NPDES PERMIT

issued to

Ahlstrom Nonwovens LLC
Two Elm Street
Windsor Locks, CT 06096

Location Address:
Ahlstrom Nonwovens LLC
Canal Bank Road
Windsor Locks, CT 06096

Facility ID: 165-002

Permit ID: CT0000434

Receiving Stream: **Connecticut River**
Stream Segment ID No: CT4000-00_03

Permit Expires: September 23, 2014

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, 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 an N.P.D.E.S. permit program.

(B) Ahlstrom Nonwovens LLC., 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 subsection (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
(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
(r) Secondary Treatment Requirements
(s) Treatment Requirements for Metals and Cyanide
(t) Discharges to POTWs - Prohibitions

(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 Environmental Protection ("Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least 30 days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.

(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 Regulations of Connecticut State Agencies.

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, except for "No Observable Acute Effect Level (NOAEL)" which is redefined below.

(B) In addition to the above, the following definitions shall apply to this permit:

"-----" in the limits column on the monitoring table means a limit is not specified but a value must be reported on the DMR.

"Annual" in the context of any sampling frequency found in Section 5, shall mean the sample must be collected in the month of June.

"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.

"Critical Test Concentration (CTC)" means the specified effluent dilution at which the Permittee is to conduct a single-concentration Aquatic Toxicity test.

"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.

"Grab Sample Average (GSA)" means the arithmetic average of all grab sample analyses. Grab samples shall be collected at least once every four hours over a full operating day for as long as a discharge exists on that day (minimum of two grab samples per day).

"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 of a discharge in the receiving water after mixing has occurred in the allocated zone of influence.

"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.

"NA" as a Monitoring Table abbreviation means “not applicable”.

"NR" as a Monitoring Table abbreviation means “not required”.

"No Observable Acute Effect Level (NOAEL)" means any concentration equal to or less than the critical test concentration in a single concentration (pass/fail) toxicity test conducted pursuant to section 22a-430-3(j)(7)(A)(i) RCSA demonstrating greater than 50% survival of test organisms in 100% (undiluted) effluent and 90% or greater survival of test organisms at the CTC.

"Quarterly", in the context of a sampling frequency, means sampling is required in the months of March, June, September, and December. In the event that the discharge does not occur in any of these sampling months, the Permittee shall sample during the next discharge event. The Permittee is required to sample the discharge four times a year.

"Range During Month" ("RDM"), as a sample type, means the lowest and the highest values of all of the monitoring data for the reporting month.

"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.

"Semi-annual" in the context of a sampling frequency, means the sample must be collected in the months of June and September.

"Twice per Month" when used as a sample frequency shall mean two samples per calendar month collected no less than 12 days apart.

"ug/l" means micrograms per liter.

SECTION 3: COMMISSIONER'S DECISION

(A) The Commissioner of Environmental Protection ("Commissioner"), has issued a final determination and found that 1) continuance of the existing system to treat the discharge would protect the waters of the state from pollution and 2) continuance of the existing discharges would protect the waters of the state from pollution. The Commissioner's decision is based on Application No. 200500900 for permit reissuance, received on April 1, 2005 and the administrative record established in the processing of that application.

(B) The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner's authorized agent for the discharges and/or activities authorized by, or associated with, this permit.

(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 CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

(A) 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.

(B) 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.

(C) The temperature of any discharge shall not increase the temperature of the receiving stream above 85^{o}F, or, in any case, raise the normal temperature of the receiving stream more than 4^{o}F beyond the zone of influence identified in the Thermal Plume Study Final Report dated August 9, 1994 and approved by the Commissioner on October 27, 1994.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(A) The discharges shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharges are restricted by, and shall be monitored in accordance with, the tables below:

Table A

Discharge Serial Number: 001-1 (wastewaters directed to DSN 008) | **Monitoring Location: 1**

Wastewater Description: North Non-Contact Cooling Water

Monitoring Location Description: North NCCW Tank

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aluminum, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	*
Flow, Average and Maximum [1]	gpd	---	---	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	gpd	NA	----	Weekly	Daily Flow	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	----	Weekly	RDM	
Temperature	^{0}F	NA	NA	NR	NA	----	Weekly	RDM	
Total Residual Chlorine	mg/l	NA	----	Semi-annual	GSA	NA	NR	NA	*
Zinc, Total	mg/l	NA	----	Monthly	Daily Composite[4]	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 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

[4] "Daily Composite" means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than four (4) hours and combined proportionally to flow.

Remarks:

1. In the event of a dual pump failure, the Permittee is authorized to discharge these wastewaters into the canal which drains into the Connecticut River. Further, the Permittee is required to conduct monitoring of the overflow for all parameters as specified in this table.

