

National Pollutant Discharge Elimination System Permit

issued to

Permittee:

Sumitomo Bakelite North America, Inc. 24 Mill Street Manchester, CT 06042

Permit ID: CT0003379

Receiving Stream: Lydall Brook

Location Address:

Sumitomo Bakelite North America, Inc. 24 Mill Street Manchester, CT 06042

Effective Date: [1st of the month following signing]

Issuance Date: [date of signature]

Stream Segment ID: CT4500-12_02

<u>Permit Expires:</u> [5yrs after effective date]

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) Sumitomo Bakelite North America, 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.

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 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.

"IC" means "Inhibition Concentration".

" IC_{25} " means a point estimate of the toxicant concentration that would cause a twentyfive (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, 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.

"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 this permit, means that sampling is required in the months of April and October.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner has issued a final determination and found that continuation of the existing discharge will not cause pollution of the waters of the state. The Commissioner's decision is based on Application No. 202007878 for permit reissuance received on June 25, 2020, 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 No. 202007878, received by the Commissioner on June 25, 2020, 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 hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner's authorized agent for the discharges and/or activities authorized by, or associated with, this permit.

(D) 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.

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 85 °F, or in any case, raise the temperature of the receiving stream by more than 4 °F.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- (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.

	TABLE A									
Discharge Serial Number: 001-1						Monitoring Location:	1 (External Outfall	l)		
Wastewater Description: Non-contact co	oling water	from the hy	draulic press	es, single scre	ew extruder barr	els, roll mills, chillers and	mixer drive			
Monitoring Location Description: Disch	arge pipe at	riverbank n	ear southeas	t corner of the	e facility	Outfall Location: Latit	ude (41° 47' 46")	and Longitude (-	72° 31' 09")	
Discharge is to: Lydall Brook	Allocated	Zone of Inf	luence (ZO	I): 22,646 gph	1	In Stream Waste Conc	entration (IWC):	42.4%		
	FLOW/TIME BASED MO		NITORING	INSTANI	TANEOUS MON	MINIMIM				
PARAMETER	DMR CODE	UNITS	Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous Limit or Required Range	Sample/ Reporting Frequency ¹	Sample Type or Measurement to be Reported	LEVEL ² (µg/l)
Chlorine, Total Residual	50060	μg/l	NA	NA	NR	NA	6.5	Quarterly	Grab	20.0
Copper, Total	01042	µg/l	4.9	11.86	Quarterly	Daily Composite	17.79	Quarterly	Grab	3.0
Flow Rate (Average Daily) ³	00056	Gpd	400,000	NA	Continuous	Daily Flow	NA	NR	NA	
Flow, Maximum during 24 hr period ³	50047	Gpd	NA	450,000	Continuous	Daily Flow	NA	NR	NA	
Lead, Total	01051	µg/l	0.79	1.59	Quarterly	Daily Composite	2.38	NR	Grab	1.0
Nitrate (as N)	00620	mg/l	NA		Quarterly	Daily Composite	NA	NR	NA	
Nitrite (as N)	00615	mg/l	NA		Quarterly	Daily Composite	NA	NR	NA	
Kjeldahl Nitrogen, Total (as N)	00625	mg/L			Quarterly	Daily Composite	NA	NR	NA	
Nitrogen, Total [See Remark 5]	00600	mg/l			Quarterly	Daily Composite	NA	NR	NA	
Oil and grease, Total	00556	mg/l	NA	NA	NR	NA	5.0	Quarterly	Grab	
pH, Minimum	61942	S.U.	NA	NA	NR	NA	6.8	Quarterly	Grab	
pH, Maximum	61941	S.U.	NA	NA	NR	NA	8.5	Quarterly	Grab	
Solids, Total Suspended	00530	mg/l	20	30	Quarterly	Daily Composite	45	NR	Grab	
Temperature	00011	°F	NA	NA	NR	NA	85	Quarterly	Grab	
Total Volatile Organics ⁴	78237	μg/l	NA	NA	NR	NA		Semiannually	Grab	
Zinc, Total	01092	µg/l			Quarterly	Daily 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 frequency' is morthly, 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 For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each sampling quarter.

⁴ See Section 6(H).

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; µg/L means micrograms 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. pH shall be reported to 0.1 SU. All other values shall be reported to the level of precision/accuracy reported by the laboratory.

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.

			ТАВ	LE B – ACU	TE TOXICITY	MONITORING				
Discharge Serial Number: DSN 001-A	Т					Monitoring Locations: T = Acute toxicity effluent results and chemical analyses				
Wastewater Description: Non-contact	cooling wate	er from the hydra	ulic presses	s, single screw	v extruder barrel	s, roll mills, chillers a	and mixer drive		-	
Monitoring Location Description: Dis	scharge pipe	at riverbank near	r southeast	corner of the	facility	Outfall Location: L	atitude (41° 47' 46	6") and Longitude	e (- 72° 31' 09")	
Discharge is to: Lydall Brook	Allocated Z	llocated Zone of Influence (ZOI): 22,646 gph				In-stream Waste Co	oncentration (IW	C – 1 hour): 42.4	4%	
	NET	NFT		FLOW/TIMI	E BASED MON	NITORING INSTANTANEOUS MONITORI		ONITORING	MINIMUM	
PARAMETER	DMR CODE	UNITS	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	LEVEL ⁴ (µg/L)
Whole Effluent Toxicity (WET)										
Aquatic toxicity, Daphnia pulex ³ NOAEL = 100%	TDA3D	%	NA	≥ 90%	Quarterly	Daily Composite	≥90%	NR	NA	
Aquatic toxicity, Pimephales promelas ³ NOAEL = 100%	TDA6C	%	NA	≥90%	Quarterly	Daily Composite	≥90%	NR	NA	
Chemical Analyses Required with Acut	e Whole Eff	luent Toxicity M	onitoring -	- See Section	7(A)(6) for Acu	te Testing ⁶				
Date of Acute WET Chemistry Sample Collection ⁷	51883	YYYYMMDD	NA		Quarterly	Calculated	NA	NR	NA	
Alkalinity	00410	mg/L	NA		Quarterly	Daily Composite	NA	NR	NA	
Chlorine, Total Residual	50060	μg/L	NA		Quarterly	Daily Composite	NA	NR	NA	20.0
Copper, Dissolved	01040	μg/L	NA		Quarterly	Daily Composite	NA	NR	NA	3.0
Copper, Total	01042	μg/L	NA		Quarterly	Daily Composite	NA	NR	NA	3.0
Dissolved Oxygen	00300	mg/L	NA		Quarterly	Daily Composite	NA	NR	NA	
Hardness, Total	00900	mg/L	NA		Quarterly	Daily Composite	NA	NR	NA	
Lead, Dissolved	01049	μg/L	NA		Quarterly	Daily Composite	NA	NR	NA	1.0
Lead, Total	01051	μg/L	NA		Quarterly	Daily Composite	NA	NR	NA	1.0
Nitrogen, Ammonia (total as N)	00610	mg/L	NA		Quarterly	Daily Composite	NA	NR	NA	
Nitrogen, Kjeldahl (total as N)	00625	mg/L	NA		Quarterly	Daily Composite	NA	NR	NA	
Nitrogen, Nitrate (total as N)	00620	mg/L	NA		Quarterly	Daily Composite	NA	NR	NA	
Nitrogen, Nitrite (total as N)	00615	mg/L	NA		Quarterly	Daily Composite	NA	NR	NA	
Nitrogen, Total (as N) ⁸	00600	mg/L	NA		Quarterly	Calculation	NA	NR	NA	
pH	00400	SU	NA		Quarterly	Daily Composite	NA	NR	NA	

Specific Conductance	51409	uMhos	NA	 Quarterly	Daily Composite	NA	NR	NA	
Temperature	00011	Deg. F.	NA	 Quarterly	Daily Composite	NA	NR	NA	
Total Suspended Solids	00530	mg/L	NA	 Quarterly	Daily Composite	NA	NR	NA	
Zinc, Dissolved	01090	μg/L	NA	 Quarterly	Daily Composite	NA	NR	NA	10.0
Zinc, Total	01092	μg/L	NA	 Quarterly	Daily 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 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 8.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 LC₅₀ 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. Results shall also be included on the ATMR and submitted consistent with Section 8(B) of this permit.

