



**National Pollutant Discharge Elimination System Permit
issued to**

Permittee:

Allnex USA Inc.
528 South Cherry Street
Wallingford, Connecticut 06429

Location Address:

Allnex USA Inc.
528 South Cherry Street
Wallingford, Connecticut 06492

Facility ID: 148-017

Permit ID: CT0000086

Receiving Water Body: Quinnipiac River

Issuance Date: Date of Signature

Receiving Water Body ID: CT6900-00_05

Effective Date: 1st day of month after
signature

Permit Expires: 5 years from 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) **Allnex USA 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
- (l) Conditions Applicable to POTWs
- (m) Effluent Limitation Violations (Upsets)
- (n) Enforcement
- (o) Resource Conservation
- (p) Spill Prevention and Control
- (q) Instrumentation, Alarms, Flow Recorders
- (r) Equalization

Section 22a-430-4: Procedures and Criteria

- (a) Duty to Apply
 - (b) Duty to Reapply
 - (c) Application Requirements
 - (d) Preliminary Review
 - (e) Tentative Determination
 - (f) Draft Permits, Fact Sheets
 - (g) Public Notice, Notice of Hearing
 - (h) Public Comments
 - (i) Final Determination
 - (j) Public Hearings
 - (k) Submission of Plans and Specifications, Approval
 - (l) Establishing Effluent Limitations and Conditions
 - (m) Case by Case Determinations
 - (n) Permit Issuance or Renewal
 - (o) Permit Transfer
 - (p) Permit Revocation, Denial or Modification
 - (q) Variances
 - (s) Treatment Requirements
- (C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.
- (D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under Section 22a-438 or 22a-131a of the CGS or in accordance with Section 22a-6, under Section 53a-157b of the CGS.
- (E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection (“Commissioner”). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least thirty days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.
- (F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.
- (G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (H) An annual fee shall be paid for each year this permit is in effect as set forth in Section 22a-430-7 of the RCSA.
- (I) The Permittee shall operate and maintain its collection and treatment system in accordance with its Operation and Maintenance Plan and with any approvals issued in accordance with RCSA Section 22a-430-3(i)(3).

SECTION 2: DEFINITIONS

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in Section 22a-423 of the CGS and Section 22a-430-3(a) and 22a-430-6 of the RCSA.
- (B) In addition to the above, the following definitions shall apply to this permit:

“40 CFR” means Title 40 of the Code of Federal Regulations.

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

“Average Monthly Limit” means the maximum allowable “Average Monthly Concentration” as defined in Section 22a-430-3(a) of the RCSA when expressed as a concentration (e.g., mg/l). Otherwise, it means “Average Monthly Discharge Limitation” as defined in Section 22a-430-3(a) of the RCSA.

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

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

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

“Dilution Factor” means the inverse of the “Instream Waste Concentration”.

“DMR” means Discharge Monitoring Report.

“IC” means “Inhibition Concentration”.

“IC₂₅” means a point estimate of the toxicant concentration that would cause a twenty-five (25) percent reduction in a non-lethal biological measurement of the test organism, such as reproduction or growth.

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

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

“LC” means Lethal Concentration

“LC₅₀” 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.

“PPM” means parts per million

“Quarter” means the calendar quarter beginning at 12:00 AM on the first day of March, June, September, and December and ending at 12:00 AM on the first day of June, September, December, and March, respectively.

“Quarterly”, when used as a sampling frequency in this permit, means that sampling is required in the months of February, May, August, and November.

“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 February and August.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner has issued a final determination and found that with respect to the discharge, DSN 001-1, continuance of the existing system would protect the waters of the state from pollution. The Commissioner’s decision is based on Application 201508943 for permit reissuance received on November 18, 2015, 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. 201508943, received by the Commissioner on November 18, 2015, and all modifications and approvals issued by the Commissioner or the Commissioner’s authorized agent, for the discharge and/or activities authorized by, or associated with this Permit.
- (C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or the CGS or regulations adopted thereunder which are then applicable.

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.

Draft

Table A

Discharge Serial Number: DSN 001-1						Monitoring Location: 1 (EXTERNAL OUTFALL)			
Wastewater Description: Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.									
Monitoring Location Description: Final effluent chamber									
Discharge is to: Quinnipiac River			ZOI: 269,450 gph			Outfall Location: 41 26'04" 72 50' 52"			
PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Acute Aquatic Toxicity ³ <i>Daphnia pulex</i>	TAA3D	%	NA	LC ₅₀ ≥ 100	Quarterly	Daily Composite	LC ₅₀ ≥ 33	NR	Grab
Acute Aquatic Toxicity ³ <i>Pimephales promelas</i>	TAA6C	%	NA	LC ₅₀ ≥ 100	Quarterly	Daily Composite	LC ₅₀ ≥ 33	NR	Grab
Chronic Aquatic Toxicity ^{4,9} (Survival) <i>Pimephales promelas</i>	TOP6C	%	NA	C-NOEC ≥ 26	Quarterly	Daily Composite	NA	NR	NA
Chronic Aquatic Toxicity ^{4,9} (Growth) <i>Pimephales promelas</i>	TPP6C	%	NA	C-NOEC ≥ 26	Quarterly	Daily Composite	NA	NR	NA
Chronic Aquatic Toxicity ^{4,9} (Survival) <i>Ceriodaphnia dubia</i>	TOP3B	%	NA	C-NOEC ≥ 26	Quarterly	Daily Composite	NA	NR	NA
Chronic Aquatic Toxicity ^{4,9} (Reproduction) <i>Ceriodaphnia dubia</i>	TPP3B	%	NA	C-NOEC ≥ 26	Quarterly	Daily Composite	NA	NR	NA
Acenaphthene	34205	ug/l	5.8	8.9	Annually	Daily Composite	13.3	NR	Grab
Acenaphthene	34205	g/d	26	71	Annually	Daily Composite	NA	NR	NA
Acenaphthylene	34200	ug/l	5.8	15	Annually	Daily Composite	22	NR	Grab
Acenaphthylene	34200	g/d	26	71	Annually	Daily Composite	NA	NR	NA
Acrylonitrile ⁷	34215	ug/l	0.25	0.36	Monthly	Grab Sample Average	0.55	NR	Grab
Acrylonitrile ⁷	34215	g/d	2.2	3.2	Monthly	Grab Sample Average	NA	NR	NA
Anthracene	34220	ug/l	0.105	0.211	Annually	Daily Composite	0.316	NR	Grab
Anthracene	34220	g/d	0.475	0.953	Annually	Daily Composite	NA	NR	NA
Benzene	34030	ug/l	9.9	36	Monthly	Grab Sample Average	54	NR	Grab
Benzene	34030	g/d	44	164	Monthly	Grab Sample Average	NA	NR	NA
Benzo(a)anthracene	34526	ug/l	0.018	0.026	Annually	Daily Composite	0.039	NR	Grab
Benzo(a)anthracene	34526	g/d	0.16	0.23	Annually	Daily Composite	NA	NR	NA
3,4-Benzofluoranthene	79531	ug/l	0.018	0.026	Annually	Daily Composite	0.039	NR	Grab
3,4-Benzofluoranthene	79531	g/d	0.16	0.23	Annually	Daily Composite	NA	NR	NA
Benzo(k)fluoranthene	34242	ug/l	0.018	0.026	Annually	Daily Composite	0.039	NR	Grab
Benzo(k)fluoranthene	34242	g/d	0.16	0.23	Annually	Daily Composite	NA	NR	NA
Benzo(a)pyrene	34247	ug/l	0.018	0.026	Annually	Daily Composite	0.039	NR	Grab
Benzo(a)pyrene	34247	g/d	0.16	0.23	Annually	Daily Composite	NA	NR	NA

Table A

Discharge Serial Number: DSN 001-1

Monitoring Location: 1 (EXTERNAL OUTFALL)

Wastewater Description: **Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.**

Monitoring Location Description: Final effluent chamber

Discharge is to: Quinnipiac River

ZOI: 269,450 gph

Outfall Location: 41 26'04" 72 50' 52"

