitations on a case-by-case basis using best professional judgment ("BPJ").

3.3 BASIS FOR LIMITS

Technology and water-quality based requirements are considered when developing permit limits. Technology-based effluent limits ("TBELs") represent the minimum level of control imposed under the Clean Water Act ("CWA"). Industry-specific technology-based limits are set forth in 40 CFR Sections 405 – 471 (EPA's Effluent Limitation Guidelines) and in RCSA 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 RCSA Section 22a-429-9 of the Connecticut Water Quality Standards ("WQS").

3.4 ZONE OF INFLUENCE

Section 22a-426-4(l) of the RCSA states that "The Commissioner may, on a case-by-case basis, establish zones of influence ("ZOI") when authorizing discharges to surface waters under Sections 22a-430 and 22a-133(k) of the CGS in order to allocate a portion of the receiving surface waters for mixing and assimilation of the discharge."

The previously assigned ZOI of 104,166 gph ("gallons per hour") was based on a 100:1 dilution factor. The dilution factor was carried forward, but the ZOI was corrected from 104,166 gph to 103,124 gph (see Section 3.6 of this fact sheet).

$$Average\ discharge\ flow\ (AML) = \frac{25{,}000\ gpd}{24} = 1{,}041.6\ gph$$

$$DF = 100 = \frac{AML + ZOI}{AML} = \frac{104{,}166 gph}{1{,}041.6 gph} = \frac{103{,}124\ gph}{1{,}041.6\ gph}$$

$$Therefore, upstream\ flow = 103{,}124\ gph\ and\ downstream\ flow = 104{,}166\ gpd.$$

3.5 RESONABLE POTENTIAL ANALYSIS

Pursuant to CWA § 301(b)(1)(C) and 40 CFR § 122.44(d)(1), NPDES permits must contain any requirements in addition to TBELs that are necessary to achieve water quality standards established under § 303 of the CWA. *See also* 33 U.S.C. § 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." 40 CFR § 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 § 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 § 122.44(d)(1)(i).

A reasonable potential analysis was conducted on the dry weather discharge from DSN 001-D. A reasonable potential analysis was not conducted on the wet weather discharge DSN 001-W because the wastewater discharge commingles with stormwater, see Section 3.13. The analysis below indicates that water quality-based limits are needed for copper and lead.

Table 3.5.1: Reasonable Potential Evaluation
(This analysis compares the projected maximum concentration (PMC) in the receiving stream with the applicable water quality criteria (WQC). When the PMC is lower than the WQC, there is no potential for the discharge to exceed the WQC. When the PMC is higher than the WQC, there is a potential for the discharge to exceed the WQC and permit limits are therefore needed.)

Q = Flow, C = Concentration, $(QC)_u$ = Upstream data, $(QC)_d$ = Downstream data, $(QC)_e$ = Effluent data and $Q_d = Q_u + Q_e$. Q_e = 25,000 gpd = 1,041.6 gph ≈ 1,042 gph, $Q_{u,ac/ch}$ = 103,124 gph, $Q_{d,ac/ch}$ = 104,166 gph, $Q_{u,he}$ = 206,248 gph, and $Q_{d,he}$ = 207,290 gph

Pollutants	PMC in effluent = Max. measured concentration X multiplier in Attachment 1	PMC in the waterbody $C_d = \frac{(QC)_u + (QC)_e}{Q_d}$	**Connecticut Water Quality Criteria (WQC) (Freshwater)**			**Is there potential to exceed WQC?**
			Aquatic Life (Acute) (µg/l)	Aquatic Life (Chronic)(µg/l)	Human Health (µg/l)	
Aluminum	1450 X 4.6 = 6,670	66.72	750	87	--	No
Ammonia	1300 X 2.1 = 2,730	27.31	12,060 [1]	1,810 [1]	--	No
Chlorine	7.5 X 4.0 = 30	0.3	13	7.5	--	No
Copper	130 X 3.1 = 403	4.03	4.8	3.1	--	Yes
Lead	157 X 4.8 = 753.6	7.54	210	8.1	--	No

Table 3.5.1: Reasonable Potential Evaluation (This analysis compares the projected maximum concentration (PMC) in the receiving stream with the applicable water quality criteria (WQC). When the PMC is lower than the WQC, there is no potential for the discharge to exceed the WQC. When the PMC is higher than the WQC, there is a potential for the discharge to exceed the WQC and permit limits are therefore needed.)						
Q = Flow, C = Concentration, $(QC)_u$ = Upstream data, $(QC)_d$ = Downstream data, $(QC)_e$ = Effluent data and $Q_d = Q_u + Q_e$. Q_e = 25,000 gpd = 1,041.6 gph ≈ 1,042 gph, $Q_{u,ac/ch}$ = 103,124 gph, $Q_{d,ac/ch}$ = 104,166 gph, $Q_{u,he}$ = 206,248 gph, and $Q_{d,he}$ = 207,290 gph						
Pollutants	PMC in effluent = Max. measured concentration X multiplier in Attachment 1	PMC in the waterbody $C_d = \frac{(QC)_u + (QC)_e}{Q_d}$	**Connecticut Water Quality Criteria (WQC) (Freshwater)**			**Is there potential to exceed WQC?**
			Aquatic Life (Acute) (µg/l)	Aquatic Life (Chronic)(µg/l)	Human Health (µg/l)	
Zinc	500 X 2.7 = 1,350	13.50	90	81	26,000	No
EPA's National recommended water quality aquatic life chronic criterion for iron is 1,000 µg/l						
Iron	6940 X 2.8 = 19,432	194.38	--	1,000		No
[1] The number above were converted from un-ionized ammonia (acute criteria = 35 µg/l, chronic criteria = 233 µg/l).						