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 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:

- 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.
- 3. Analyses that indicate that a parameter was not detected or that was detected less than the noted ML shall be reported in accordance with Section 6(E).

TABLE C – CHRONIC TOXICITY MONITORING											
Discharge Serial Number: DSN 001-C	Γ						Monitoring Loca Y – Chronic toxic O – Day 1 chronic P – Day 3 chronic Q – Day 5 chronic R – Day 1 upstrea S – Day 3 upstrea T – Day 5 upstrea	tions: city effluent ro c toxicity che c toxicity che c toxicity che un monitoring m monitoring un monitoring	esults mical analyses mical analyses mical analyses g g g		
Wastewater Description: Non-contact of	cooling wate	er from the hydrau	lic presses, si	ngle screw	extruder barrels,	roll mills, chillers	and mixer drive				
Monitoring Location Description: Dis	charge pipe	at riverbank near	southeast corr	ner of the fa	cility		Outfall Location	: Latitude (4)	1° 47' 46") and I	ongitude (-	72° 31' 09")
Discharge is to: Lydall Brook		Allocated Zone o	f Influence (ZOI): 22,64	46 gph		In-stream Waste	Concentrat	ion (IWC – 1 ho	our): 42.4%	-
	NET		FLO)W/TIME	BASED MONI	TORING	INSTANTAN	NEOUS MO	NITORING	MINIMU	MONITORI
PARAMETER DMR CODE	UNITS	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	M LEVEL ⁵ (μg/L)	NG LOCATION	
Whole Effluent Toxicity (WET)											
Chronic Aquatic Toxicity (Survival) ⁶ Ceriodaphnia dubia, C-NOEC	ТОРЗВ	%	NA		Annually	Daily Composite	NA	NR	NA		Y
Chronic Aquatic Toxicity (Reproduction) ⁶ <i>Ceriodaphnia dubia</i> , C-NOEC	TPP3B	%	NA		Annually	Daily Composite	NA	NR	NA		Y
Chronic Aquatic Toxicity (Survival) ⁶ Pimephales promelas, C-NOEC	TOP6C	%	NA		Annually	Daily Composite	NA	NR	NA		Y
Chronic Aquatic Toxicity (Growth) ⁶ Pimephales promelas, C-NOEC	TPP6C	%	NA		Annually	Daily Composite	NA	NR	NA		Y
Chemical Analyses Required with Chro	nic Whole I	Effluent Toxicity M	Aonitoring –	See Section	n 7(B)(7) for Ch	ronic Testing ⁷					
Date of Chronic WET Chemistry Sample Collection ⁸	51883	YYYYMMDD	NA		Annually	Calculated	NA	NR	NA		O, P, Q; R, S, T
Alkalinity	00410	mg/L	NA		Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Chlorine, Total Residual	50060	mg/L	NA		Annually	Daily Composite	NA	NR	NA	20.0	O, P, Q; R, S, T
Copper, Dissolved	01040	μg/L	NA		Annually	Daily Composite	NA	NR	NA	3.0	O, P, Q; R, S, T
Copper, Total	01042	μg/L	NA		Annually	Daily Composite	NA	NR	NA	3.0	O, P, Q; R, S, T

Dissolved Oxygen	00300	mg/L	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Hardness, Total	00900	mg/L	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Lead, Dissolved	01049	μg/L	NA	 Annually	Daily Composite	NA	NR	NA	1.0	O, P, Q; R, S, T
Lead, Total	01051	μg/L	NA	 Annually	Daily Composite	NA	NR	NA	1.0	O, P, Q; R, S, T
Nitrogen, Ammonia (total as N)	00610	mg/L	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Nitrogen, Kjeldahl (total as N)	00625	mg/L	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Nitrogen, Nitrate (total as N)	00620	mg/L	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Nitrogen, Nitrite (total as N)	00615	mg/L	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Nitrogen, Total (as N) ⁹	00600	mg/L	NA	 Annually	Calculation	NA	NR	NA		O, P, Q; R, S, T
рН	00400	SU	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Phosphorus, Total	00665	mg/L	NA	 Annually	Daily Composite	NA	NR	NA	100.0	O, P, Q; R, S, T
Specific Conductance	51409	uMhos	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Temperature	00011	Deg. F.	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Total Suspended Solids	00530	mg/L	NA	 Annually	Daily Composite	NA	NR	NA		O, P, Q; R, S, T
Zinc, Dissolved	01090	μg/L	NA	 Annually	Daily Composite	NA	NR	NA	10.0	O, P, Q; R, S, T
Zinc, Total	01092	μg/L	NA	 Annually	Daily Composite	NA	NR	NA	10.0	O, P, Q; R, S, T

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 8(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.

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:

- 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).

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.
- (B) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136, unless otherwise specified.
- (C) 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 C. 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 C. 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.
- (D) 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.
- (E) 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.
- (F) 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.
- (G) 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.
- (H) Total volatile organics shall be analyzed using EPA Method 624.1. Analyses shall be conducted for all the analytes listed under EPA Method 624.1.

SECTION 7: AQUATIC TOXICITY TESTING

(A) **ACUTE TESTING REQUIREMENTS.** The Permittee shall conduct acute aquatic toxicity testing for DSN 001-1 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 36 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 *Daphnia pulex* (less than 24-hours old).
 - (b) For 48-hours utilizing larval *Pimephales promelas* (1-14 days old with no more than 24-hours range in age).
- (4) **ACUTE ENDPOINT:** Survival at 48-hours measured by NOAEL.

(5) **TEST CONDITIONS:**

- (a) Tests for acute aquatic toxicity shall be conducted as prescribed for static non-renewal tests.
- (b) Pass/fail and single concentration tests shall be conducted at a specified Critical Test Concentration ("CTC") equal to the acute toxicity effluent limit, or 100% in the case of monitoring only conditions, as prescribed in Section 22a-430-3(j)(7)(A)(i) of the RSCA. Five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be employed in the test. Three replicate control test chambers containing dilution water only shall also be employed in the test.
- (c) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (\pm 5 mg/L) as CaCO₃ shall be used as dilution water.
- (d) Organisms shall not be fed during the tests.
- (e) Copper nitrate shall be used as the reference toxicant.
- (f) 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.