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Bis(2-ethylhexyl) phthalate	51315	ug/l	2.2	4.4	Weekly	Daily Composite	6.6	NR	Grab
Bis(2-ethylhexyl) phthalate	51315	g/d	19	38	Weekly	Daily Composite	NA	NR	NA
Carbon Tetrachloride	32102	ug/l	1.6	2.3	Annually	Grab Sample Average	3.5	NR	Grab
Carbon Tetrachloride	32102	g/d	14	20	Annually	Grab Sample Average	NA	NR	NA
Chlorobenzene	34301	ug/l	4.0	7.5	Monthly	Grab Sample Average	11	NR	Grab
Chlorobenzene	34301	g/d	18	33	Monthly	Grab Sample Average	NA	NR	NA
Chloroethane	85811	ug/l	27	71	Monthly	Grab Sample Average	106	NR	Grab
Chloroethane	85811	g/d	125	323	Monthly	Grab Sample Average	NA	NR	NA
Chloroform	32106	ug/l	5.6	12	Monthly	Grab Sample Average	18	NR	Grab
Chloroform	32106	g/d	25	55	Monthly	Grab Sample Average	NA	NR	NA
2-Chlorophenol	34586	ug/l	8.3	26	Annually	Daily Composite	39	NR	Grab
2-Chlorophenol	34586	g/d	37	118	Annually	Daily Composite	NA	NR	NA
Chrysene	34320	ug/l	0.018	0.026	Annually	Daily Composite	0.039	NR	Grab
Chrysene	34320	g/d	0.16	0.23	Annually	Daily Composite	NA	NR	NA
Di-n-butyl phthalate	39110	ug/l	7.2	15	Annually	Daily Composite	22	NR	Grab
Di-n-butyl phthalate	39110	g/d	32	68	Annually	Daily Composite	NA	NR	NA
1,2-Dichlorobenzene	34536	ug/l	20	43	Annually	Grab Sample Average	64	NR	Grab
1,2-Dichlorobenzene	34536	g/d	92	196	Annually	Grab Sample Average	NA	NR	NA
1,3-Dichlorobenzene	34566	ug/l	8.3	11	Annually	Grab Sample Average	16	NR	Grab
1,3-Dichlorobenzene	34566	g/d	37	53	Annually	Grab Sample Average	NA	NR	NA
1,4-Dichlorobenzene	34571	ug/l	4.0	7.5	Annually	Grab Sample Average	11	NR	Grab
1,4-Dichlorobenzene	34571	g/d	18	33	Annually	Grab Sample Average	NA	NR	NA
1,1-Dichloroethane	34496	ug/l	5.8	15	Annually	Grab Sample Average	22	NR	Grab
1,1-Dichloroethane	34496	g/d	26	71	Annually	Grab Sample Average	NA	NR	NA
1,2-Dichloroethane	32103	ug/l	18	56	Annually	Grab Sample Average	84	NR	Grab
1,2-Dichloroethane	32103	g/d	82	254	Annually	Grab Sample Average	NA	NR	NA
1,1-Dichloroethylene	34501	ug/l	3.2	4.7	Annually	Grab Sample Average	7.0	NR	Grab
1,1-Dichloroethylene	34501	g/d	19	30	Annually	Grab Sample Average	NA	NR	NA
1,2-trans-Dichloroethylene	34546	ug/l	5.6	14	Annually	Grab Sample Average	21	NR	Grab
1,2-trans-Dichloroethylene	34546	g/d	25	65	Annually	Grab Sample Average	NA	NR	NA

Table A

Discharge Serial Number: DSN 001-1

Monitoring Location: 1 (EXTERNAL OUTFALL)

Wastewater Description: **Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.**

Monitoring Location Description: Final effluent chamber

Discharge is to: Quinnipiac River

ZOI: 269,450 gph

Outfall Location: 41 26'04" 72 50' 52"

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
2,4-Dichlorophenol	34601	ug/l	10	30	Annually	Grab Sample Average	45	NR	Grab
2,4-Dichlorophenol	34601	g/d	47	135	Annually	Daily Composite	NA	NR	NA
1,2-Dichloropropane	34541	ug/l	41	61	Annually	Daily Composite	91	NR	Grab
1,2-Dichloropropane	34541	g/d	184	277	Annually	Grab Sample Average	NA	NR	NA
1,3-Dichloropropylene	51044	ug/l	7.7	11	Annually	Grab Sample Average	16	NR	Grab
1,3-Dichloropropylene	51044	g/d	35	53	Annually	Grab Sample Average	NA	NR	NA
Diethyl phthalate	34336	ug/l	21	54	Annually	Grab Sample Average	81	NR	Grab
Diethyl phthalate	34336	g/d	97	245	Annually	Grab Sample Average	NA	NR	NA
2,4-Dimethylphenol	34606	ug/l	4.8	9.6	Annually	Grab Sample Average	14	NR	Grab
2,4-Dimethylphenol	34606	g/d	21	43	Annually	Grab Sample Average	NA	NR	NA
Dimethyl phthalate	34342	ug/l	5.0	12	Monthly	Daily Composite	18	NR	Grab
Dimethyl phthalate	34342	g/d	22	56	Monthly	Daily Composite	NA	NR	NA
4,6-Dinitro-o-cresol	34657	ug/l	20	74	Annually	Daily Composite	111	NR	Grab
4,6-Dinitro-o-cresol	34657	g/d	94	334	Annually	Daily Composite	NA	NR	NA
2,4-Dinitrophenol	34616	ug/l	19	32	Annually	Daily Composite	48	NR	Grab
2,4-Dinitrophenol	34616	g/d	85	148	Annually	Daily Composite	NA	NR	NA
2,4-Dinitrotoluene	34611	ug/l	3.4	5.0	Annually	Daily Composite	7.4	NR	Grab
2,4-Dinitrotoluene	34611	g/d	30	43	Annually	Daily Composite	NA	NR	NA
2,6-Dinitrotoluene	34626	ug/l	68	171	Annually	Daily Composite	2256	NR	Grab
2,6-Dinitrotoluene	34626	g/d	307	773	Annually	Daily Composite	NA	NR	NA
Ethylbenzene	78113	ug/l	8.5	28	Monthly	Grab Sample Average	42	NR	Grab
Ethylbenzene	78113	g/d	38	130	Monthly	Grab Sample Average	NA	NR	NA
Fluoranthene	34376	ug/l	1.28	1.87	Annually	Daily Composite	2.8	NR	Grab
Fluoranthene	34376	g/d	11	16	Annually	Daily Composite	NA	NR	NA
Fluorene	34381	ug/l	5.8	15	Annually	Daily Composite	22	NR	Grab
Fluorene	34381	g/d	26	71	Annually	Daily Composite	NA	NR	NA
Hexachlorobenzene	39700	ug/l	0.00026	0.00042	Annually	Daily Composite	0.00063	NR	Grab
Hexachlorobenzene	39700	g/d	0.003	.004	Annually	Daily Composite	NA	NR	NA
Hexachlorobutadiene	39702	ug/l	5.3	13	Annually	Daily Composite	19	NR	Grab
Hexachlorobutadiene	39702	g/d	24	59	Annually	Daily Composite	NA	NR	NA

Table A

Discharge Serial Number: DSN 001-1

Monitoring Location: 1 (EXTERNAL OUTFALL)

Wastewater Description: **Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.**

Monitoring Location Description: Final effluent chamber

Discharge is to: Quinnipiac River

ZOI: 269,450 gph

Outfall Location: 41 26'04" 72 50' 52"

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Hexachloroethane	34396	ug/l	3.3	4.8	Annually	Daily Composite	7.2	NR	Grab
Hexachloroethane	34396	g/d	25	65	Annually	Daily Composite	NA	NR	NA
Methyl Chloride	34418	ug/l	23	50	Annually	Grab Sample Average	75	NR	Grab
Methyl Chloride	34418	g/d	103	229	Monthly	Grab Sample Average	NA	NR	NA
Methylene Chloride	34423	ug/l	10	23	Monthly	Grab Sample Average	34	NR	Grab
Methylene Chloride	34423	g/d	48	107	Monthly	Grab Sample Average	NA	NR	NA
Naphthalene	34969	ug/l	5.8	15	Monthly	Daily Composite	22	NR	Grab
Naphthalene	34969	g/d	26	71	Monthly	Daily Composite	NA	NR	NA
Nitrobenzene	34447	ug/l	7.2	18	Annually	Daily Composite	27	NR	Grab
Nitrobenzene	34447	g/d	32	82	Annually	Daily Composite	NA	NR	NA
2-Nitrophenol	34591	ug/l	10	18	Annually	Daily Composite	27	NR	Grab
2-Nitrophenol	34591	g/d	49	83	Annually	Daily Composite	NA	NR	NA
4-Nitrophenol	34646	ug/l	19	33	Annually	Daily Composite	49	NR	Grab
4-Nitrophenol	34646	g/d	86	149	Annually	Daily Composite	NA	NR	NA
Phenanthrene	34461	ug/l	5.8	15	Annually	Daily Composite	22.5	NR	Grab
Phenanthrene	34461	g/d	26	71	Annually	Daily Composite	NA	NR	NA
Phenol	34694	ug/l	4.0	6.9	Monthly	Daily Composite	10	NR	Grab
Phenol	34694	g/d	18	31	Monthly	Daily Composite	NA	NR	NA
Pyrene	34469	ug/l	6.7	17	Annually	Daily Composite	25	NR	Grab
Pyrene	34469	g/d	30	80	Annually	Daily Composite	NA	NR	NA
Tetrachloroethylene	34475	ug/l	5.8	15	Monthly	Grab Sample Average	22	NR	Grab
Tetrachloroethylene	34475	g/d	26	67	Monthly	Grab Sample Average	NA	NR	NA
Toluene	34010	ug/l	6.9	21	Monthly	Grab Sample Average	31	NR	Grab
Toluene	34010	g/d	31	96	Monthly	Grab Sample Average	NA	NR	NA
Total Chromium	70028	ug/l	131	262	Monthly	Daily Composite	393	NR	Grab
Total Chromium	70028	g/d	1,138	2,282	Monthly	Daily Composite	NA	NR	NA
Total Copper	1042	ug/l	48.7	97.7	Monthly	Daily Composite	146	NR	Grab
Total Copper	1042	g/d	236	644	Monthly	Daily Composite	NA	NR	NA
Total Cyanide	720	ug/l	15	32.5	Monthly	Grab Sample Average	48.7	NR	Grab
Total Cyanide	720	g/d	130	283	Monthly	Grab Sample Average	NA	NR	NA