The acute (35 µg/l) and chronic (233 µg/l) saltwater criteria for ammonia are for un-ionized ammonia, as defined in Section 22a-426-9 of the RCSA. To conduct a reasonable potential analysis, the un-ionized ammonia criteria are converted to total ammonia using the equation from EPA document, "Ambient Water Quality Criteria for Ammonia (saltwater) 1989 (EPA 440/5-88-004)" as follows:

$$\%UIA = \frac{100}{\left(1 + 10^{\left(Pka + 0.0324(298-T)+0.04159\frac{p}{T} - pH\right)}\right)}$$

$where\ P\ is\ pressure = 1ATM, and\ T\ is\ temperature\ in\ kelvin.$

PK_a = 9.245 + 0.116I (Model B regression equation – Whitfield, 1974[1])

$$I = \frac{19.9273S}{(1000 - 1.005109S)}\ where\ I\ is\ the\ molar\ ionic\ strength\ and\ S\ is\ the\ salinity.$$

[1] Whitfield, M., 1974. The hydrolysis of ammonia ions in sea water - a theoretical study. J. mar. biol. Ass. U.K., 54: 565-8

After converting the un-ionized ammonia criteria to total ammonia, it needs to be converted to total ammonia, as nitrogen. Therefore, total ammonia is converted to ammonia as nitrogen using the conversion factor of 0.822. The conversion is 14.00674 (molecular weight of nitrogen) divided by 14.00674 + 3(1.00794 (molecular weight of hydrogen)) = 0.822.

The acute and chronic water quality criteria for total ammonia (as nitrogen) are 1,810 µg/l and 12,060 µg/l, respectively using a temperature of 25°C, pH of 7.5 S.U. and salinity of 20 ppt.

Temp	pH	Salinity	Pressure	Molal Ionic Strength	pKa*	% Unionized:	Unionized WQC		Total NH3		Total NH3 as N	
(deg C)	(su)	(ppt)	(ATM)	(not valid if >0.85):	@ 25 deg C		Acute	Chronic	Acute	Chronic	Acute	Chronic
											mg/L	mg/L
25.0	7.5	20.0	1.0	0.407	9.292	1.588%	0.233	0.035	14.68	2.20	12.06	1.81

3.6 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 Parts 122.44(d)(1),122.44(d)(5), 125.84(e) and 125.94(i).

The reasonable potential analysis in Section 3.6 showed that water quality-based limits are needed for copper. Therefore, the limits for copper are calculated below.

Table 3.6.1: Permit Limits Calculation

Determine Waste Load Allocation

WLA = Waste load allocation, $(QC)_d$ = Downstream data, $(QC)_u$ = Upstream data, Qe = Discharge flow (see Table 3.6.1 for flow data).

	$WLA_{ac} = \frac{(QC)_d - (QC)_u}{Q_e}$	$WLA_{ch} = \frac{(QC)_d - (QC)_u}{Q_e}$	$WLA_{he} = \frac{(QC)_d - (QC)_u}{Q_e}$
Copper	479.84	309.90	---

Determine Long term averages and permit limits

LTA = Long term average, AML = Average monthly limit and MDL = Maximum daily limit

Pollutants	LTA_{acute} = WLA_{ac} X 99th percentile multiplier in Attachment 2	$LTA_{chronic}$ = WLA_{ch} X 99th percentile multiplier in Attachment 2	Governing LTA	AML = LTA X 95th percentile multiplier in Attachment 3	MDL = LTA X 99th percentile multiplier in Attachment 3
Copper	479.84 X 0.153 = 73.42	309.90 X 0.281 = 87.08	73.42	73.42 X 1.75 = 128.49	73.42 X 4.01 = 294.41

3.7 WHOLE EFFLUENT TOXICITY

The Permittee shall comply with effluent standards or prohibitions established by CWA § 307(a) and RCSA 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 Permittee's previous permit required semiannual acute toxicity testing using *Mysidopsis bahia* and *Cyprinodon variegatus* and annual chronic toxicity testing using *Mysidopsis bahia* and *Menidia beryllina*. The previous permit also had acute toxicity limits of LC_{50} > 20% and no chronic toxicity limit. During the last permit cycle, the Permittee had no exceedance of its acute toxicity limit. Based on the review of DMR data (May 2019 – April 2024) for acute toxicity tests, the permittee reported 100% survival of test organisms.

Reasonable Potential Analysis

Acute toxicity shall be assumed to occur at any discharge concentration which exceeds the LC50 (lethal concentration to 50% of the test organisms during a specific period) determined in an acute toxicity test multiplied by an application factor of 0.33. The projected maximum toxicity ("PMT") is determined by multiplying the maximum toxicity with the multiplier from Appendix C (based on 10 samples) and the dilution factor. A default coefficient of variation of 0.6 is assumed.

$$Acute\ toxic\ unit\ (TU_a) = \frac{100}{LC_{50}}$$

$$TU_a = \frac{100}{100} = 1TU_a$$

$PMT = 1TU_a\ (highest\ observed\ toxicity\ data)\ X\ 3.0\ (multiplier\ in\ Appendix\ A)\ X$

$0.01\ (dilution\ factor) = 0.03TU_a$

$0.03TU_a$ is lower than EPA's TSD recommended whole effluent toxicity criteria for protection against acute effects: $0.3TU_a$. Therefore, there is no reasonable potential of causing toxicity and a limit is not needed. However, based on anti-backsliding regulations, the previous limit of LC50 $\geq$ 20% is being maintained.