- (g) Specific conductance, pH, alkalinity, hardness, and total residual chlorine shall be measured in the undiluted effluent sample and in the dilution (control) water at the beginning of the test and at test termination. If total residual chlorine is not detected at test initiation, it does not need to be measured at test termination.
- (6) **CHEMICAL ANALYSIS:** All effluent samples used in the acute toxicity test shall, including salinity adjusted effluent samples, if salinity adjustment is required, shall at a minimum be analyzed and results reported in accordance with the provisions listed in Section 6(A) and Section 5 Table B for the parameters identified on Section 5 Table B of the 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 9(C)
- (8) **TEST COMPLIANCE:** Compliance with limits on Acute Toxicity shall be determined as follows:
 - (a) For limits expressed as an NOAEL value, compliance shall be demonstrated when the results of a valid single concentration or pass/fail acute aquatic toxicity test indicates there is greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at the specified CTC.
- (9) **REPORTING:** Results of acute toxicity monitoring shall be documented on an ATMR and reported to the Commissioner by the last day of the month following the month in which samples are collected in accordance with Section 8(B) of this permit. The report shall include the items identified in Section 8(B) 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 001-1 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 Freshwater Organisms*, EPA-821-R-02-013, 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 seven days utilizing neonatal *Ceriodaphnia dubia* (less 24-hours old)
 - (b) For seven days utilizing newly-hatched *Pimephales promelas* (less 24-hours old).

(4) **CHRONIC ENDPOINTS:**

- (a) *Ceriodaphnia dubia:* Survival and Reproduction
- (b) *Pimephales promelas:* Survival and Growth
- (5) **DILUTION WATER:** Lydall Brook 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 Lydall Brook 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) and laboratory control water.
- (d) Dissolved oxygen, pH, and temperature shall be measured in each sample of effluent and the Lydall Brook water sample prior to and immediately following renewal of the test solutions.
- (e) The Permittee shall record and submit the stream flow of the Hockanum River in cfs (cubic feet per second) as measured at the USGS gage station 01192500 located in East Hartford, Connecticut.
- (f) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/l (±5 mg/l) as CaCO₃ prepared as described in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013) shall be used as laboratory control water.

- (7) **CHEMICAL ANALYSIS:** Chemical analysis for the parameters identified in Section 5 Table C shall be conducted on an undiluted aliquot of each effluent sample and each sample of Lydall Brook used in the test. The chemical analysis shall be analyzed and results reported in accordance with the provisions listed in Section 5 Table 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 documented on an ATMR and submitted to the Commissioner by the last day of the month following the month in which samples are collected in accordance with Section 8(B) of this permit. The report shall include the items identified in Section 8(B) of this permit. Endpoints to be reported are: 48-hour LC₅₀ (survival), 7-day LC₅₀ (survival), 7-day C-NOEC (survival), 7-day C-LOEC (survival), 7-day C-LOEC (growth), 7-day C-LOEC (growth), 7-day C-NOEC (gr

SECTION 8: REPORTING REQUIREMENTS

The results of chemical analyses and any aquatic toxicity test required by this permit shall be (A) submitted electronically using NetDMR. Monitoring results shall be reported at the monitoring frequency specified in this permit. Any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136, or another method required for an industry-specific waste stream under 40 CFR subchapter N, or other methods approved by the Commissioner, shall also be included on the DMR, or as an attachment, if necessary, and the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit. All aquatic toxicity reports shall also be included as an attachment to the DMR. A report shall also be included with the DMR which includes a detailed explanation of any violations of the limitations specified. DMRs, attachments, and reports, shall continue to be submitted electronically in accordance with Section 8(E) 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-02-013, including complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, LC₅₀ 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: <u>DEEP.IndustrialWETReports@ct.gov</u>. The ATMR required by Sections, 5 and 7 shall be received at this address by the last day of the month following the month in which the samples are collected.
- (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". 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, 6, and 9 of this permit. All monitoring and monitoring records required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Commissioner as an electronic attachment to the DMR in NetDMR. The Permittee shall also electronically file any written report of noncompliance described in Section 9 of this permit as an attachment in NetDMR. DMRs shall be submitted electronically to the Commissioner no later than the last day of the month following the completed reporting period. NetDMR is accessed from: http://www.epa.gov/netdmr.

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

- (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 whole effluent toxicity 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.
- Notifications shall be submitted via the Commissioner's online Noncompliance Notification Form: <u>https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-</u> wastewater/compliance-assistance/notification-requirements.
- (3) Within five days of any notification of noncompliance in accordance with Sections 9(A)(1)(a) through 9(A)(1)(f) of this permit, the Permittee shall submit a follow-up report using the Commissioner's online Noncompliance Follow-up Report Form: <u>https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements.</u>

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

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

- (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. Within 30 days of the exceedance or invalid test, the results and the associated ATMR shall be reported in accordance with Sections 5 and 8(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 10: 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 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 using sufficiently sensitive test methods. PFAS analyses shall be performed using the methods approved by EPA pursuant to 40 CFR 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 (see https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas). The sampling plan must indicate at least two sampling events of the prescribed discharge. 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) 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.
- (C) <u>Dates</u>. 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 (3) 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.
- (D) <u>Notification of noncompliance</u>. 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 unless specifically so stated by the Commissioner in writing.
- (E) <u>Notice to Commissioner of changes</u>. 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.

(F) <u>Submission of documents</u>. 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 "CT0003379"

This permit is hereby issued on

JP/ OF

Jennifer Perry, P.E. Bureau Chief

National Pollutant Discharge Elimination System Factsheet

SECTION 1 FACILITY SUMMARY

APPLICANT	Sumitomo Bakelite North America, Inc.
PERMIT NO.	СТ0003379
APPLICATION NO.	202007878
DATE APPLICATION RECEIVED	June 25, 2020
LOCATION ADDRESS	24 Mill Street, Manchester, CT 06042
FACILITY CONTACT	Alisa Werst Office Phone: (860) 533-6635 Email: AWerst@sbna-inc.com
MAILING ADDRESS	24 Mill Street, Manchester, CT 06042
DMR CONTACT	Alisa Werst Office Phone: (860) 533-6635 Email: AWerst@sbna-inc.com
SECRETARY OF STATE BUSINESS ID	0721216
PERMIT TERM	5 Years
PERMIT CATEGORY	National Pollutant Discharge Elimination System ("NPDES") Minor ("MI")
SIC & NAICS CODE(S)	3087 and 325211
APPLICABLE EFFLUENT GUIDELINES	None
PERMIT TYPE	Reissuance
OWNERSHIP	Private
RECEIVING WATER	Lydall Brook
WATERBODY SEGMENT ID	CT4500-12_02
WATERBODY CLASSIFICATION	Α
DISCHARGE LOCATIONS (LAT, LONG)	DSN 101-1: 41° 47′ 46", -72° 31′ 09"
COMPLIANCE SCHEDULE	Yes (Per- and Polyfluoroalkyl Substances sampling 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.: DEP352497	Amount: \$1,300	Date Paid: 6/5/2020
Processing Fee	Invoice No.: DEP355683	Amount: \$ 13,650	Date Paid: 9/14/2020

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 (gpd))	DSNs	ANNUAL FEE
102000b	Non-Contact Cooling Water	450,000	001-1	\$2,290.00
ТОТ	TAL AMOUNT			\$2,290.00

1.2 APPLICATION SUBMITTAL INFORMATION

On June 25, 2020, the Department of Energy and Environmental Protection ("DEEP") received an application (Application No. 202007878) from Sumitomo Bakelite North America, Inc. ("Permittee", "Applicant") located in Manchester, CT 06042, for the renewal of its NPDES permit (Permit No. CT0003379), expiring on September 21, 2020 ("the previous permit").