Table A

Discharge Serial Number: DSN 001-1

Monitoring Location: 1 (EXTERNAL OUTFALL)

Wastewater Description: **Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.**

Monitoring Location Description: Final effluent chamber

Discharge is to: Quinnipiac River

ZOI: 269,450 gph

Outfall Location: 41 26'04" 72 50' 52"

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Total Lead	1051	ug/l	3.7	7.5	Monthly	Daily Composite	11	NR	Grab
Total Lead	1051	g/d	23	46.2	Monthly	Daily Composite	NA	NR	NA
Total Nickel	1067	ug/l	90	180	Monthly	Daily Composite	271	NR	Grab
Total Nickel	1067	g/d	783	1,571	Monthly	Daily Composite	NA	NR	NA
Total Zinc	1092	ug/l	123	247	Weekly	Daily Composite	371	NR	Grab
Total Zinc	1092	g/d	832	1,890	Weekly	Daily Composite	NA	NR	NA
1,2,4-Trichlorobenzene	34551	ug/l	26.3	52.8	Annually	Daily Composite	79.2	NR	Grab
1,2,4-Trichlorobenzene	34551	g/d	119	238	Annually	Daily Composite	NA	NR	NA
1,1,1-Trichloroethane	34506	ug/l	5.6	14	Monthly	Grab Sample Average	21	NR	Grab
1,1,1-Trichloroethane	34506	g/d	25	65	Monthly	Grab Sample Average	NA	NR	NA
1,1,2-Trichloroethane	34511	ug/l	5.6	14	Annually	Grab Sample Average	21	NR	Grab
1,1,2-Trichloroethane	34511	g/d	25	65	Annually	Grab Sample Average	NA	NR	NA
Trichloroethylene	39180	ug/l	5.6	14	Monthly	Grab Sample Average	21	NR	Grab
Trichloroethylene	39180	g/d	25	65	Monthly	Grab Sample Average	NA	NR	NA
Vinyl Chloride	39175	ug/l	2.4	3.5	Annually	Grab Sample Average	5.3	NR	Grab
Vinyl Chloride	39175	g/day	21	30	Annually	Grab Sample Average	NA	NR	NA
Acetone	81522	mg/l	8.9	18	Monthly	Grab Sample Average	27	NR	NA
Acetonitrile	76997	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Acrylamide	50796	ug/l	10.0	20.1	Weekly	Grab Sample Average	30.1	NR	Grab
Acrylamide	50796	g/d	44.4	89.1	Weekly	Grab Sample Average	NA	NR	NA
Alkalinity (as CaCO ₃)	410	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Aluminum, Total	1105	mg/l	0.271	0.543	Monthly	Daily Composite	0.815	NR	Grab
Aluminum, Total	1105	kg/day	1.2	2.41	Monthly	Daily Composite	NA	NR	NA
Ammonia Nitrogen	610	mg/l	2.33	9.66	Three per week	Daily Composite	14.5	NR	Grab
Ammonia Nitrogen	610	kg/day	10.35	42.89	Three per week	Daily Composite	NA	NR	NA
Barium	1007	mg/l	0.637	1.23	Monthly	Daily Composite	1.84	NR	Grab
Benzoic Acid	77247	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA
Biochemical Oxygen Demand (BOD ₅)	85002	mg/l	25	50	Three per week	Daily Composite	75	NR	Grab
Biochemical Oxygen Demand (BOD ₅)	85002	kg/day	222	435	Three per week	Daily Composite	NA	NR	NA
Bisphenol A	81651	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA

Table A

Discharge Serial Number: DSN 001-1		Monitoring Location: 1 (EXTERNAL OUTFALL)							
Wastewater Description: Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.									
Monitoring Location Description: Final effluent chamber									
Discharge is to: Quinnipiac River			ZOI: 269,450 gph				Outfall Location: 41 26'04" 72 50' 52"		
PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Boron, Total	82057	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA
Butanol	45365	mg/l	----	----	Weekly	Grab Sample Average	NA	NR	NA
Butyl acetate	78531	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Chemical Oxygen Demand	81017	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Chemical Oxygen Demand	81017	kg/day	----	----	Three per week	Daily Composite	NA	NR	NA
Chlorine, Total Residual (See Remark)	50060	ug/l	34	69	Weekly	GSA Modified	103	NR	Grab
Chlorine, Total Residual (See Remark)	50060	g/day	151	306	Weekly	GSA Modified	NA	NR	NA
Cresol, meta	77151	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA
Cresol, ortho	78395	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA
Cresol, para	77146	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA
Diethyl amine	77030	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Dimethyl amine	77003	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Di-n-octyl phthalate	34596	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA
Epichlorohydrin	81679	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
<i>Escherichia coli</i> ⁵	51040	cfus/ 100ml	126	----	NR	Grab	400	Weekly	Grab
Ethanol	77004	mg/l	----	----	Weekly	Grab Sample Average	NA	NR	NA
Ethyl acrylate	51661	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Ethylene glycol	77023	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Flow rate (Average daily) ¹	56	gpd	1,190,000	----	Continuous	Daily flow	NA	NR	NA
Flow, Maximum during 24-hour period ¹	50047	gpd	----	2,809,000	Continuous	Daily flow	NA	NR	NA
Formaldehyde	71880	mg/l	0.703	1.77	Weekly	Daily Composite	2.66	NR	Grab
Formaldehyde	71880	kg/day	3.12	7.86	Weekly	Daily Composite	NA	NR	NA
Furfural	81588	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Iron, Total	1045	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA
Isobutanol	77033	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Isophorone	34408	mg/l	3.65	5.32	Monthly	Daily Composite	7.98	NR	Grab
Isophorone	34408	kg/day	13.2	23.6	Monthly	Daily Composite	NA	NR	NA
Isopropanol	77015	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Isopropylamine	77014	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Kjeldahl Nitrogen, Total (as N)	625	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA

Table A

Discharge Serial Number: DSN 001-1						Monitoring Location: 1 (EXTERNAL OUTFALL)				
Wastewater Description: Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.										
Monitoring Location Description: Final effluent chamber										
Discharge is to: Quinnipiac River			ZOI: 269,450 gph				Outfall Location: 41 26'04" 72 50' 52"			
PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported	
Magnesium, Total	927	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA	
Methanol	77885	mg/l	1.57	3.85	Weekly	Grab Sample Average	5.77	NR	Grab	
Methyl acrylate	51010	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA	
Methyl ethyl ketone	81595	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA	
Methyl methacrylate	81597	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA	
Nitrate (as N)	620	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA	
Nitrite (as N)	615	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA	
Nitrogen, Total ⁶	600	lb/day	----	----	Three per week	Daily Composite Calculation	NA	NR	NA	
Nitrogen, Total (Annual Loading) ⁶	51445	lb/day	928	----	Annually (December)	Calculation	NA	NR	NA	
Nonylphenol	51568	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA	
Oil & Grease, Total	556	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA	
Organic Nitrogen (as N)	605	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA	
Orthophosphate (as P)	70507	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA	
Oxygen, Dissolved	300	mg/l	NA	NA	NR	NA	----	Weekly	Grab	
PCBs (Polychlorinated Biphenyls as Total PCBs) ⁸	51692	ng/l	0.64	0.093	Monthly	Daily Composite	0.14	NR	Grab	
PCBs (Polychlorinated Biphenyls as Total PCBs) ⁸	51692	g/day	0.00028	0.00041	Monthly	Daily Composite	NA	NR	NA	
pH, Minimum	61942	S.U.	NA	NA	NR	NA	6.5	Continuous	Continuous	
pH, Maximum	91941	S.U.	NA	NA	NR	NA	8.0	Continuous	Continuous	
Phosphorus, Total (Effective from November 1 st to March 31 st)	665	mg/l	---	----	Three per week	Daily Composite	NA	NR	NA	
Phosphorus, Total (Effective from November 1 st to March 31 st)	665	lbs/day	----	----	Three per week	Daily Composite	NA	NR	NA	
Phosphorus, Total (Effective from April 1 st to October 31 st)	665	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA	

Table A

Discharge Serial Number: **DSN 001-1** Monitoring Location: **1 (EXTERNAL OUTFALL)**

Wastewater Description: **Non-contact cooling water, cooling tower blowdown, cooling tower system maintenance drains, incidental system leakage, maintenance drains from cooling tower, condenser condensate, steam condensate, filtrates, laboratory wastewater, still bottoms, steam jet ejector condensates, steam jet ejector intercooler water, produced water, seal water, patty box drainage, sluice pelletizer, decant water, wash water, wet scrubber, building roof and containment structure water, sampling sink or valve drainage, maintenance sinks, eye wash and safety shower, boiler blowdown, water treatment wastewater, air compressor condensates, air conditioner condensate, activated carbon regeneration, boiler system drains, fire water, sanitary sewage, fire suppression test water, fire water storage tank overflow, and engine cooling water for emergency diesel pump.**