3.8 STORMWATER BENCHMARKS

The following benchmarks are applicable to the stormwater discharge DSN 01W-1.

Chemical Oxygen Demand (mg/l)	75.0
Total Copper (mg/l)	0.059
Total Oil and Grease (mg/l)	5.0
Sample pH (S.U.)	5.0 – 9.0
Total Suspended Solids (mg/l)	90.0
Total Phosphorus (mg/l)	0.40
Total Kjeldahl Nitrogen (mg/l)	2.30
Nitrate as Nitrogen (mg/l)	1.10
Total Lead (mg/l)	0.076
Total Zinc (mg/l)	0.160

Benchmark thresholds for chemical oxygen demand, total oil and grease, sample pH, total suspended solids, nitrate as nitrogen, total phosphorus, and total Kjeldahl nitrogen are based upon 80th percentiles of the cumulative relative frequency graphs developed from stormwater results reported under the General Permit for the Discharge of Stormwater Associated with Industrial Activity.

Benchmark thresholds for copper, lead, and zinc are based upon state Water Quality Standards and have been determined to be protective of water quality at typical dilution rates. However, regardless of the benchmarks, discharge monitoring data or other site-specific information may demonstrate that a discharge is not protective of water quality. In such a case, the Commissioner may require additional measures to reduce the discharge of pollutants for any discharge specifically found to be causing or contributing to an exceedance of Water Quality Standards in the receiving water. Provided the Permittee complies with all requirements of this Standard Monitoring Benchmarks subsection, exceedance of the benchmarks is not, in itself, a violation of this permit.

3.9 COMPARISON OF LIMITS

After preparing and evaluating applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit. Pollutants of concern that only require monitoring without limits are not included in the below table.

Parameters	Table 3.9.1: Comparison of Limits Based on Different Criteria	
	Water quality Limits Based on EPA/505/2-90-001 (mg/l) (See Table 3.7.1)	Previous permit limits
Acute toxicity	---	MDL = LC50 ≥ 20% MIL = LC50 > 6.7%
Total Residual Chlorine	---	AML = 7.6 µg/l MDL = 16.2 µg/l MIL = 24.3 µg/l
Copper, total	AML = 0.128 mg/l MDL = 0.294 mg/l	AML = 46 µg/l MDL = 77 µg/l MIL = 115 µg/l
pH, minimum	6.8	6.0
pH, maximum	8.5	9.0
Note: The highlighted numbers represent the most stringent effluent limits. AML: Average Monthly Limit MDL: Maximum Daily Limit MIL: Maximum Instantaneous Limit		

3.10 SAMPLING FREQUENCY, TYPE, AND REPORTING

RCSA Section 22a-430-3(j) prescribes quarterly acute toxicity monitoring. To comply with the acute toxicity monitoring requirement, semi-annual monitoring is required for both wet weather and dry weather discharges. This results in a total of four acute toxicity monitoring events per year.

Daily composite and grab sample average sample types are incorporated into the permit consistent with RCSA Sections 22a-430-3(j)(3) and 430-4(c)(20) respectively. Grab sample types are incorporated for the stormwater discharge.

3.11 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

POLLUTANTS	LIMIT	BASIS FOR LIMIT	MONITORING/ REPORTING FREQUENCY
DSN 001-D:			
Aluminum, total	Monitoring only requirement	No RP to cause exceedance of WQC & Case-by-case determination	Quarterly
Ammonia, total (as Nitrogen)	Monitoring only requirement	Dissolved oxygen TMDL	Quarterly
LC50 Static 48 Hr Acute Toxicity, *Mysidopsis bahia*	≥ 20%	Anti-backsliding regulations	Semiannually
LC50 Static 48 Hr Acute Toxicity *Cyprinodon variegatus*	≥ 20%	Anti-backsliding regulations	Semiannually
Chronic Aquatic Toxicity (Survival) *Mysidopsis bahia*	Monitoring only requirement	Case-by-case determination using BPJ	Annually
Chronic Aquatic Toxicity (Reproduction) *Mysidopsis bahia*	Monitoring only requirement	Case-by-case determination using BPJ	Annually

POLLUTANTS	LIMIT	BASIS FOR LIMIT	MONITORING/ REPORTING FREQUENCY
Chronic Aquatic Toxicity (Survival) *Cyprinodon variegatus*	Monitoring only requirement	Case-by-case determination using BPJ	Annually
Chronic Aquatic Toxicity (Growth) *Cyprinodon variegatus*	Monitoring only requirement	Case-by-case determination using BPJ	Annually
Biochemical Oxygen Demand (5-day)	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly
Chemical Oxygen Demand	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly
Chlorine, total residual	AML = 7.5 µg/l MDL = 16.2 µg/l MIL = 24.3 µg/l	Anti-backsliding regulations Anti-backsliding regulations Anti-backsliding regulations	Quarterly
Copper, total	AML = 0.046 mg/l MDL = 0.077 mg/l MIL = 0.115 mg/l	RP to cause exceedance of WQC & Anti-backsliding regulations	Quarterly
Enterococci	Monitoring only requirement	Statewide Bacteria TMDL	Quarterly
Extractable Total Petroleum Hydrocarbon	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly
Fecal coliform	Monitoring only requirement	Case-by-case determination using BPJ & Statewide Bacteria TMDL	Quarterly
Flow rate (Average daily)	25,000 gpd	Permitted discharge flow per application	Continuous/ Quarterly
Flow, Maximum during 24 hr. period	47,000 gpd	Permitted discharge flow per application	Continuous/ Quarterly
Iron, total	Monitoring only requirement	No RP to cause exceedance of WQC & case-by-case determination using BPJ	Quarterly
Lead, total	Monitoring only requirement	No RP to cause exceedance of WQC & case-by-case determination using BPJ	Quarterly
Kjeldahl Nitrogen, total	Monitoring only requirement	Dissolved oxygen TMDL	Quarterly
Nitrates, (as N)	Monitoring only requirement	Dissolved oxygen TMDL	Quarterly
Nitrites, (as N)	Monitoring only requirement	Dissolved oxygen TMDL	Quarterly
Nitrogen, total	Monitoring only requirement	Dissolved oxygen TMDL	Quarterly
Oil petroleum, total recoverable, total	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly
pH	6.8 – 8.5	WQC	Quarterly
Phosphorus, total	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly
Solids, total dissolved	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly

POLLUTANTS	LIMIT	BASIS FOR LIMIT	MONITORING/ REPORTING FREQUENCY
Solids, total suspended	MDL = 30 mg/l MIL = 30 mg/l	Case-by-case determination using BPJ	Quarterly
Surfactants (methylene blue active substances (MBAS))	Monitoring only requirement.	Case-by-case determination using BPJ	Quarterly
Temperature	95ºF	In-stream WQS with ZOI.	Continuous/ Quarterly
Total Organic Carbon	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly
Total Toxic Organics	Monitoring only requirement	Case-by-case determination using BPJ	Quarterly
Zinc, total	Monitoring only requirement	No RP to cause exceedance of WQC & Case-by-case determination using BPJ	Quarterly
DSN 001-W:			
Aluminum, total	Monitoring only requirement	Case-by-case determination using BPJ to obtain effluent data from wet weather discharges allowing an evaluation to be performed to determine the impacts on instream water quality	Quarterly
Ammonia, total (as Nitrogen)	Monitoring only requirement		Quarterly
LC50 Static 48 Hr Acute Toxicity, *Mysidopsis bahia*	Monitoring only requirement		Semiannually
LC50 Static 48 Hr Acute Toxicity *Cyprinodon variegatus*	Monitoring only requirement		Semiannually
Chemical Oxygen Demand	Monitoring only requirement		Quarterly
Chlorine, total residual	Monitoring only requirement		Quarterly
Copper, total	Monitoring only requirement		Quarterly
Enterococci	Monitoring only requirement		Quarterly
Extractable Total Petroleum Hydrocarbon	Monitoring only requirement		Quarterly
Fecal coliform	Monitoring only requirement		Quarterly
Flow rate (Average daily)	Monitoring only requirement		Quarterly
Flow, Maximum during 24 hr. period	Monitoring only requirement		Quarterly
Lead, total	Monitoring only requirement		Quarterly
Nitrate (as N)	Monitoring only requirement		Quarterly
Nitrite (as N)	Monitoring only requirement		Quarterly
pH	Monitoring only requirement		Quarterly

POLLUTANTS	LIMIT	BASIS FOR LIMIT	MONITORING/ REPORTING FREQUENCY
Oil and grease, total	Monitoring only requirement		Quarterly
Phosphorus	Monitoring only requirement		Quarterly
Total Kjeldahl Nitrogen	Monitoring only requirement		Quarterly
Nitrogen, total	Monitoring only requirement		Quarterly
Total Organic Carbon	Monitoring only requirement		Quarterly
Total Suspended Solids	Monitoring only requirement		Quarterly
Total Toxic Organics	Monitoring only requirement		Quarterly
Zinc, total	Monitoring only requirement		Quarterly
DSN 01W-1:			
Aluminum, total	Monitoring only requirement	Case-by-case determination using BPJ for the purposes of determining compliance with established industrial stormwater benchmarks pre and post SWPPP and control measures implementation.	Quarterly
Chemical Oxygen Demand	Monitoring only requirement		Quarterly
Copper, total	Monitoring only requirement		Quarterly
Iron, total	Monitoring only requirement		Quarterly
Lead, total	Monitoring only requirement		Quarterly
Nitrate (as N)	Monitoring only requirement		Quarterly
Oil and Grease	Monitoring only requirement		Quarterly
pH, Minimum	Monitoring only requirement		Quarterly
pH, Maximum	Monitoring only requirement		Quarterly
Phosphorus, total	Monitoring only requirement		Quarterly
Total Suspended Solids	Monitoring only requirement		Quarterly
Zinc, total	Monitoring only requirement		Quarterly

AML: Average Monthly Limit MDL: Maximum Daily Limit MIL: Maximum Instantaneous Limit
BPJ: Best Professional Judgment BPT: Best Practicable Control Technology Currently Available
RP: Reasonable potential WQC: Water quality criteria

3.12 OTHER PERMIT CONDITIONS

The permit contains special conditions related to the Permittee's industrial stormwater discharge from DSN 001-W and DSN 01W-1, including the requirement to implement control measures and develop and implement a stormwater pollution prevention plan ("SWPPP") to control discharges of stormwater consistent with 40 CFR 122.44(k) and CT DEEP's General Permit for the Discharge of Stormwater Associated with Industrial Activity. These stormwater requirements apply to the stormwater discharge at DSN 01W-1, prior to commingling with wastewater and discharging to the receiving water via DSN 001-W.