Consistent with the requirements of Section 22a-6g of the Connecticut General Statutes ("CGS"), the Permittee published a Notice of Permit Application in the Hartford Courant on June 17, 2020. On September 23, 2020, the application was determined to be timely and administratively sufficient in accordance with Section 22a-430(d)2(B) of the RCSA.

Although the application was submitted less than 180 days before permit expiration, the application is considered timely because of an Executive Order No. 7M ("the Order") issued by the Governor of the State of Connecticut on March 25, 2020. The Order temporarily extended deadlines for filing applications for renewals of existing permits due to the effects of COVID-19 pandemic. Specifically, an application for renewal of a permit, due 180 days prior to its expiration, was then due on or before 90 days prior to the permit expiration date in accordance with the Order.

The Permittee seeks authorization for the following in Application No. 202007878:

DSN	PROPOSED MAXIMUM	PROPOSED	TREATMENT	DISCHARGE
	DAILY FLOW (gpd)	WASTESTREAMS	TYPE	TO
001-1	450,000	Non-Contact Cooling Water	No Treatment	Lydall Brook

1.3 OTHER PERMITS

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

- Stormwater from the site is permitted under the "General Permit for the Discharge of Stormwater Associated with Industrial Activity" (GSI001591).
- Miscellaneous wastewaters from the site, such as water softener flush and boiler blowdown are discharged to the sanitary sewer. These discharges have automatic coverage (do not require registration because of the low volume) under the "General Permit for Discharges from Miscellaneous Industrial Users". Emergency discharge of non-contact cooling water ("NCCW") to the sanitary sewer when city water is used for non-contact cooling instead of well water, is also covered under the "General Permit for Discharges from Miscellaneous Industrial Users".

The Permittee also has a diversion permit (4500-036-IND-GR) that authorizes the withdrawal of water from a well on site.

1.4 FACILITY DESCRIPTION

Sumitomo Bakelite North America, Inc. ("SBNA") is a business that manufactures thermoset molding compounds comprised of resins (phenolic, epoxy, diallyl phthalate and silicone), glass and carbon reinforcements, inter fillers, pigments, and additives. SBNA is located on 24 Mill Street in Manchester, Connecticut, at the corner of Mill Street and Oakland Street.

1.5 DESCRIPTION OF INDUSTRIAL PROCESS

The process lines for manufacturing thermoset molding compounds consist of powder resin, fiberglass and filler mixing, extruding, grinding, screening, blending, conveying, and packaging of the final products. Compounding processes include:

- 1) Roll mill compounding of glass-reinforced phenolic resin-based molding compound;
- 2) Extrusion of glass-reinforced phenolic resin-based molding compound;
- 3) Processing of diallyl phthalate resin-based molding compound; and
- 4) Processing of long strands of chopped fiberglass and fillers.

The differences between the final products are the input material and methodology used to activate the chemicals. One process is solvent based which involves dissolving diallyl phthalate or epoxy resin in acetone and adding chopped glass fiber. Another process involves resin impregnation onto a glass roving in a dry process. The impregnated glass goes through a bank of ovens to cure and is then chopped into smaller lengths.

The Permittee is planning to install a new hydraulic press in the near future. The new hydraulic press is not expected to increase the discharge above the permitted maximum flow.

The process of compounding raw materials to produce molding compounds generates heat, which is damaging to both the materials and machinery. To reduce the heat, water is pumped from an onsite well into a 10,000-gallon stainless steel holding tank. The well water from the holding tank flows through piping and cooling jackets and is subsequently discharged to the Lydall Brook. The well water is used for non-contact cooling of the following:

- 1) Heat exchangers that cool the press oil used in the facility's seven existing hydraulic presses and newly proposed hydraulic press;
- 2) Single screw extruder barrels E1, E2, E3, and E4;
- 3) Two roll mills used for compounding glass reinforced phenolic resin;
- 4) Water cooled process chillers; and
- 5) The mixer drive.

When the groundwater well is not in operation or requires maintenance, the facility switches to potable water supplied by the City of Manchester. If potable water is used, the NCCW is not discharged to Lydall Brook, it is instead directed into the sanitary sewer with the approval of the City (see Section 1.3).

1.6 TREATMENT SYSTEM DESCRIPTION

There is no treatment for the once through NCCW.

<u>1.7 FACILITY CHANGES</u>

With this permit application, the Permittee is proposing to add a new hydraulic press (see Section 1.5 above).

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

The following are a list of 3(i) determinations since the previous permit:

Application No.	3(i) Approval issuance Date	Change Implemented
Application No. 202305060	July 6, 2023	Replacement of old Teledyne ISCO flowmeter with Teledyne ISCO Signature area velocity meter system and components on October 20, 2022. Replacement of old chart recorder with Dell Computer Windows 10, Custom SCADA/Dream Reports Application on November 1, 2022.
Application No. 202305061	July 6, 2023	Installation of 3 water cooled chillers on the long fiber production Line 1 in 2014 and installation of 2 water cooled chillers on the long fiber production Line 2 in 2018.

1.8 COMPLIANCE HISTORY

Based on the Permittee's discharge monitoring report ("DMR") data evaluated from September 2019 to August 2024, the Permittee reported the following effluent violations. The exceedances have been corrected.

Table 1.4: Effluent violations in the past 5 years									
MONTH/ YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE				
January, 2023	001-1	Lead, Total	AML	0.79 µg/l	2.0 µg/l				
January, 2023	001-1	Lead, Total	MDL	1.59 µg/l	2.0 µg/l				
July, 2024	001-1	Lead, Total	AML	0.79 μg/l	2.0 µg/l				
July, 2024	001-1	Lead, Total	MDL	1.59 μg/l	2.0 µg/l				

AML: Average monthly limit MDL: Maximum daily limit

The Permittee is not subject to an ongoing enforcement action but had undergone the following:

A Notice of Violation (NOV WR IN 23013) was issued on May 24, 2023, for the following.

- 1. Failure to perform annual chronic toxicity testing between the months of July and August as required by Section 6(C) of NPDES Permit No. CT0003379 ("NPDES Permit"). The 2022 annual chronic toxicity testing was performed between November 28, 2022 and December 3, 2023.
- 2. Failure to properly preserve ammonia samples collected on November 29, 2022, from DSN 001-1 and Lydall Brook as part of the 2022 annual chronic toxicity testing as required by Section 6(A)(1) of the NPDES Permit and 40 CFR 136.3, Table II.
- 3. Failure to comply with holding time requirements for nitrate and nitrite samples collected on December 3, 2022, from DSN 001-1 and Lydall Brook as part of the 2022 annual chronic toxicity testing as required by Section 6(A)(1) of the NPDES Permit and 40 CFR 136.3, Table II.
- 4. Violation of the average monthly and maximum daily limits of lead on January 6, 2023 (see Table 1.4 above).