Monitoring Location Description: **Final effluent chamber**

Discharge is to: **Quinnipiac River** ZOI: **269,450 gph** Outfall Location: **41 26'04" 72 50' 52"**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Phosphorus, Total (Effective from April 1 st to October 31 st)	665	lbs/day	1.49	----	Three per week	Daily Composite	NA	NR	NA
Propylene glycol	61163	mg/l	0.374	0.75	Monthly	Grab Sample Average	1.12	NR	NA
Silver, Total	1077	ug/l	0.316	0.634	Monthly	Daily Composite	0.951	NR	Grab
Silver, Total	1077	g/day	1.42	2.86	Monthly	Daily Composite	NA	NR	NA
Styrene	81708	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	Grab
Tetrahydrofuran	81607	mg/l	34.1	68.5	Monthly	Grab Sample Average	102.8	NR	Grab
Tetrahydrofuran	81607	kg/day	151.4	304.1	Monthly	Grab Sample Average	NA	NR	NA
Tert-Butyl alcohol	51008	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Tin, Total	1102	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA
Titanium, Total	1152	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA
Total Suspended Solids	530	mg/l	30	50	Three per week	Daily Composite	75	NR	Grab
Total Suspended Solids	530	kg/day	264	435	Three per week	Daily Composite	NA	NR	NA
Triethylamine	77111	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Xylenes, Total (o,m,p)	81551	ug/l	----	----	Weekly	Grab Sample Average	NA	NR	NA

TABLE A FOOTNOTES AND REMARKS

Footnotes:

1. 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 Total Flow for each day and the Average Daily Flow and the Maximum Daily Flow for each month.
2. The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry and the 'Sample Frequency' is more frequent than Monthly, then the 'Reporting Frequency' is Monthly. If the 'Sample Frequency' is specified as Monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.
3. Acute toxicity testing shall be conducted in accordance with Section 7(A) of this permit. The LC50 results (in %) for the acute toxicity testing shall be reported on the DMR. An LC50 of 100% means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.
4. 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 lethal and sub-lethal conditions noted in this table shall be reported on the DMR. The reported value for this parameter shall be the lowest effluent concentration result showing an effect detected by the laboratory.
5. The effluent shall be monitored and the limit effective for *Escherichia coli* from May 1st through September 30th. The geometric mean of the *Escherichia coli* values for the effluent sample(s) collected in a period of thirty (30) days during the period from May 1st through September 30th and shall not exceed a monthly geometric mean of 126 cfu per 100 milliliters, nor shall any sample(s) exceed 400 cfus per 100 milliliters as a daily maximum. Both the geometric mean and the daily maximum values shall be reported.
6. Daily total nitrogen concentration means the sum of the concentrations of: ammonia nitrogen + organic nitrogen + nitrate nitrogen + nitrite nitrogen for that day. Daily Total Nitrogen means the Total Nitrogen Concentration multiplied by the daily flow volume and converted to lbs/day. The average monthly Total Nitrogen shall be reported as the sum of the Daily Total Nitrogen divided by the number of nitrogen sampling days during the month and rounded to the nearest whole number. Total Nitrogen (Annual Loading) shall be reported as the sum of the average monthly Total Nitrogen from January through December divided by 12 and rounded to the nearest whole number.
7. Representative acrylonitrile sampling shall be conducted when Roehm America LLC is generating and discharging acrylonitrile wastewater. The Permittee shall document when acrylonitrile is used in production and the coordinated sampling dates to demonstrate compliance with this provision. If Roehm America LLC does not generate or discharge acrylonitrile wastewater in a month, sampling is still required.
8. Total PCBs is the sum of all congeners or all isomer or homolog or Aroclor analyses.
9. Laboratory water shall be used as dilution water for the dilution series when determining compliance with these limits. Additional testing shall occur on Quinnipiac River water at 0% effluent and a single dilution at 26% effluent. The laboratory report from this testing shall be submitted with the ATMR.

Remarks:

1. Abbreviations used for units are as follows: cfus means colony forming units; gpd means gallons per day; g/day means grams per day; kg/day means kilograms per day; mg/L means milligrams per liter; lbs/day means pounds per day; SU means Standard Units; µg/l means micrograms per liter; ng/L means nanograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable; RDS means Range During Sampling.
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. "GSA Modified" pertains to the sample collection method for Total Residual Chlorine. For this monitoring parameter, grab samples shall be collected at least four times per operating day. The Permittee may collect all four samples during the first shift of the sampling day. The Permittee shall report the arithmetic average of all the grab sample analyses taken.

Table B

Discharge Serial Number: **001-A**

Monitoring Location: **1**

Wastewater Description: **Influent to the treatment system**

Monitoring Location Description: **Sampling station located between the equalization basin and the aeration basin**

Discharge is to: **DSN 001-1**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Acetonitrile	76997	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Acrylonitrile ²	34215	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	Grab
Alkalinity (as CaCO ₃)	410	mg/l	----	----	Twice per month	Daily Composite	NA	NR	NA
Total Ammonia Nitrogen	610	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Benzene	34030	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Biochemical Oxygen Demand (BOD ₅)	85002	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Chemical Oxygen Demand	81017	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Butanol	45365	mg/l	----	----	Twice per month	Grab Sample Average	NA	NR	NA
Butyl acetate	78531	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Chlorobenzene	34301	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Ethanol	77004	mg/l	----	----	Twice per month	Grab Sample Average	NA	NR	NA
Ethylbenzene	78113	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Formaldehyde	71880	mg/l	----	----	Twice per month	Daily Composite	NA	NR	NA
Isobutanol	77033	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Kjeldahl Nitrogen, Total (as N)	625	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Methanol	77885	mg/l	----	----	Twice per month	Grab Sample Average	NA	NR	NA
Methylene Chloride	34423	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Methyl methacrylate	81597	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Nitrate (as N)	620	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Nitrite (as N)	615	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Nitrogen, Total	600	lb/day	----	----	Three per week	Daily Composite	NA	NR	NA
Organic Nitrogen (as N)	605	mg/l	----	----	Three per week	Daily Composite	NA	NR	NA
Orthophosphate (as P)	70507	mg/l	----	----	Twice per month	Daily Composite	NA	NR	NA
pH, Minimum	61942	S.U.	NA	NA	NR	NA	----	Continuous	Continuous
pH, Maximum	91941	S.U.	NA	NA	NR	NA	----	Continuous	Continuous
pH, Day of Sampling	400	S.U.	NA	NA	NR	NA	----	Three per week	RDS
Phosphorus, Total	665	mg/l	----	----	Twice per month	Daily Composite	NA	NR	NA
Styrene	81708	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Toluene	34010	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Trichloroethylene	39180	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Volatiles, Method 624	----	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Xylenes, Total (o,m,p)	81551	ug/l	----	----	Twice per month	Grab Sample Average	NA	NR	NA

Table B

Discharge Serial Number: 001-A	Monitoring Location: 1
Wastewater Description: Influent to the treatment system	
Monitoring Location Description: Sampling station located between the equalization basin and the aeration basin	
Discharge is to: DSN 001-1	

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported

TABLE B FOOTNOTES AND REMARKS

Footnote:

1. The first entry in this column is the “Sample Frequency”. If a “Reporting Frequency” does not follow this entry and the “Sample Frequency” is more frequent than monthly, then the “Reporting Frequency” is monthly. If the “Sample frequency” is specified as monthly, or less frequent, then the “Reporting Frequency” is the same as the “Sample Frequency”.
2. Acrylonitrile sampling shall be conducted when Roehm America LLC is generating and discharging acrylonitrile wastewater. The Permittee shall document when acrylonitrile is used in production and the coordinated sampling dates to demonstrate compliance with this provision. If Roehm America LLC does not generate or discharge acrylonitrile wastewater in a month, sampling is still required.

Remark:

1. Abbreviations used for units are as follows: mg/L means milligrams per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable RDS means Range During Sampling.
2. The Permittee shall use best efforts to ensure that monitoring required by Table B is conducted using the lowest ML achievable.