The permit also requires that the Permittee implement the Spill Prevention and Control Plan revised on February 7, 2024, and submitted to DEEP on May 22, 2024.

3.13 COMPLIANCE SCHEDULE

The permit has the following compliance schedules in accordance with 40 CFR Part 122.47 and RCSA Section 22a-430-4(l)(3).

- DEEP is requiring effluent monitoring for Per- and polyfluoroalkyl substances ("PFAS") in certain discharges to support further regulatory evaluations regarding the identification of contributing sources of such substances to the state's surface waters. The Permittee operates under SIC codes 3351 and 3316 and has been identified as a potential source of PFAS in accordance with DEEP's Industrial NPDES and Pretreatment PFAS Roadmap (NPDES and Pretreatment PFAS Roadmap (ct.gov)). In addition, several spills of PFAS containing material have occurred on the site. As such, this permit contains a compliance schedule requiring the Permittee to develop, submit for approval, and implement a PFAS monitoring and sampling plan to ensure data is representative and undergoes proper quality control and assurance. The industrial classification has been identified as a potential source of PFAS, and the effluent from DSN 001-D and DSN 001-W will be sampled to characterize the discharge.

- At the time of permit issuance, the Permittee is unable to separate its comingled discharges of stormwater and wastewater sources (NCCW, cooling tower blowdown, steam condensate from boiler operations, and fire suppression testing wastewaters). As such, the commingled discharge is regulated via DSN 001-W. DEEP is including a compliance schedule for the Permittee to evaluate and identify methods to ensure wastewater sources comply with DSN 001-D effluent limits during wet weather discharges. This includes evaluating (1) the treatment system's capacity to treat wastewater sources during wet weather discharges; (2) efficiency of the treatment system and options for segregating the commingled stormwater and wastewater sources; and (3) options for expanding the treatment system to ensure wastewater effluent limits are achieved consistently during both wet and dry weather discharges

- The previous permit pH limits were changed from 6.0 – 9.0 S.U. to 6.8 – 8.5 S.U. consistent with the water quality criteria for a class "SB" waterbody. A review of discharge monitoring data shows the Permittee may not be able to immediately comply with the proposed limits. As such, this permit contains a compliance schedule requiring the Permittee to evaluate alternate actions to achieve compliance with the proposed pH limits.

3.14 ANTIDEGRADATION

Implementation of the Antidegradation Policy follows a tiered approach pursuant to the federal regulations (40 CFR 131.12) and consistent with the Connecticut Antidegradation Policy included in the Connecticut Water Quality Standards (Section 22a-426-8(b-f) of the RCSA). 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, RCSA Sec.22a-426-8(a)(1).

The Tier I review, as documented in Section 3.3 – 3.11 of this fact sheet, involved the following:

- An evaluation of narrative and numeric water quality standards, criteria and associated policies;
- Consideration of 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.

Compliance with all the terms and conditions in the new permit would ensure that existing and designated uses of surface waters and the water quality necessary for their protection are maintained and preserved.

3.15 SECTION 316(a) EVALUATION

Section 316(a) of the Federal Water Pollution Control Act, U.S.C. § 1326(a) requires that the thermal component of any discharge assure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on the receiving water body. The segment of Norwalk Harbor where the discharge is located is classified as a class "SB" under the WQS. The applicable WQS for a class "SB" surface water is: "There shall be no changes from natural conditions that would impair any existing or designated uses assigned to this class and, no case exceed 83^{o}F, or in any case raise the temperature of surface water more than 4^{o}F. During the period including July, August, and September, the temperature of the receiving water shall not be raised more than 1.5^{o}F" (Section 4(C) of this permit renewal).

The Permittee discharges a heat load to the Norwalk Harbor comprising of NCCW, boiler blowdown, and steam condensate (DSN 001-D). The Permittee requested an alternative temperature limit from 83°F, the water quality criteria for temperature, and submitted a report titled "Final Report Thermal Plume Characterization Study" dated October 3, 2014, prepared by Ocean Surveys, Inc. The report demonstrated that King Industries' discharge did not have significant thermal influence beyond the allocated thermal ZOI (507,785 gpd = 21,158 gph), and was approved on June 5, 2018, during the processing of the previous permit. A review of DMR data from 2019 – 2024 showed a temperature range of 67.8 °F – 90.1°F.

Commissioner's Proposed Decision on Thermal Variance Request: RCSA Section 22a-430-4(q)(2)(A)(ii) allows the Commissioner to grant or deny variances for alternative effluent limits for thermal discharges which are made in accordance with the criteria and procedures specified in 40 CFR Part 125 Subpart H. The Applicant must demonstrate to the satisfaction of the Commissioner that thermal effluent limitations required under Section 301 or 306 of the Clean Water Act and WQS are more stringent than necessary to assure the protection and propagation of a balanced, indigenous, population of fish, shellfish, and wildlife in and on the waterbody receiving the discharge.

The 2014 thermal plume study referenced above is still representative of King Industries' thermal impact and the discharge temperature from 2019 – 2024; therefore, the temperature limit of 95°F in the previous permit has been carried forward.

3.16 ANTI-BACKSLIDING

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

3.17 VARIANCES AND WAIVERS

The Permittee requested alternative effluent limits for thermal discharges consistent with RCSA Section 22a-430-4(q)(2)(A)(ii), see Section 3.14

3.18 E-REPORTING

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

SECTION 4 SUMMARY OF NEW PERMIT CONDITIONS AND LIMITS FROM THE PREVIOUS PERMIT

The changes made to the permit are as noted below.