- 5. Failure to properly notify DEEP of the effluent violations as required by RCSA Section 22a-430-3(j)(11)(D).
- 6. Failure to notify DEEP of two new "long fiber" process lines installed in 2014 and 2018 as required by RCSA Section 22a-430-3(i)(2).
- 7. Failure to notify DEEP of the new doppler flowmeter and electronic flow recording system associated with DSN 001-1 installed in November 2022 as required by RCSA Section 22a-430-3(i)(3).
- Failure to maintain records of facility flow monitoring information for DSN 001-1 between October 20, 2022, and October 31, 2022, in violation of RCSA Section 22a-430-3(j)(9)(A).

The NOV was closed on July 25, 2023, after the Permittee provided responses and developed procedures to prevent future violations.

1.9 GENERAL ISSUES RELATED TO THE APPLICATION

1.9.1 FEDERALLY RECOGNIZED INDIAN LAND

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

1.9.2 COASTAL AREA/COASTAL BOUNDARY

The activity is not located within a coastal boundary as defined in CGS 22a-94(b).

1.9.3 ENDANGERED SPECIES

As provided in the permit application, the site is not located within an area identified as a habitat for endangered, threatened or special concern species according to the January 2020 *State and Federal Listed Species and Natural Communities Map*.

1.9.4 AQUIFER PROTECTION AREAS

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

1.9.5 CONSERVATION OR PRESERVATION RESTRICTION

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

1.9.6 PUBLIC WATER SUPPLY WATERSHED

As provided in the permit application, the site is not located within a public water supply watershed.

SECTION 2 RECEIVING WATER BODY

2.1 RECEIVING WATER BODY INFORMATION

The Permittee discharges into Lydall Brook. The segment of Lydall Brook is identified as CT4500-12_02 and is a class "A" water. Class A waters are designated for: habitat for fish and other aquatic life and wildlife; potential drinking water supply; recreation; navigation; and industrial and agricultural water supply. This waterbody segment is identified on the 2022 Integrated Water Quality Report as an impaired waterbody. The waterbody is impaired for the designated uses habitat for fish, other aquatic life, and wildlife but the cause is unknown. FINAL-2022-IWQR-Connecticut-305b-Assessment-Results-for-Rivers-and-Streams.pdf FINAL-2022-IWQR-List-of-Impaired-Waters-for-Connecticut-EPA-Category-5.pdf



Figure 2.1. Image of discharge location with waterbody segment ID

Discharge Location

D' 331	C 1 11	· · · · · · · · · · · · · · · · · · ·		/ 1 TI7 /	α ν_{1}	D .
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Waterbody Segment ID	Waterbody Name	Location	Miles	Aquatic Life	Recreation
CT4500-12_02	Lydali Brook (Manchester)-02	Route 83 crossing (end of underground conduit), US to outlet of Salters Pond, parallel to Lydall Street at Coleman Road intersection, Manchester.	1.05	Not Supporting	Not Assessed

Figure 2.3. Image of applicable list of impaired waters for Connecticut

Waterbody Segment ID	Waterbody Name	Cause	Impaired Designated Use
		1	
CT4500-12_02	Lydall Brook (Manchester)-02	CAUSE UNKNOWN	Habitat for Fish, Other Aquatic Life and Wildlife

2.2 APPLICABLE TOTAL MAXIMUM DAILY LOAD (TMDL)

The entire state is subject to "A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound" (December 2000) (https://longislandsoundstudy.net/wp-content/uploads/2010/03/Tmdl.pdf). The Permittee's discharge has not been assigned a waste load allocation for nitrogen as part of this TMDL, but nitrogen may be present in the wastewater. Therefore, monitoring is included to characterize the total nitrogen associated with the discharge.

SECTION 3 PERMIT CONDITIONS AND EFFLUENT LIMITATIONS

3.1 POLLUTANTS OF CONCERN

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

		REASON FOR INCLUSI	ON
POLLUTANT	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
Chlorine, Total Residual		\checkmark	
Copper, Total		\checkmark	
Lead, Total		\checkmark	
Oil and Grease, Total		~	
Nitrates (as N)			\checkmark
Nitrites (as N)			\checkmark
Total Kjeldahl Nitrogen			\checkmark
Total Nitrogen			\checkmark
Temperature		✓	
Total Suspended Solids		1	
Total Volatile Organics		×	
Zinc, Total		1	
Acute and chronic toxicity me $430-3(i)(3)$ of the RCSA pH	onitoring requirements	are also included in the permit on the permit of the permit consistent with	consistent with Section 22a- Section 22a-426-9(a)(1)

3.2 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").

3.3 TECHNOLOGY BASED EFFLUENT LIMITATIONS

Technology-based treatment requirements represent the minimum level of control that must be imposed under CWA Section 301(b) and 402 to meet best practicable control technology currently available ("BPT") for conventional pollutants and some metals, best conventional control technology ("BCT") for conventional pollutants, and best available technology economically achievable ("BAT") for toxic and non-conventional pollutants. See 40 CFR Section 125 Subpart A and RCSA Section 22a-430-4(1)(4)(A).

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

None of EPA's ELGs are applicable to this discharge. In the absence of published technologybased effluent guidelines, the permit writer is authorized under CWA Section 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").

3.4 ZONE OF INFLUENCE

Section 22a-426-4(1) 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 22,646 gph ("gallons per hour") was carried forward.

3.5 RESONABLE POTENTIAL ANALYSIS

Pursuant to CWA Section 301(b)(1)(C) and 40 CFR Section 122.44(d)(1), NPDES permits must contain any requirements in addition to TBELs that are necessary to achieve water quality standards established under Section 303 of the CWA. See also 33 United States Code ("USC") Section 1311(b)(1)(C). In addition, limitations "must control any pollutant or pollutant parameter (conventional, non-conventional, or toxic) which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard, including State narrative criteria for water quality." 40 CFR Section 122.44(d)(1)(i). To determine if the discharge causes, or has the reasonable potential to cause, or contribute to an excursion above any WQS, EPA considers: 1) existing controls on point and non-point sources of pollution; 2) the variability of the pollutant or pollutant parameter in the effluent; 3) the sensitivity of the species to toxicity testing (when evaluating whole

effluent toxicity); and 4) where appropriate, the dilution of the effluent by the receiving water. See 40 CFR Section 122.44(d)(1)(ii).

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

Chlorine, copper and lead have been determined to have a reasonable potential to contribute or cause an excursion above the WQS (see Table 3.5.1).

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.)