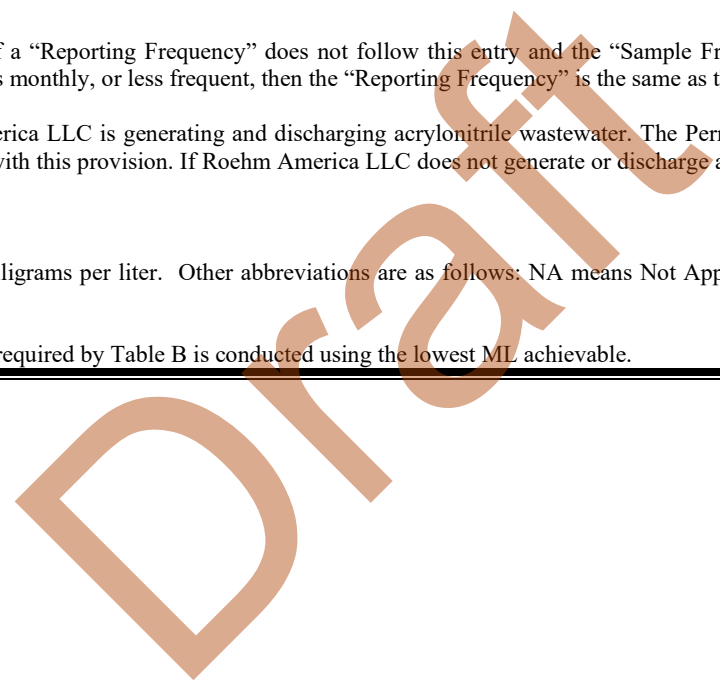


Table C

Discharge Serial Number: **001-B** Monitoring Location: **1**
 Wastewater Description: **Treated domestic sewage**
 Monitoring Location Description: **End of the chlorine contact chamber**

Discharge is to: **Influent to treatment system**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Chlorine, Total Residual	50060	mg/l	NA	NA	NR	NA	----	Twice per day	Grab
Flow, Day of Sampling ²	74076	gpd	----	33,000	Twice per day	Daily Flow	NA	NR	NA

TABLE B FOOTNOTES AND REMARKS

Footnote:

¹ The first entry in this column is the “Sample Frequency”. If a “Reporting Frequency” does not follow this entry and the “Sample Frequency” is more frequent than monthly, then the “Reporting Frequency” is monthly. If the “Sample frequency” is specified as monthly, or less frequent, then the “Reporting Frequency” is the same as the “Sample Frequency”.

² For this parameter the Permittee shall maintain at the facility a record of the Total Flow for each day and shall report the Average monthly Flow and the maximum Daily Flow for the Day of Sampling for each month.

Remark:

1. Abbreviations used for units are as follows: mg/L means milligrams per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable; RDS means Range During Sampling.

2. The Permittee shall disinfect/chlorinate the domestic sewage from May 1 until October 1. The Permittee shall use best efforts to maintain the total residual chlorine levels in the treated wastewater within a range of 0.5- 3.0 ppm.

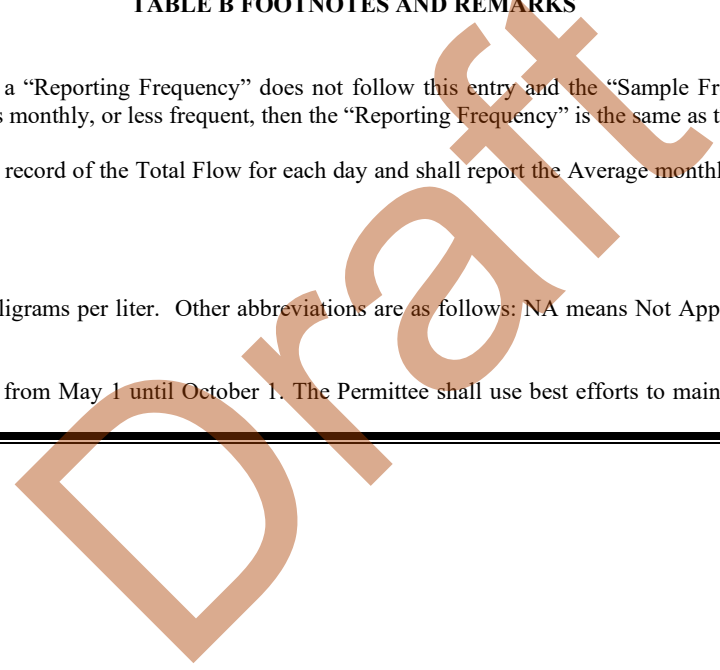


Table D

Discharge Serial Number: **001-E**

Monitoring Location: **1**

Wastewater Description: **Contaminated ground water from the acrylonitrile spill area (at Building 10), Building 2 No. 6 fuel oil spill area, methyl formcel spill area, and Building 5B tank farm spill area**

Monitoring Location Description: **Discharge from the Toluene/Water Separator**

Discharge is to: **Influent to the treatment system (DSN 001A)**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Acrylonitrile	76997	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Benzene	34030	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Chemical Oxygen Demand	81017	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Ethylbenzene	78113	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Flow Rate (average daily) ²	56	gpd	----	NA	Daily	Daily Flow	NA	NR	NA
Flow, Maximum during 24-hour period ²	50047	gpd	NA	180,000	Daily	Daily Flow	NA	NR	NA
Flow, Day of Sampling	74076	gpd	NA	----	Quarterly	Daily Flow	NA	NR	NA
Methyl methacrylate	81597	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
pH, Day of Sampling	400	S.U.	NA	NA	NR	NA	----	Quarterly	RDS
Styrene	81708	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Toluene	34010	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Xylenes, Total (o,m,p)	81551	mg/l	NA	NA	NR	NA	----	Quarterly	Grab

TABLE B FOOTNOTES AND REMARKS

Footnote:

¹ The first entry in this column is the “Sample Frequency”. If a “Reporting Frequency” does not follow this entry and the “Sample Frequency” is more frequent than monthly, then the “Reporting Frequency” is monthly. If the “Sample frequency” is specified as monthly, or less frequent, then the “Reporting Frequency” is the same as the “Sample Frequency”.

² For this parameter the Permittee shall maintain at the facility a record of the Total Flow for each day and shall report the Average monthly Flow and the maximum Daily Flow for the Day of Sampling for each month.

Remark:

1. Abbreviations used for units are as follows: gpd means gallons per pay; mg/L means milligrams per liter; S.U. means standard units. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable RDS means Range During Sampling.

Table E

Discharge Serial Number: **001-F** Monitoring Location: **1**
 Wastewater Description: **Landfill leachate**
 Monitoring Location Description: **Leachate inlet in the final manhole before the grit chamber**
 Discharge is to: **Influent to the treatment system (DSN 001A)**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Acetonitrile	76997	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Benzene	34030	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Chemical Oxygen Demand	81017	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Ethylbenzene	78113	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Flow Rate (average daily) ²	56	gpd	----	NA	Daily	Daily Flow	NA	NR	NA
Flow, Maximum during 24-hour period ²	50047	gpd	NA	250,000	Daily	Daily Flow	NA	NR	NA
Flow, Day of Sampling	74076	gpd	NA	----	Quarterly	Daily Flow	NA	NR	NA
Methyl methacrylate	81597	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
pH, Day of Sampling	400	S.U.	NA	NA	NR	NA	----	Quarterly	RDS
Styrene	81708	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Toluene	34010	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Xylenes, Total (o,m,p)	81551	mg/l	NA	NA	NR	NA	----	Quarterly	Grab

TABLE B FOOTNOTES AND REMARKS

Footnote:

¹ The first entry in this column is the “Sample Frequency”. If a “Reporting Frequency” does not follow this entry and the “Sample Frequency” is more frequent than monthly, then the “Reporting Frequency” is monthly. If the “Sample frequency” is specified as monthly, or less frequent, then the “Reporting Frequency” is the same as the “Sample Frequency”.

² For this parameter the Permittee shall maintain at the facility a record of the Total Flow for each day and shall report the Average monthly Flow and the maximum Daily Flow for the Day of Sampling for each month.

Remark:

1. Abbreviations used for units are as follows: mg/L means milligrams per liter; S.U. means standard units. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable RDS means Range During Sampling.

Table F

Discharge Serial Number: **001-I**

Monitoring Location: **1**

Wastewater Description: **Roehm's Building 10 wastewaters (equipment cleaning/maintenance-related wastewater, non-contact cooling water, sluice water, produced water, decant water, filtrate, patty box wastewater, steam condensate, activated carbon regeneration wastewater, seal water, water treatment wastewater, wash water, laboratory wastewater, foam suppression test water, contaminated stormwater); Roehm's Building 10A wastewater (sluice water, decant water laboratory wastewater, air compressor condensate, air conditioner condensate); Roehm's Building 45 wastewaters (cooling tower blowdown/maintenance, cooling tower maintenance overflow, water treatment wastewater, wash water, laboratory wastewater, eye wash/safety shower test water); stormwater collected in Roehm's raw materials spill containment sump.**

Monitoring Location Description: **Roehm Metering Station (Sewer Connection Point IMH-10)**

Discharge is to: **Influent to the treatment system (DSN 001A)**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
Acenaphthene	34205	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Acenaphthylene	34200	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Acetonitrile	51196	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Acrylonitrile	34215	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Anthracene	34220	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Benzene	34030	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Benzo(a)anthracene	34526	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
3,4-Benzofluoranthene	79531	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Benzo(k)fluoranthene	34242	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Benzo(a)pyrene	34247	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Bis(2-ethylhexyl) phthalate	51315	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Carbon Tetrachloride	32102	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Chlorobenzene	34301	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Chloroethane	85811	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Chloroform	32106	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
2-Chlorophenol	34586	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Chrysene	34320	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Di-n-butyl phthalate	39110	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
1,2-Dichlorobenzene	34536	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
1,3-Dichlorobenzene	34566	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
1,4-Dichlorobenzene	34571	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
1,1-Dichloroethane	34496	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
1,2-Dichloroethane	32103	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
1,1-Dichloroethylene	34501	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
1,2-trans-Dichloroethylene	34546	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
2,4-Dichlorophenol	34601	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
1,2-Dichloropropane	34541	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
1,3-Dichloropropylene	51044	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Diethyl phthalate	34336	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA

Table F

Discharge Serial Number: **001-I**

Monitoring Location: **1**

Wastewater Description: **Roehm's Building 10 wastewaters (equipment cleaning/maintenance-related wastewater, non-contact cooling water, sluice water, produced water, decant water, filtrate, patty box wastewater, steam condensate, activated carbon regeneration wastewater, seal water, water treatment wastewater, wash water, laboratory wastewater, foam suppression test water, contaminated stormwater); Roehm's Building 10A wastewater (sluice water, decant water laboratory wastewater, air compressor condensate, air conditioner condensate); Roehm's Building 45 wastewaters (cooling tower blowdown/maintenance, cooling tower maintenance overflow, water treatment wastewater, wash water, laboratory wastewater, eye wash/safety shower test water); stormwater collected in Roehm's raw materials spill containment sump.**

Monitoring Location Description: **Roehm Metering Station (Sewer Connection Point IMH-10)**

Discharge is to: **Influent to the treatment system (DSN 001A)**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
2,4-Dimethylphenol	34606	ug/l	----	-----	Annually	Grab Sample Average	NA	NR	NA
Dimethyl phthalate	34342	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
4,6-Dinitro-o-cresol	34657	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
2,4-Dinitrophenol	34616	ug/l	----	-----	Annually	Daily Composite	NA	NR	NA
2,4-Dinitrotoluene	34611	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
2,6-Dinitrotoluene	34626	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Ethylbenzene	78113	ug/l	----	-----	Annually	Grab Sample Average	NA	NR	NA
Fluoranthene	34376	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Fluorene	34381	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Hexachlorobenzene	39700	ug/l	----	-----	Annually	Daily Composite	NA	NR	NA
Hexachlorobutadiene	39702	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Hexachloroethane	34396	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Methyl Chloride	34418	ug/l	----	-----	Annually	Grab Sample Average	NA	NR	NA
Methylene Chloride	34423	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Naphthalene	34969	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Nitrobenzene	34447	ug/l	----	-----	Annually	Daily Composite	NA	NR	NA
2-Nitrophenol	34591	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
4-Nitrophenol	34646	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Phenanthrene	34461	ug/l	----	-----	Annually	Daily Composite	NA	NR	NA
Phenol	34694	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Pyrene	34469	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Tetrachloroethylene	34475	ug/l	----	-----	Annually	Grab Sample Average	NA	NR	NA
Toluene	34010	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Total Chromium	70028	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Total Copper	1042	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Total Cyanide	720	ug/l	----	-----	Monthly	Grab Sample Average	NA	NR	NA
Total Lead	1051	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Total Nickel	1067	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
Total Zinc	1092	ug/l	----	-----	Monthly	Daily Composite	NA	NR	NA
1,2,4-Trichlorobenzene	34551	ug/l	----	----	Annually	Daily Composite	NA	NR	NA
1,1,1-Trichloroethane	34506	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA

Table F

Discharge Serial Number: **001-1**

Monitoring Location: **1**

Wastewater Description: **Roehm's Building 10** wastewaters (equipment cleaning/maintenance-related wastewater, non-contact cooling water, sluice water, produced water, decant water, filtrate, patty box wastewater, steam condensate, activated carbon regeneration wastewater, seal water, water treatment wastewater, wash water, laboratory wastewater, foam suppression test water, contaminated stormwater); **Roehm's Building 10A** wastewater (sluice water, decant water laboratory wastewater, air compressor condensate, air conditioner condensate); **Roehm's Building 45** wastewaters (cooling tower blowdown/maintenance, cooling tower maintenance overflow, water treatment wastewater, wash water, laboratory wastewater, eye wash/safety shower test water); stormwater collected in Roehm's raw materials spill containment sump.

Monitoring Location Description: **Roehm Metering Station (Sewer Connection Point IMH-10)**

Discharge is to: **Influent to the treatment system (DSN 001A)**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported
1,1,2-Trichloroethane	34511	ug/l	----	-----	Annually	Grab Sample Average	NA	NR	NA
Trichloroethylene	39180	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Vinyl Chloride	39175	ug/l	----	----	Annually	Grab Sample Average	NA	NR	NA
Biochemical Oxygen Demand (BOD ₅)	85002	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA
Chemical Oxygen Demand	81017	mg/l	----	----	Monthly	Daily Composite NA	NA	NR	NA
Di-n-octyl phthalate	34596	ug/l	----	----	Monthly	Daily Composite	NA	NR	NA
Ethyl acrylate	51661	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Flow Rate (average daily) ²	56	gpd	----	NA	Continuous	Daily Flow	NA	NR	NA
Flow, Maximum during 24-hour period ²	50047	gpd	NA	----	Continuous	Daily Flow	NA	NR	NA
Flow, Day of Sampling	74076	gpd	NA	----	Monthly	Daily Flow	NA	NR	NA
Methyl acrylate	51010	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Methyl methacrylate	81597	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Oil & Grease, Total	556	mg/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
pH, Day of Sampling	400	S.U.	NA	NA	NR	NA	----	Monthly	Grab
Silver, Total	1077	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA
Styrene	81708	ug/l	----	----	Monthly	Grab Sample Average	NA	NR	NA
Total Suspended Solids	530	mg/l	----	----	Monthly	Daily Composite	NA	NR	NA

Table F

Discharge Serial Number: **001-I**

Monitoring Location: **1**

Wastewater Description: **Roehm’s Building 10 wastewaters (equipment cleaning/maintenance-related wastewater, non-contact cooling water, sluice water, produced water, decant water, filtrate, patty box wastewater, steam condensate, activated carbon regeneration wastewater, seal water, water treatment wastewater, wash water, laboratory wastewater, foam suppression test water, contaminated stormwater); Roehm’s Building 10A wastewater (sluice water, decant water laboratory wastewater, air compressor condensate, air conditioner condensate); Roehm’s Building 45 wastewaters (cooling tower blowdown/maintenance, cooling tower maintenance overflow, water treatment wastewater, wash water, laboratory wastewater, eye wash/safety shower test water); stormwater collected in Roehm’s raw materials spill containment sump.**

Monitoring Location Description: **Roehm Metering Station (Sewer Connection Point IMH-10)**

Discharge is to: **Influent to the treatment system (DSN 001A)**

PARAMETER	NET DMR CODE	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
			Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported

TABLE B FOOTNOTES AND REMARKS

Footnote:

¹ The first entry in this column is the “Sample Frequency”. If a “Reporting Frequency” does not follow this entry and the “Sample Frequency” is more frequent than monthly, then the “Reporting Frequency” is monthly. If the “Sample frequency” is specified as monthly, or less frequent, then the “Reporting Frequency” is the same as the “Sample Frequency”.

² For this parameter the Permittee shall maintain at the facility a record of the Total Flow for each day and shall report the Average monthly Flow and the maximum Daily Flow for the Day of Sampling for each month.

Remark:

1. Abbreviations used for units are as follows: gpd means gallons per pay; mg/L means milligrams per liter; S.U. means standard units; µg/l means micrograms per liter. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

- (A) All samples shall be collected, handled, and analyzed in accordance with the methods approved under 40 CFR 136, unless another method is required under 40 CFR subchapter N or unless an alternative method has been approved in writing pursuant to 40 CFR 136.5. To determine compliance with limits and conditions established in this permit, monitoring must be performed using sufficiently-sensitive methods approved pursuant to 40 CFR 136 for the analysis of pollutants having approved methods under that part, unless a method is required under 40 CFR subchapter N or unless an alternative method has been approved in writing pursuant to 40 CFR 136.5. Monitoring parameters which do not have approved methods of analysis defined in 40 CFR 136 shall be collected, handled, and analyzed in accordance with the methods in Section 6(B), below.
- (B) The latest, most up to date, of the following test method(s) as well as the following container, preservation, and hold time requirements, shall be used to analyze the parameters identified below:

PARAMETER	METHOD OF ANALYSIS	CONTAINER/PRESERVATION/MAXIMUM HOLDING TIME
Formaldehyde	EPA 1667	Per Method 1667

- (C) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136, unless otherwise specified.
- (D) The term minimum Level (ML) refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL). MLs may be obtained in several ways: They may be published in a method; they may be sample concentrations equivalent to the lowest acceptable calibration point used by the laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor. The Minimum Levels specified below represent the concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Section 5 Tables A - F. Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

<u>Parameter</u>	<u>Minimum Level</u>
Aluminum	10.0 µg/L
Chlorine, total residual	20.0 µg/L
Copper	5.0 µg/L
Epichlorohydrin	20.0 µg/L
Lead	5.0 µg/L
Mercury	0.05 µg/L
Nickel	5.0 µg/L
Zinc	10.0 µg/L
PCBs	0.5 µg/L
Benzo(k)fluoranthene	5 µg/L
Benzo(a)pyrene	5 µg/L
Phthalates	10 µg/L

- (E) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible, consistent with the requirements of this section of the permit.
- (F) Analyses for which quantification was verified to be at or below an ML, and which indicate that a parameter was not detected, shall be reported as “less than non-detect” where ‘non-detect’ is the numerical value equivalent to the ML for that analysis. If the Permittee is required to submit its DMRs through the NetDMR system, the Permittee shall report the non-detect value consistent with the reporting requirements for NetDMR.