- MIL for pH was changed from 6.0 – 9.0 S.U. to 6.8 – 8.5 S.U. consistent with the water quality criteria for a class "SB" waterbody. A compliance schedule was added to the permit to give the permittee 12-months to comply with the new pH effluent limits.
- Stormwater monitoring requirements were added to DSN 01W-1 upstream of the treatment system for the purpose of determining compliance with stormwater benchmarks prior to commingling with wastewater sources.
- Stormwater control measures and SWPPP requirements are applicable to the stormwater discharge from DSN 01W-1, prior to commingling with the wet weather wastewater discharge of DSN 001-W.

- Total toxic organics monitoring was added for both the wet and dry weather discharges to characterize the presence and variability of organic compounds due to the number of spills that have occurred at the site.
- A special condition was added to require the Permittee to implement the Spill Prevention and Control Plan, revised on February 7, 2024, and submitted to DEEP on May 22, 2024.
- A compliance schedule was added to the permit to address the comingled discharge of wastewater with stormwater.
- A compliance schedule to conduct PFAS sampling was added to the permit due to the frequency of spills containing PFAS.

A review of the discharge monitoring reports from 2019 to 2024 showed that the Permittee should be able to meet the proposed effluent limits, with the exception of pH as described in the last paragraph of Section 3.13 of this fact sheet.

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. 202302698 PERMIT ID NO. CT0000841

Interested persons may obtain copies of the application from Michael Bourgoin, King Industries, Inc., 1 Science Road, Norwalk, CT 06852, mbourgoin@kingindustries.com, Phone No.: 203-866-5551.

The application is available for inspection by contacting Oluwatoyin Fakilede at 860-424-3025 or oluwatoyin.fakilede@ct.gov, at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106 5127 from 8:30-4:30, Monday through Friday.

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

5.2 PUBLIC COMMENT

Prior to making a final decision to approve or deny any application, the Commissioner shall consider written comments on the application from interested persons that are received within 30 days of this public notice. Written comments should be directed to Oluwatoyin Fakilede, Environmental Engineer 3, 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. CT0000841 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.

ATTACHMENT 1

Reasonable Potential Statistical Multiplier (Table 3-1 of TSD EPA/505/2-90-001)

Table 3-1. Reasonable Potential Multiplying Factors: 99% Confidence Level and 99% Probability Basis

Number of	Coefficient of Variation																			
Samples	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
1	1.6	2.5	3.9	6.0	9.0	13.2	18.9	26.5	36.2	48.3	63.3	81.4	102.8	128.0	157.1	190.3	227.8	269.9	316.7	368.3
2	1.4	2.0	2.9	4.0	5.5	7.4	9.8	12.7	16.1	20.2	24.9	30.3	36.3	43.0	50.4	58.4	67.2	76.6	86.7	97.5
3	1.4	1.9	2.5	3.3	4.4	5.6	7.2	8.9	11.0	13.4	16.0	19.0	22.2	25.7	29.4	33.5	37.7	42.3	47.0	52.0
4	1.3	1.7	2.3	2.9	3.8	4.7	5.9	7.2	8.7	10.3	12.2	14.2	16.3	18.6	21.0	23.6	26.3	29.1	32.1	35.1
5	1.3	1.7	2.1	2.7	3.4	4.2	5.1	6.2	7.3	8.6	10.0	11.5	13.1	14.8	16.6	18.4	20.4	22.4	24.5	26.6
6	1.3	1.6	2.0	2.5	3.1	3.8	4.6	5.5	6.4	7.5	8.6	9.8	11.1	12.4	13.8	15.3	16.8	18.3	19.9	21.5
7	1.3	1.6	2.0	2.4	2.9	3.6	4.2	5.0	5.8	6.7	7.7	8.7	9.7	10.8	12.0	13.1	14.4	15.6	16.9	18.2
8	1.2	1.5	1.9	2.3	2.8	3.3	3.9	4.6	5.3	6.1	6.9	7.8	8.7	9.6	10.6	11.6	12.6	13.6	14.7	15.8
9	1.2	1.5	1.8	2.2	2.7	3.2	3.7	4.3	5.0	5.7	6.4	7.1	7.9	8.7	9.6	10.4	11.3	12.2	13.1	14.0
10	1.2	1.5	1.8	2.2	2.6	3.0	3.5	4.1	4.7	5.3	5.9	6.6	7.3	8.0	8.8	9.5	10.3	11.0	11.8	12.6
11	1.2	1.5	1.8	2.1	2.5	2.9	3.4	3.9	4.4	5.0	5.6	6.2	6.8	7.4	8.1	8.8	9.4	10.1	10.8	11.5
12	1.2	1.4	1.7	2.0	2.4	2.8	3.2	3.7	4.2	4.7	5.2	5.8	6.4	7.0	7.5	8.1	8.8	9.4	10.0	10.6
13	1.2	1.4	1.7	2.0	2.3	2.7	3.1	3.6	4.0	4.5	5.0	5.5	6.0	6.5	7.1	7.6	8.2	8.7	9.3	9.9
14	1.2	1.4	1.7	2.0	2.3	2.6	3.0	3.4	3.9	4.3	4.8	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2
15	1.2	1.4	1.6	1.9	2.2	2.6	2.9	3.3	3.7	4.1	4.6	5.0	5.4	5.9	6.4	6.8	7.3	7.7	8.2	8.7
16	1.2	1.4	1.6	1.9	2.2	2.5	2.9	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.1	6.5	6.9	7.3	7.8	8.2
17	1.2	1.4	1.6	1.9	2.1	2.5	2.8	3.1	3.5	3.8	4.2	4.6	5.0	5.4	5.8	6.2	6.6	7.0	7.4	7.8
18	1.2	1.4	1.6	1.8	2.1	2.4	2.7	3.0	3.4	3.7	4.1	4.4	4.8	5.2	5.6	5.9	6.3	6.7	7.0	7.4
19	1.2	1.4	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.6	4.0	4.3	4.6	5.0	5.3	5.7	6.0	6.4	6.7	7.1
20	1.2	1.3	1.6	1.8	2.0	2.3	2.6	2.9	3.2	3.5	3.8	4.2	4.5	4.8	5.2	5.5	5.8	6.1	6.5	6.8