 $Q = Flow, C = Concentration, (QC)_u = Upstream data, (QC)_d = Downstream data, (QC)_e = Effluent data and <math>Q_d = Q_u + Q_e$. $Q_e = 400,000 \text{ gpd} = 16,667 \text{ gph}, Q_u = 22,646 \text{ gph}, Q_d = 39,313 \text{ gph}, Q_{u,health} = 45,292 \text{ gph}, and <math>Q_{d,health} = 61,959 \text{ gph}.$

Pollutants	PMC in effluent =	PMC in the	Connecticut	Is there		
	Maximum measured	waterbody $C_{d=}$	(WQ	potential		
	concentration X	$(QC)_u + (QC)_e$	Aquatic Life	Aquatic Life	Human	to exceed
	multiplier in	Q _d	(Acute)	(Chronic)	Health	WQC?
	Attachment A	vu	(µg/l)	(µg/l)	(µg/l)	
Chlorine	10 X 7.1 = 71	30.10	19	11		Yes
Copper	4 X 4.3 = 17.2	7.29	14.3	4.8	1,300	Yes
Lead	2 X 6.4 = 12.8	5.43	30	1.2		Yes
Zinc	5 X 2.4 = 12	5.09	65	65	26,000	No

3.5.1 TEMPERATURE

The previous permit had a maximum instantaneous limit of 85°F for temperature, consistent with the WQC for class A waters. The discharge temperature ranged from 52.3°F to 70.88°F (DMR data for September 2019 – August 2024), with an average temperature of 61.06 °F. A statistical analysis showed a 95% confidence interval of 61.06 °F \pm 2.08 °F, which gives a range of 58.98 °F to 63.14 °F. The data shows that it is unlikely that the discharge would exceed the WQC of 85 °F. Therefore, the WQC was incorporated in the permit.

3.5.2 TOTAL VOLATILE ORGANICS

Total volatile organics monitoring was required in the previous permit because of historic contamination at the site. The target pollutant is 1,1,1 trichloroethane, which was believed to be present in the range of 2 - 3 μ g/l. A review of DMR data (September 2019 – August 2024) showed total volatile organics was below detection 60% of the time and the maximum reported concentration was 2 μ g/l, which is below United States Environmental Protection Agency's maximum contaminant level of 200 μ g/l for drinking water. There is no numeric water quality criterion for 1,1,1-trichloroethane. Therefore, a numeric reasonable potential evaluation was not conducted and the continuation of monitoring is proposed based on best professional judgement.

<u>3.5.3 pH</u>

pH limitations of 6.8 - 8.5 S.U. are proposed consistent with the water quality criteria for class A waterbody.

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 Section 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 chlorine, copper, and lead. Therefore, the limits for these pollutants are calculated below.

	Table 3.6.1: Permit Limits Calculation							
Determine V	Determine Waste Load Allocation ("WLA") in µg/l							
$(QC)_d = Dc$	$(QC)_d$ = Downstream data, $(QC)_u$ = Upstream data, Qe = Discharge flow (see Table 3.6.1 for flow data).							
Pollutants	$WLA_{ac} = \frac{(QC)_d - Q_e}{Q_e}$	(QC) _u WLA	$_{\rm ch} = \frac{(\rm QC)_{\rm d} - (\rm QC)_{\rm d}}{\rm Q_{\rm e}}$	QC) _u	$WLA_{he} = \frac{(QC)_d - (QC)_u}{O_a}$			
Chlorine	44.82		25.95					
Copper	33.73		11.32			48327		
Lead	70.76		2.83					
	Determine long term averages and permit limits in μ g/l							
	LTA = Long term average	ge, AML = Average m	onthly limit, an	d MDL =	Maximum	daily limit		
Pollutants	LTA _{acute}	LTA _{chronic}		AN	/L =	MDL =		
	= WLA _{ac} X 99th	= WLA _{ch} X 99th	Governing	LTA X 95th		LTA X 99th		
	percentile multiplier	percentile	LTA	percent	ile multipli	percentile multiplie		
	in Attachment B	multiplier in		in Atta	chment C	in Attachment C		
		Attachment B						
Chlorine	44.82 X 0.117 = 5.24	25.95 X 0.214 = 5.5	5 5.24	5.24 2	X 2.78 =	5.24 X 8.55 = 44.8		
				14	4.57			
Copper	33.73 X 0.174 = 5.87	11.32 X 0.321 = 3.6	3 3.63	3.63 X	2.13 = 7.7	3.63 X 5.76 = 20.9		
Lead	70.76 X 0.126 = 8.92	$2.83 \times 0.224 = 0.63$	3 0.63	0.63 2	X 2.64 =	0.63 X 7.95 = 5.0		
				1	.66			

3.7 WHOLE EFFLUENT TOXICITY

The Permittee shall comply with effluent standards or prohibitions established by CWA Section 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 additional acute or chronic whole effluent toxicity testing.

The Permittee's previous permit required quarterly acute toxicity testing using *Daphnia Pulex* and *Pimephales promelas* and annual chronic toxicity testing using *Ceriodaphnia dubia* and Fathead minnow (*Pimephales promelas*). The previous permit had a NOAEL (no observable acute effect level) limit of 90% or greater survival in an undiluted effluent. During the last permit cycle, the Permittee had no exceedance of its NOAEL acute toxicity limit. The review of DMR data (September 2019 – August 2024) for acute toxicity tests, showed a range of 92% - 100% survival of test organisms in an undiluted effluent.

Based on the anti-backsliding regulations, the previous limit is carried forward.

3.8 COMPARISON OF LIMITS

After preparing and evaluating applicable TBELs and WQBELs, the most stringent limits are applied in the permit. Pollutants of concern that only require monitoring without limits are not included in the below table.

	Table 3.10.1: Comparison of Lir	nits Based on Different Criteria
Parameters	Water quality Limits Based on EPA/505/2- 90-001 (mg/l) (See Table 3.6.1)	Previous permit limits
Acute toxicity		NOAEL = 100%, Survival \geq 90%
Chlorine	AML = $14.57 \mu g/l$ MDL = $44.8 \mu g/l$ MIL = $24.3 \mu g/l$	MIL = 6.5 μg/l
Copper	$AML = 7.7 \ \mu g/l$ $MDL = 20.9 \ \mu g/l$	AML = 4.9 μg/l MDL = 11.86 μg/l MIL = 17.79 μg/l
Lead	$AML = 1.66 \ \mu g/l$ $MDL = 5.0 \ \mu g/l$	AML = $0.79 \ \mu g/l$ MDL = $1.59 \ \mu g/l$ MIL = $2.38 \ \mu g/l$
Oil and grease		5.0 mg/l
pH, minimum	6.8*	6.0
pH, maximum	8.5*	9.0
Temperature	85°F	85°F
Total suspended solids		AML = 20 mg/l MDL = 30 mg/l MIL = 45 mg/l
Note: The highlighted * pH range of waterbe AML: Average Mont	<mark>l numbers represent the most stringent effluen</mark> ody. hly Limit, MDL: Maximum Daily Limit,	t limits. MIL: Maximum Instantaneous Limit

3.9 SAMPLING FREQUENCY, TYPE, AND REPORTING

RCSA Section 22a-430-3(j) prescribes quarterly monitoring for non-contact cooling wastewaters. Except for total volatile organics, the sampling frequency is consistent with RCSA Section 22a-430-3(j)(3). The semi-annual sampling frequency for total volatile organics in the previous permit was carried forward because the maximum reported total volatile organics is 2 μ g/l, consistent with historical data and more frequent sampling is unwarranted.