- (G) Results of analyses which indicate that a parameter was not present at a concentration greater than or equal to the ML specified for that analysis shall be considered equivalent to zero for purposes of determining compliance with effluent limitations or conditions specified in this permit.
- (H) 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.
- (I) Analyses required under this permit shall be performed in accordance with CGS Section 19a-29a. An “environmental laboratory”, as that term is defined in the referenced section, that is performing analyses required by this permit, shall be registered and have certification acceptable to the Commissioner, as such registration and certification is necessary.

SECTION 7: AQUATIC TOXICITY TESTING

- (A) **ACUTE TESTING REQUIREMENTS.** The Permittee shall conduct acute aquatic toxicity testing for DSN 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 LC₅₀.
 - (5) **TEST CONDITIONS:**
 - (a) Tests for acute aquatic toxicity shall be conducted as prescribed for static non-renewal tests.
 - (b) Multi-concentration (definitive) testing shall be conducted. The following effluent dilution series concentrations shall be used: 100%, 75%, 50%, 25%, 12.5% and 6.25%.
 - (c) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (±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 samples of the discharge used in the acute toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 6(A) of this permit for the following parameters:

pH	Copper (Total recoverable and dissolved)
Hardness	Lead (Total recoverable and dissolved)
Alkalinity	Nitrogen, Ammonia (Total as N)
Conductivity	Nitrogen, Nitrate (Total as N)
Chlorine, Total Residual	Solids, Total Suspended
Nitrogen, Nitrate (Total as N)	Zinc
Phosphorus, Total	Aluminum, Total
Iron, Total	Manganese, Total
Total Kjeldhal Nitrogen	Phosphate
BOD ₅	Chemical Oxygen Demand
Total Cyanide	Total Oil and Grease
Formaldehyde	Total Chromium
Tin, Total	Silver, Total
Titanium, Total	Barium, Total
Acetone	Acrylamide
Acrylonitrile	Benzene
Bis-2-ethyl Hexyl Phthalate	Butanol
Chlorobenzene	Chloroform
Ethylbenzene	Methyl Ethyl Ketone
Methyl acrylate	Methyl N-Amyl Ketone
Methylene Chloride	Naphthalene
Phenols	2-Propanol
Styrene	Tetrahydrofuran
Tetrachloroethylene	Toluene
1,1,1 Trichloroethane	Xylene
Bisphenol A	Di-n-Octyl Phthalate
Nonylphenol	Furfural
PCBs	Dissolved Organic Carbon
Methanol	Methyl Methacrylate

- (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.
- (8) **TEST COMPLIANCE:** Compliance with limits on Aquatic Toxicity shall be determined as follows:
- (a) For limits expressed as a minimum LC50 value, compliance shall be demonstrated when the results of a valid definitive acute aquatic toxicity test indicates that the LC50 value for the test is greater than the acute toxicity limit.

- (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:** Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (± 5 mg/L) as CaCO₃ shall be used as dilution for toxicity tests used for compliance with the limits found in this permit. Additional dilutions at 0% and 26% effluent shall be conducted using Quinnipiac River collected upstream of the area influenced by the discharge in accordance with footnote 9 in Table A. The Permittee shall document the receiving 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 Quinnipiac River for use as site water and dilution water for the monitoring requirement found in footnote 9 Table A 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 for compliance with permit limits shall be comprised of a minimum of five dilutions, including 100%, 50%, 26%, 12.5%, and 6.25% effluent, including one on the control. Laboratory water shall be used as the dilution water. Additional tests shall occur at 0% and 26% dilutions using the receiving water, collected in accordance with Section 7(B)(5).

- (d) Dissolved oxygen, pH, and temperature shall be measured in each sample of effluent and the Quinnipiac River water sample prior to and immediately following renewal of the test solutions.
- (e) 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 below shall be conducted on an undiluted aliquot of each effluent sample and each sample of Quinnipiac River used in the test. The chemical analysis shall be analyzed and results reported in accordance with the provisions listed in Section 6(A):

pH	Copper (Total recoverable and dissolved)
Hardness	Lead (Total recoverable and dissolved)
Alkalinity	Nitrogen, Ammonia (Total as N)
Conductivity	Nitrogen, Nitrate (Total as N)
Chlorine, Total Residual	Solids, Total Suspended
Nitrogen, Nitrate (Total as N)	Zinc
Phosphorus, Total	Aluminum, Total
Iron, Total	Manganese, Total
Total Kjeldhal Nitrogen	Phosphate
BOD ₅	COD
Total Cyanide	Total Oil and Grease
Formaldehyde	Total Chromium
Tin, Total	Silver, Total
Titanium, Total	Barium, Total
Acetone	Acrylamide
Acrylonitrile	Benzene
Bis-2-ethyl Hexyl Phthalate	Butanol
Chlorobenzene	Chloroform
Ethylbenzene	Methyl Ethyl Ketone
Methyl acrylate	Methyl N-Amyl Ketone
Methylene Chloride	Naphthalene
Phenols	2-Propanol
Styrene	Tetrahydrofuran
Tetrachloroethylene	Toluene
1,1,1 Trichloroethane	Xylene
Bisphenol A	Di-n-Octyl Phthalate
Nonylphenol	Furfural
PCBs	Dissolved Organic Carbon
Methanol	Methyl Methacrylate

- (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) **TEST COMPLIANCE:** For limits expressed as a minimum NOEC value, compliance shall be demonstrated when the results of a valid definitive chronic aquatic toxicity test indicates that the NOEC value for the test is greater than or equal to the chronic toxicity limit.

- (10) **REPORTING:** A report detailing the results of the chronic toxicity monitoring shall be submitted no later than 60 days following the day sampling was concluded for that test. A hard copy of the report shall be submitted to the address in Section 8(B) and an electronic copy shall be submitted consistent with Section 8. 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-NOEC (growth), 7-day C-LOEC (growth), 7-day C-NOEC (reproduction), 7-day C-LOEC (reproduction), 7-day IC₂₅ (growth and reproduction).

SECTION 8: REPORTING REQUIREMENTS

- (A) The results of chemical analyses and any aquatic toxicity test required by this permit shall be submitted electronically using NetDMR. Monitoring results shall be reported at the monitoring frequency specified in this permit. Any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136, or another method required for an industry-specific waste stream under 40 CFR subchapter N, or other methods approved by the Commissioner, shall also be included on the DMR, or as an attachment, if necessary, and the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Commissioner in the permit. All aquatic toxicity reports shall also be included as an attachment to the DMR. A report shall also be included with the DMR which includes a detailed explanation of any violations of the limitations specified. DMRs, attachments, and reports, shall continue to be submitted electronically in accordance with Section 8(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 Aquatic Toxicity Monitoring Report (ATMR) 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 and a hard copy shall be sent to the Bureau of Water Protection and Land Reuse at the address below. The ATMR required by Section 7(A) and 7(B) shall be received at this address by the last day of the month following the month in which the samples are collected. The ATMR required by Section 7(B) shall be provided in accordance with the timeframe identified in Section 7(B)(10) above to:

Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity)
Connecticut Department of Energy and Environmental Protection
79 Elm St.
Hartford, CT 06106-5127

- (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 sampling and monitoring records required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Commissioner as an electronic attachment to the DMR in NetDMR. The Permittee shall also electronically file any written report of noncompliance described in Section 9 of this permit as an attachment in NetDMR. DMRs shall be submitted electronically to the Commissioner no later than the last day of the month following the completed reporting period. NetDMR is accessed from: <http://www.epa.gov/netdmr>.

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

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

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

- (4) Within 30 days of any notification of facility modifications reported in accordance with Section 9(A)(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: <https://portal.ct.gov/deep/water-regulating-and-discharges/industrial-wastewater/compliance-assistance/notification-requirements>.
- (C) In addition to any other written reporting requirements, the Permittee shall report any instances of noncompliance with this permit with its DMR. Such reporting shall be due no later than the last day of the month following the reporting period in which the noncompliant event occurred. The information provided in the DMR shall include, at a minimum: the type of violation, the duration of the violation, the cause of the violation, and any corrective action(s) or preventative measure(s) taken to address the violation.
 - (D) If any sample analysis indicates that an aquatic toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for aquatic toxicity and associated chemical parameters, as described above in Section 7. The exceedance or invalid test shall be reported to Commissioner in accordance with Section 9(A). The results shall be submitted to the Commissioner within 30 days of the exceedance or invalid test. The results and the associated ATMR shall be reported with the DMR and to the Bureau of Water Protection and Land Reuse in accordance with Section 8(B) of the permit. Results of all tests, whether valid or invalid, shall be reported.
 - (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 RSCA. The Permittee shall implement all actions in accordance with the approved report and schedule.