ATTACHMENT 2

WLA Statistical Multipliers from (Table 5-1 of TSD EPA/505/2-90-001)

Table 5-1. Back Calculations of Long-Term Average

CV	WLA Multipliers $e^{[0.5\sigma^2 - z\sigma]}$	
	95th Percentile	99th Percentile
0.1	0.853	0.797
0.2	0.736	0.643
0.3	0.644	0.527
0.4	0.571	0.440
0.5	0.514	0.373
0.6	0.468	0.321
0.7	0.432	0.281
0.8	0.403	0.249
0.9	0.379	0.224
1.0	0.360	0.204
1.1	0.344	0.187
1.2	0.330	0.174
1.3	0.319	0.162
1.4	0.310	0.153
1.5	0.302	0.144
1.6	0.296	0.137
1.7	0.290	0.131
1.8	0.285	0.126
1.9	0.281	0.121
2.0	0.277	0.117

Acute

$$LTA_{a,c} = WLA_{a,c} * e^{[0.5\sigma^2 - z\sigma]}$$

where $\sigma^2 = ln[CV^2 + 1]$,
z = 1.645 for 95th percentile occurrence probability, and
z = 2.326 for 99th percentile occurrence probability

Chronic
(4-day average)

$$LTA_c = WLA_c * e^{[0.5\sigma_4^2 - z\sigma_4]}$$

where $\sigma_4^2 = ln[CV^2 / 4 + 1]$,
z = 1.645 for 95th percentile occurrence probability, and
z = 2.326 for 99th percentile occurrence probability

CV	WLA Multipliers $e^{[0.5\sigma_4^2 - z\sigma_4]}$	
	95th Percentile	99th Percentile
0.1	0.922	0.891
0.2	0.853	0.797
0.3	0.791	0.715
0.4	0.736	0.643
0.5	0.687	0.581
0.6	0.644	0.527
0.7	0.606	0.481
0.8	0.571	0.440
0.9	0.541	0.404
1.0	0.514	0.373
1.1	0.490	0.345
1.2	0.468	0.321
1.3	0.449	0.300
1.4	0.432	0.281
1.5	0.417	0.264
1.6	0.403	0.249
1.7	0.390	0.236
1.8	0.379	0.224
1.9	0.369	0.214
2.0	0.360	0.204

ATTACHMENT 3

LTA Statistical Multipliers from (Table 5-2 of TSD EPA/505/2-90-001)

Table 5-2. Calculation of Permit Limits

CV	LTA multipliers $e^{[z\sigma - 0.5\sigma^2]}$ 95th Percentile	LTA multipliers $e^{[z\sigma - 0.5\sigma^2]}$ 99th Percentile
0.1	1.17	1.25
0.2	1.36	1.55
0.3	1.55	1.90
0.4	1.75	2.27
0.5	1.95	2.68
0.6	2.13	3.11
0.7	2.31	3.56
0.8	2.48	4.01
0.9	2.64	4.46
1.0	2.78	4.90
1.1	2.91	5.34
1.2	3.03	5.76
1.3	3.13	6.17
1.4	3.23	6.56
1.5	3.31	6.93
1.6	3.38	7.29
1.7	3.45	7.63
1.8	3.51	7.95
1.9	3.56	8.26
2.0	3.60	8.55

Maximum Daily Limit

$MDL = LTA \cdot e^{[z\sigma - 0.5\sigma^2]}$

where $\sigma^2 = ln[CV^2 + 1]$,
z = 1.645 for 95th percentile occurrence probability, and
z = 2.326 for 99th percentile occurrence probability

Average Monthly Limit

$AML = LTA \cdot e^{[z\sigma_n - 0.5\sigma_n^2]}$

where $\sigma_n^2 = ln[CV^2/n + 1]$,
z = 1.645 for 95th percentile,
z = 2.326 for 99th percentile, and
n = number of samples/month