3.10 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

POLLUTANTS	LIMIT	BASIS FOR LIMIT	MONITORING /REPORTING FREQUENCY
Acute Aquatic Toxicity, <i>Daphnia</i> <i>pulex</i> , NOAEL = 100%	\geq 90% Survival	Anti-backsliding regulations. Consistent with RCSA 22a-430- 4(l)(5)(A)(i-iii)).	Quarterly
Acute Aquatic Toxicity <i>Pimephales</i> promelas, NOAEL = 100%	\geq 90% Survival	Anti-backsliding regulations. Consistent with RCSA 22a-430- 4(1)(5)(A)(i-iii)).	Quarterly
Chronic Aquatic Toxicity (Survival) <i>Ceriodaphnia dubia</i>	Monitoring only requirement.	Case-by-case determination using BPJ.	Annually
Chronic Aquatic Toxicity (Reproduction) <i>Ceriodaphnia dubia</i>	Monitoring only requirement.	Case-by-case determination using BPJ.	Annually
Chronic Aquatic Toxicity (Survival) Pimephales promelas	Monitoring only requirement.	Case-by-case determination using BPJ.	Annually
Chronic Aquatic Toxicity (Growth) Pimephales promelas	Monitoring only requirement.	Case-by-case determination using BPJ.	Annually
Chlorine, total residual	$MIL = 6.5 \ \mu g/l$	Anti-backsliding regulations. The previous permit limits are WQBELs.	Quarterly
Copper, total	AML = 4.9 μg/l MDL = 11.86 μg/l MIL = 17.79 μg/l	Anti-backsliding regulations. The previous permit limits are WQBELs.	Quarterly
Flow rate (Average daily)	400,000 gpd	Permitted discharge flow per application.	Continuous/ Quarterly
Flow, Maximum during 24 hr. period	450,000 gpd	Permitted discharge flow per application.	Continuous/ Quarterly
Lead, total	AML = 0.79 μg/l MDL = 1.59 μg/l MIL = 2.38 μg/l	Anti-backsliding regulations. The previous permit limits are WQBELs.	Quarterly
Oil and grease, total	$MDL = 5.0 \ \mu g/l$ $MIL = 5.0 \ \mu g/l$	Anti-backsliding regulations. The previous permit limit was a case-by-case determination using historical data.	Quarterly
рН	6.8 - 8.5	WQC – (pH range of waterbody)	Quarterly
Nitrates (as N)	Monitoring only requirement	Case-by-case determination using BPJ.	Quarterly
Nitrites (as N)	Monitoring only requirement	Case-by-case determination using BPJ.	Quarterly
Total Kjeldahl Nitrogen	Monitoring only requirement	Case-by-case determination using BPJ.	Quarterly
Total Nitrogen	Monitoring only requirement	Case-by-case determination using BPJ.	Quarterly
Solids, Total Suspended	AML = 20 mg/l MDL = 30 mg/l MIL = 45 mg/l	Anti-backsliding regulations. The previous permit limits were based on case-by-case determination using Section 22a- 430-4(s)(2) as a guide.	Quarterly

POLLUTANTS	LIMIT	BASIS FOR LIMIT	MONITORING /REPORTING FREQUENCY
Temperature	85°F	WQC	Continuous/
Total Volatile Organics	Monitoring only requirement	Case-by-case determination using BPJ.	Semiannually
Zinc, Total	Monitoring only requirement.	No RP to cause exceedance of WQC.	Quarterly
AML: Average Monthly Limit	MDL: Maximum	Daily Limit MIL: Maximum Insta	ntaneous Limit
BPJ: Best Professional Judgment	RP: Reasonable po	otential WQC: Water quality	criteria
WQBELs: Water Quality Based Efflu	ent Limits		

3.11 COMPLIANCE SCHEDULE

The permit has a compliance schedule that follows the requirements found under 40 CFR 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 3087 and has been identified as a potential source of PFAS in accordance with DEEP's Industrial NPDES and Pretreatment PFAS Roadmap (https://www.business.ct.gov/-/media/deep/water regulating and discharges/industrial wastewater/2023-09-30-wped-pfasroadmap.pdf). EPA identified the Permittee as one of the chemical companies to conduct and submit testing on certain PFAS analytes that may be used in resins (Oct 9, 2024's EPA's Test order for PFAS used in Manufacturing Under National Testing Strategy). 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 Permittee will submit the results of the analysis to characterize the discharge.

3.12 ANTIDEGRADATION

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

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

• 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.

3.13 ANTI-BACKSLIDING

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

3.14 COOLING WATER INTAKE STRUCTURE SECTION 316(B)

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

The federal regulations establish requirements under Section 316(b) of the CWA for existing power generating facilities and existing manufacturing and industrial facilities with a cooling water intake structure having a design intake flow greater than 2 million gallons per day of water from waters of the United States and use at least 25 percent of the water they withdraw exclusively for cooling purposes. Section 125.92 defines CWIS as "the total physical structure and any associated constructed waterways used to withdraw cooling water from waters of the United States. The CWIS extends from the point at which water is first withdrawn from waters of the United States up to and including the intake pumps."

Section 125.90(b), states "Cooling water intake structures not subject to requirements under Section 125.94 through 125.99 or subparts I or N of this part must meet requirements under Section 316(b) of the CWA established by the Director on a case-by-case, best professional judgment (BPJ) basis."

The goal of this regulation is to reduce impingement mortality and entrainment of fish and other aquatic organisms at the CWIS. The Permittee withdraws water from an on-site groundwater well and not from a surface water. Therefore, Section 316(b) is not applicable to the Permittee's operation.

3.15 VARIANCES AND WAIVERS

The facility did not request a variance or a waiver.

3.16 E-REPORTING

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

SECTION 4 SUMMARY OF CHANGES MADE TO NEW PERMIT COMPARED TO THE PREVIOUS PERMIT

The changes made to the permit are as noted below.

- Monitoring requirements are included for total nitrogen the discharge enters the Long Island Sound basin, subject to the "A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound".
- The MIL for pH was changed from 6.0 9.0 to 6.8 8.5 S.U. (pH range of waterbody), consistent with the water quality criteria for a class A waterbody.

A review of the discharge monitoring reports from 2019 to 2024 showed that the Applicant should be able to meet the proposed effluent limits.

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. 202007878

PERMIT ID NO. CT0003379

Interested persons may obtain copies of the application from Alisa Werst, 24 Mill Street, Manchester, CT 06042, (860) 533-6635 or <u>AWerst@sbna-inc.com</u>.

The application is available for inspection by contacting Oluwatoyin Fakilede at 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 061065127 or DEEP.IndustrialNPDESPublicComments@ct.gov and should indicate the Permit ID No. CT0003379 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 30 days of electronic submittal. Additional information can be found at www.ct.gov/deep/adjudications.