SECTION 10: COMPLIANCE SCHEDULE

The Permittee shall assure compliance with the terms and conditions of this permit and Sections 22a-430-3 and 4 of the RCSA in accordance with the following schedule:

(A) PFAS SAMPLING PLAN

- (1) On or before thirty (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 the per- and polyfluoroalkyl substances (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 a professional's education, experience and training, which is relevant to the work required by this permit within ten (10) days after a request for such a description. Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable professional unacceptable.
- (2) On or before one-hundred and twenty (120) days after the effective date of this permit, the Permittee shall submit for the Commissioner's review and approval a sampling plan on which to take a minimum of two (2) separate and distinct samples of the discharge associated with DSN 001-1 for analysis. A sampling location must be selected in a location prior to dilution with waste streams with no suspected source of PFAS. PFAS analyses shall be performed using the methods approved by EPA pursuant to 40 CFR 136 and by a laboratory certified to conduct such test methods. 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>). At a minimum this plan must identify the test method, laboratory, schedule of sampling events, sampling protocols including sample quality control procedures to be implemented, sampling locations, and number and volume of samples to be collected at each location.
- (3) The Permittee shall perform the approved actions in accordance with the approved sampling plan, but in no event shall the approved actions be completed later than ninety (90) days after the approval of the sampling plan submitted pursuant to Section 10(A)(2) of this permit. Within thirty (30) days after receiving analysis results, the Permittee shall submit all sample results generated as a result of executing the approved plan to the Commissioner in writing.

(B) Whole Effluent Toxicity

The Permittee shall conduct a comprehensive investigation into the potential sources of chronic aquatic toxicity. The Permittee shall identify and evaluate remedial alternatives, propose a schedule, and implement actions necessary to comply with its chronic aquatic toxicity limits and reduce chronic toxicity in accordance with the following schedule but no longer than two (2) years from the permit's effective date:

- (1) On or before thirty (30) days after the date of issuance of this permit, the Permittee shall retain one or more qualified consultants 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 consultants. The Permittee shall retain one or more qualified consultants acceptable to the Commissioner until the actions required by this section of the permit have been completed, and within ten (10) days after retaining any consultant other than one originally identified under this paragraph, the Permittee shall notify the Commissioner in writing of the identity of such other consultant. The consultant retained to perform the studies and oversee any remedial measures required to consistently achieve compliance with aquatic toxicity limitations shall be a qualified professional engineer licensed to practice in Connecticut acceptable to the Commissioner. The Permittee shall submit to the Commissioner a description of a consultant's education, experience and training that is relevant to the work required by this permit within ten (10) days after a request for such a description. Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable consultant unacceptable.
- (2) On or before ninety (90) days after the date of issuance of this permit, the Permittee shall submit for the Commissioner's review and written approval an aquatic toxicity scope of study for an investigation and evaluation of remedial alternatives with a proposed schedule and implement actions necessary to comply with its NPDES permit. The scope shall include an evaluation of the effluent for other conditions that may contribute to effluent toxicity, identification of effluent toxicants and their sources, a study on the possible synergistic effects of the discharge and receiving stream that may lead to toxicity, treatment system operation and treatment efficiency, and a review of influent and effluent monitoring data.
- (3) The Permittee shall submit for the Commissioner's review and written approval a comprehensive and thorough report in accordance with the scope of study approved pursuant to Section 10 (B)(2) that describes and evaluates alternative actions which may be taken by the Permittee to ensure compliance with its aquatic toxicity limits. Such report shall:
 - (a) Identify and evaluate alternative actions needed to comply with the Permittee's NPDES permit and to be consistent with the Connecticut Water Quality Standards including, but not limited to, pollutant source reduction, process changes/innovations, chemical substitutions and other internal and/or end-of-pipe treatment technologies;
 - (b) State in detail the most expeditious schedule for performing each alternative;
 - (c) List all permits and approvals required for each alternative, including but not limited to any permits required under Sections 22a-32, 22a-42a, 22a-342, 22a-361, 22a-368 or 22a-430 of the Connecticut General Statutes;
 - (d) Propose a preferred alternative or combination of alternatives with supporting justification; and

- (e) Propose a detailed program and schedule to perform all actions required by the preferred alternative including but not limited to a schedule for submission of engineering plans and specifications on any internal and/or end of pipe treatment facilities, start and completion of any construction activities related to any treatment facilities, and applying for and obtaining all permits and approvals required for such actions.
- (4) The Permittee shall submit to the Commissioner quarterly status reports beginning sixty (60) days after the date of approval of the report referenced in Section 10(A)(3) above. Status reports shall include, but not be limited to, a summary of all effluent monitoring data collected by the Permittee during the previous ninety (90) day period and a detailed description of progress made by the Permittee in performing actions required by this section of the permit in accordance with the approved schedule including, but not limited to, development of engineering plans and specifications, construction activity, contract bidding, operational changes, preparation and submittal of permit applications, and any other actions specified in the program approved pursuant to paragraph (B)(3) of this section.
- (5) If the investigation carried out under an approved scope of study does not fully address the requirements of this permit and protect surface waters from pollution to the satisfaction of the Commissioner, additional investigation shall be performed in accordance with a supplemental plan and schedule approved in writing by the Commissioner. Unless otherwise specified in writing by the Commissioner, the supplemental plan and schedule shall be submitted for the Commissioner's review and written approval on or before thirty (30) days after notice from the Commissioner that they are required.
- (C) 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 thirty (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.
- (D) Dates. The date of submission to the Commissioner of any document required by this section of the permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (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.
- (E) Notification of noncompliance. In the event that the Permittee becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this section of the permit or of any document required hereunder, the Permittee shall notify the Commissioner within twenty-four (24) hours and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, minimized to the greatest extent possible. In so notifying the Commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates, which may be approved in writing by the Commissioner. Notification by the Permittee shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.

- (F) Notice to Commissioner of changes. Within (14) days of the date the Permittee becomes aware of a change in any information submitted to the Commissioner under this section of the permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the Commissioner.
- (G) Submission of documents. Any document, other than a discharge monitoring report, required to be submitted to the Commissioner under this section of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

DEEP.WaterPermittingEnforcement@ct.gov with the subject line "CT0000086"
and

NPDES Permitting Program
Department of Energy and Environmental Protection
Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division
79 Elm Street
Hartford, CT 06106-5127

SECTION 11: ALUMINUM OPTIMIZATION PLAN

- (A) The Permittee shall develop and submit an Aluminum Optimization Plan (Plan) to minimize aluminum discharged through DSN 001-1. The Plan shall be submitted for the Commissioner's review no later than 180 days after the effective date of this permit.
- (1) On or before thirty (30) days after the date of issuance of this permit, the Permittee shall 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 professional. The Permittee shall retain one or more qualified professional acceptable to the Commissioner until the actions required by this section of the permit have been completed, and within ten (10) days after retaining any professional other than one originally identified under this paragraph, the Permittee shall notify the Commissioner in writing of the identity of such other professional. The professional retained to perform the Plan shall be a qualified professional with experience in the operational and/or design of industrial wastewater treatment facilities. The Permittee shall submit to the Commissioner a description of a professional's education, experience and training that is relevant to the work required by this permit within ten (10) days after a request for such a description. Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable professional unacceptable.
- (2) The Plan shall evaluate and identify methods for the Permittee to minimize aluminum discharged through DSN 001-1 to the Quinnipiac River by implementing optimization techniques that minimize the aluminum discharge using primarily existing facilities and equipment, to the maximum extent practicable. At a minimum the Plan shall:
- (a) Evaluate current and alternative methods of operating the Permittee's manufacturing and wastewater treatment facility, including operational, process, treatment, material and chemical substitutions, and equipment changes to reduce aluminum from the DSN 001-1 discharge. At a minimum, the methods evaluated shall include: operational and process changes to enhance effluent aluminum removal by the wastewater treatment facility; optimization of chemical usage and feed systems to minimize aluminum entering the wastewater discharge; chemical or material substitutions to eliminate or reduce aluminum entering the wastewater treatment facility; and pollution prevention and source reduction strategies to minimize aluminum usage at the manufacturing facility and entering the wastewater discharge;

- (b) Determine which current or alternative methods will be most effective at minimizing aluminum levels in the discharge. Current methods of operating the facility may be most effective at minimizing aluminum if demonstrated by the Section 11(A)(2)(a) of the Plan; and
 - (c) Include a proposed implementation schedule for those methods which were determined to be most effective at minimizing aluminum.
- (3) The Permittee shall implement the Plan sixty (60) days following submittal to the Commissioner, unless the Commissioner rejects the Plan prior to that date.
 - (4) The Permittee shall submit to the Commissioner annual status reports as an attachment to the December DMR. Status reports shall include, but not be limited to, a detailed description of progress made by the Permittee in performing actions required by this section of the permit in accordance with the proposed schedule including, but not limited to, a description of the optimization methods implemented under the Plan during the previous calendar year; whether the techniques are performing as expected; and the aluminum discharge trends relative to the previous year.
 - (5) The Permittee shall revise and maintain the Plan upon the Commissioner's request or by the Permittee to address equipment or operational changes.

This permit is hereby issued on

JP/ PB

Jennifer Perry, P.E.
Bureau Chief