CV	LTA Multipliers $e^{[z\sigma_n - 0.5\sigma_n^2]}$ 95th Percentile n=1	n=2	n=4	n=10	n=30	99th Percentile n=1	n=2	n=4	n=10	n=30
0.1	1.17	1.12	1.06	1.06	1.03	1.25	1.18	1.12	1.08	1.04
0.2	1.36	1.25	1.17	1.12	1.06	1.55	1.37	1.25	1.16	1.09
0.3	1.55	1.38	1.26	1.18	1.09	1.90	1.59	1.40	1.24	1.13
0.4	1.75	1.52	1.36	1.25	1.12	2.27	1.83	1.55	1.33	1.18
0.5	1.95	1.66	1.45	1.31	1.16	2.68	2.09	1.72	1.42	1.23
0.6	2.13	1.80	1.55	1.36	1.19	3.11	2.37	1.90	1.52	1.28
0.7	2.31	1.94	1.65	1.45	1.22	3.56	2.66	2.08	1.62	1.33
0.8	2.48	2.07	1.75	1.52	1.26	4.01	2.96	2.27	1.73	1.39
0.9	2.64	2.20	1.85	1.59	1.29	4.46	3.28	2.48	1.84	1.44
1.0	2.78	2.33	1.95	1.66	1.33	4.90	3.59	2.68	1.96	1.50
1.1	2.91	2.45	2.04	1.73	1.36	5.34	3.91	2.90	2.07	1.56
1.2	3.03	2.56	2.13	1.80	1.39	5.76	4.23	3.11	2.19	1.62
1.3	3.13	2.67	2.23	1.87	1.43	6.17	4.55	3.34	2.32	1.68
1.4	3.23	2.77	2.31	1.94	1.47	6.56	4.86	3.56	2.45	1.74
1.5	3.31	2.86	2.40	2.00	1.50	6.93	5.17	3.78	2.58	1.80
1.6	3.38	2.95	2.48	2.07	1.54	7.29	5.47	4.01	2.71	1.87
1.7	3.45	3.03	2.56	2.14	1.57	7.63	5.77	4.23	2.84	1.93
1.8	3.51	3.10	2.64	2.20	1.61	7.95	6.06	4.46	2.98	2.00
1.9	3.56	3.17	2.71	2.27	1.64	8.26	6.34	4.68	3.12	2.07
2.0	3.60	3.23	2.78	2.33	1.68	8.55	6.61	4.90	3.26	2.14

NOTICE OF TENTATIVE DECISION
INTENT TO RENEW A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR THE FOLLOWING DISCHARGES INTO THE WATERS OF THE STATE OF CONNECTICUT

1.0 TENTATIVE DECISION

The Commissioner of Energy and Environmental Protection ("the Commissioner") hereby gives notice of a tentative decision to renew a permit based on an application submitted by **King Industries, Inc.** ("the Applicant") under Section 22a-430 of the Connecticut General Statutes for a permit to discharge into the waters of the state.

In accordance with applicable federal and state law, the Commissioner has made a tentative decision that continuance of the existing system to treat the discharge will protect the waters of the state from pollution; therefore, the Commissioner proposes to renew a permit for the discharge to the Norwalk Harbor.

The proposed permit, if issued by the Commissioner, will require that all wastewaters be treated to meet the applicable effluent limitations and periodic monitoring to monitor compliance status.

2.0 APPLICANT'S PROPOSAL

Dry Weather Condition

King Industries, Inc. proposes to discharge a maximum of 47,000 gallons per day of tank farm storm water, cooling tower blowdown, steam condensate from boilers, and fire sprinkler testing wastewaters to the Norwalk River from operations at their organic chemical manufacturing facility.

Wet Weather Condition

During periods of wet weather, King Industries, Inc. proposes to discharge stormwater runoff commingled with wastewater sources to the Norwalk River.

The mailing address of the Applicant is: King Industries, Inc., Science Road, Norwalk, CT 06852.

The proposed activity takes place at: Science Road, Norwalk, CT 06852.

The proposed activity is within the coastal area as defined in C.G.S. Section 22a-94. Pursuant to C.G.S. Section 22a-98, the Applicant must demonstrate that the activities are consistent with all applicable goals and policies in C.G.S. Section 22a-92, and that such activities incorporate all reasonable measures mitigating any adverse impacts on coastal resources and future water-dependent development activities.

3.0 REGULATORY CONDITIONS

Wastewater will undergo sedimentation, oil-water separation, and pH adjustment (when necessary).

Effluent Limitations

This permit contains effluent limitations consistent with Best Available Technology based on a Case-by-case determination using the criteria of Best Professional Judgment and which will meet Water Quality Standards when the Permittee complies with all permit requirements.

In accordance with Section 22a-430-4(l) of the Regulations of Connecticut State Agencies the permit renewal contains effluent limitations for the following types of toxic substances: heavy metals. Refer to the fact sheet for additional information.

Compliance Schedule

This permit contains the following enforceable compliance schedules which require the Applicant to:

1. Submit a per – and polyfluoroalkyl substances ("PFAS") sampling plan for the Commissioner's review and approval, and conduct PFAS sampling for screening purposes;

2. Evaluate the comingled stormwater and wastewater discharges to ensure wastewater sources are complying with dry-weather discharges limits during periods of wet-weather; and

3. Comply with new pH effluent limitations in 12 months.

4.0 COMMISSIONER'S AUTHORITY

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

5.0 INFORMATION REQUESTS

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

APPLICATION NO. 202302698 PERMIT ID NO. CT0000841

Interested persons may obtain copies of the application from Michael Bourgoin, King Industries, Inc., Science Road, Norwalk, CT 06852, (203) 866-5551 or mbourgoin@kingindustries.com.

The application is available for inspection by contacting Oluwatoyin Fakilede at 860-424-3025 or oluwatoyin.fakilede@ct.gov, at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106-5127 from 8:30 - 4:30, Monday through Friday.

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

6.0 PUBLIC COMMENT

Prior to making a final decision to approve or deny any application, the Commissioner shall consider written comments on the application from interested persons that are received within 30 days of this public notice. Written comments should be directed to Oluwatoyin Fakilede, Environmental Engineer 3, 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. CT0000841 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.

7.0 PETITION FOR 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 30 days of electronic submittal. Additional information can be found at www.ct.gov/deep/adjudications.

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

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

Dated: April 23, 2025