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<u>ATTACHMENT A</u> <u>Reasonable Potential Statistical Multiplier (Table 3-1 of TSD EPA/505/2-90-001)</u>

sumber of									Coeffic	ient of	Variati	on	_				_			
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	90.3	227.8	269.9	316.7	368.3
Z	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.B	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	Z.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	Z.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	t.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 B WLA Statistical Multipliers from (Table 5-1 of TSD EPA/505/2-90-001) Table 5-1. Back Calculations of Long-Term Average

	WLA Multipliers e ^[0.5 σ² · z σ]		
cv			
	95th Percentile	99th Percentile	Acute
0,1	0.853	0.797	
0.2	0.736	0.643	105-03-201
0.3	0.644	0.527	LTA_ = WLA_ • e
0.4	0.571	0.440	a
0.5	0.514	0.373	
0.6	0.468	0.321	where $\sigma^2 = ln [CV^2 + 1]$,
0.7	0.432	0.281	z = 1.645 for 95th percentile occurrence probability, and
0.8	0.403	0.249	z = 2.326 for 99th percentile occurrence probability
0.9	0.379	0.224	
1.0	0.360	0.204	
1.1	0.344	0.187	1
1.2	0.330	0.174	
1.3	0.319	0.162	
1.4	0.310	0.153	
1.5	0.302	0.144	4
1.6	0.296	0.137	
1.7	0.290	0.131	1
1.8	0.285	0.126	
1.9	0.281	0.121	
2.0	0.277	0.117	

· ·		WLA Multipliers			
	cv	$e^{[0.5\sigma_4^2 \cdot z\sigma_4]}$			
		95th Percentile	99th Percentile		
Chronic	h				
(4-dev everage)	0.1	0.922	0.891		
(+day avoiago)	0.2	0.853	0.797		
	0.3	0.791	0.715		
1	0.4	0.736	0.643		
TA = W A = 0	0.5	0.687	0.581		
1	0.6	0.644	0.527		
	0.7	0.606	0.461		
where $\sigma_{4}^{2} = ln [CV^{2}/4 + 1]$.	0.8	0.571	0.440		
a - 1 CAE for OEth correctile one unance crobability and	0.9	0.541	0.404		
z a 1,645 for 93th percentile occurrence probability, and	1.0	0.514	0.3/3		
Z = 2.326 for each percentile occurrence probability	1.1	0.490	0.345		
	1.2	. 0.400	0.321		
	1.3	0.449	0.300		
1	1.4	0.432	0.281		
	1.5	0.417	0.264		
	1.6	0.403	0.249		
1	1.7	0.390	0.236		
	1.8	0.3/9	0.224		
J	1.9	0.369	0.214		
1	2.0	0.360	0.204		

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

	LTA m	ultipliers	3
cv	e[20-	0.5 o ²]	
	95th Percentile	99th Percentile	Maximum Daily Limit
0.1 0.2 0.3 0.6 0.6 0.6 0.6 0.6 0.6 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	1.17 1.36 1.55 1.75 2.13 2.31 2.46 2.64 2.91 3.03 3.13 3.23 3.31 3.32 3.35 3.51 2.64	1.25 1.90 2.27 2.68 3.11 3.58 4.01 4.46 4.90 5.34 5.76 6.17 6.56 6.93 7.29 7.63 7.95	MDL = LTA • e $[z \sigma - 0.5 \sigma^2]$ where $\sigma^2 = in [CV^2 + 1]$. z = 1.645 for 95th percentile occurrence probability, and z = 2.326 for 99th percentile occurrence probability
2.0	3.60	8.55	•
			LTA Multipliers
		1 1	[zg. +0.5g.2]

Table S-2. Calculation of Permit Limits

	cv	LTA Multipliers									
Average Monthly Limit		e [z o _n + 0.5 o _n ²]									
		95th Percentile				99th Percentile					
		ne1	n=2	n=4	n=10	n=30	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	1.06	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
120-1050-81	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
AML = LTA • e	0.6	2.13	1.80	1.55	1.38	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
where $\sigma_{r}^2 = ln (CV^2/n + 1)$.	0.8	2.48	2.07	1.75	1.52	1.26	4.01	2.96	2.27	1.73	1.39
a - 1 645 for O5th persectile	0.9	2.64	2.20	1.65	1.59	1.29	4.46	3.28	2.48	1.84	1.44
z = 2.226 for 90th percentile, and	1.0	2.78	2.33	1.95	1.66	1.33	4.90	3.59	2.66	1.96	1.50
n = number of samples/month	1.1	2.5	2,40	2.04	1.60	1.30	5.34	4.99	2.00	2.07	1.00
n - namber of autipleatholdin	1.2	3.03	2.00	2.10	1.87	1.43	6.17	4 55	3.11	2.19	1.62
	14	3 23	2 77	2.31	1 94	1.47	8.54	4.85	3.56	245	1 74
	1.5	3.31	2.86	2.40	2.00	1.50	6.93	5.17	3.78	2.58	1.80
l	1.6	3.38	2.95	2.48	2.07	1.54	7.29	5.47	4.01	2.71	1.87
1	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	1.9	3.56	3.17	2.71	2.27	1.64	6.26	6.34	4.68	3.12	2.07
	2.0	3,60	3.23	2.76	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 **Sumitomo Bakelite North America, 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 determination that continuance of the existing discharge would not cause pollution of the waters of the state and the Commissioner proposes to renew a permit for the discharge to Lydall Brook.

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

2.0 APPLICANT'S PROPOSAL

Sumitomo Bakelite North America, Inc. proposes to discharge a maximum daily flow of 450,000 gallons per day of non-contact cooling wastewater to the Lydall Brook from cooling operations of air compressors, extruders, and milling machines used in the production of thermoset compounds at a manufacturing facility in Manchester.

The name and mailing address of the permit applicant are: Sumitomo Bakelite North America, Inc., 24 Mill Street, Manchester, CT 06042.

The activity takes place at: 24 Mill Street, Manchester, CT 06042, 600 feet from the southeast corner of Mill and Oakland Street.

3.0 REGULATORY CONDITIONS

<u>3.1 Type of Treatment</u> DSN 001-1: No treatment

3.2 Effluent Limitations

This permit contains effluent limitations applicable to the external outfall consistent with a Case-by-Case determination using the criteria of Best Professional Judgement and which will meet the 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 ("RCSA") the permit contains effluent limitations for the following types of toxic substances: heavy metals. Refer to the fact sheet for additional information.

An Affirmative Action/Equal Opportunity Employer



3.3 Compliance Schedule

This permit contains an enforceable compliance schedule requiring the Applicant to submit a per – and polyfluoroalkyl substances ("PFAS") sampling plan for the Commissioner's review and approval, and conduct PFAS sampling for screening purposes;

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, <u>et. seq.</u> 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. 202007878

PERMIT ID NO. CT0003379

Interested persons may obtain copies of the application from Alisa Werst, Sumitomo Bakelite North America, Inc., 24 Mill Street, Manchester, CT06042, Middletown, CT 06457, <u>AWerst@sbna-inc.com</u>, Phone No.: (860) 533-6635.

The application is available for inspection by contacting Oluwatoyin Fakilede, Environmental Engineer 3, 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.

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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 thirty (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 061065127 or <u>DEEP.IndustrialNPDESPublicComments@ct.gov</u> and should indicate the Permit ID No. CT0003379 in the subject line. The Commissioner may hold a public hearing prior to approving or denying an application if in the Commissioner's discretion the public interest will be best served thereby, and shall hold a hearing upon receipt of a petition signed by at least twenty -five persons. Notice of any public hearing shall be published at least thirty (30) days prior to the hearing.

7.0 PETITIONS FOR HEARING

Petitions 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 <u>deep.adjudications@ct.gov</u> or may be mailed or delivered to DEEP Office of Adjudications, 79 Elm Street, 3rd floor, Hartford, 06106-5127. 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 <u>www.ct.gov/deep/adjudications</u>.

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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