Table B

Discharge Serial Number: 002-1 (wastewaters directed to DSN 008) | **Monitoring Location: 1**

Wastewater Description: Middle Non-Contact Cooling Water

Monitoring Location Description: Middle NCCW Tank

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aluminum, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	*
Flow, Average and Maximum [1]	gpd	---	----	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	gpd	NA	----	Weekly	Daily Flow	NA	NR	NA	
Manganese, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	----	Weekly	RDM	
Temperature	^{0}F	NA	NA	NR	NA	----	Weekly	RDM	
Total Residual Chlorine	mg/l	NA	----	Semi-annual	GSA	NA	NR	NA	*
Zinc, Total	mg/l	NA	----	Monthly	Daily Composite[4]	NA	NR	NA	*

Table B 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 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

[4] "Daily Composite" means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than four (4) hours and combined proportionally to flow.

Remarks:

1. In the event of a dual pump failure, the Permittee is authorized to discharge these wastewaters into the canal which drains into the Connecticut River. Further, the Permittee is required to conduct monitoring of the overflow for all parameters as specified in this table.

Table C

Discharge Serial Number: 003-1 (wastewaters directed to DSN 008) | **Monitoring Location: 1**

Wastewater Description: South Hot Water Tank

Monitoring Location Description: Building 17, Basement, Discharge Pipe after pumps

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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	
Aluminum, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	*
Flow, Average and Maximum [1]	gpd	---	---	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	gpd	NA	----	Weekly	Daily Flow	NA	NR	NA	
Manganese, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	----	Weekly	RDM	
Temperature	^{0}F	NA	NA	NR	NA	----	Weekly	RDM	
Total Residual Chlorine	mg/l	NA	----	Semi-annual	GSA	NA	NR	NA	*
Zinc, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	*

Table C 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 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

[4] "Daily Composite" means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than four (4) hours and combined proportionally to flow.

Remarks:

1. In the event of that the Connecticut River rises during flood conditions above South Hot Non-Contact Cooling Water Tank, the Permittee is authorized to discharge these wastewaters to the Connecticut River. Samples type and parameters testing see Table C1.

Table C1

Discharge Serial Number: 003A | **Monitoring Location: 1**

Wastewater Description: South Hot Water Tank Overflow

Monitoring Location Description: Overflow Pipe

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aquatic Toxicity, Daphnia pulex NOAEL=100%	%	NA	NA	NR	NA	≥90%	Monthly	Grab	
Aquatic Toxicity, Pimephales promelas NOAEL=100%	%	NA	NA	NR	NA	≥90%	Monthly	Grab	
Aluminum, Total	mg/l	NA	NA	NR	NA	----	Monthly	Grab	*
Flow, Average and Maximum [1]	gpd	---	---	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	gpd	NA	----	Weekly	Daily Flow	NA	NR	NA	
Manganese, Total	mg/l	NA	NA	NR	NA	----	Monthly	Grab	
pH	S.U.	NA	NA	NR	NA	----	Weekly	RDM	
Temperature	^{0}F	NA	NA	NR	NA	----	Weekly	RDM	
Total Residual Chlorine	mg/l	NA	NA	NR	NA	----	Monthly	Grab	*
Zinc, Total	mg/l	NA	NA	NR	NA	----	Monthly	Grab	*

Table C1 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 Average Daily Flow and the Maximum Daily Flow for each month during the event.

[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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

Remarks:

1. In the event of that the Connecticut River rises during flood conditions above South Hot Non-Contact Cooling Water Tank, the Permittee is authorized to discharge these wastewaters to the Connecticut River. Samples, outlined above, shall be taken and reported to the DEP.

Table D

Discharge Serial Number: 004-1 (wastewaters directed to DSN 008) | **Monitoring Location: 1**

Wastewater Description: SBC Temperature Control Raw Water

Monitoring Location Description: Building 33, Discharge Pipe after pumps

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aluminum, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	*
Flow, Average and Maximum [1]	gpd	---	---	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	gpd	NA	----	Weekly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	
Manganese, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	----	Weekly	RDM	
Temperature	^{0}F	NA	NA	NR	NA	----	Weekly	RDM	
Total Suspended Solids	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	
Zinc, Total	mg/l	NA	----	Monthly	Daily Composite[4]	NA	NR	NA	*

Table D 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 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

[4] "Daily Composite" means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than four (4) hours and combined proportionally to flow.

Table E

Discharge Serial Number: 005-1 (wastewaters directed to DSN 008) | **Monitoring Location: 1**

Wastewater Description: Pulp Mill Dilute Weak Liquor Cooling Water

Monitoring Location Description: Building 21, Floor 1, Discharge Pipe after pumps

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aluminum, Total	mg/l	NA	----	Semi-annual	Daily Composite[4]	NA	NR	NA	*
Flow, Average and Maximum [1]	gpd	---	---	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	gpd	NA	----	Weekly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	----	Quarterly	Daily Composite[4]	NA	NR	NA	
Manganese, Total	mg/l	NA	----	Quarterly	Daily Composite[4]	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	----	Weekly	RDM	
Temperature	^{0}F	NA	NA	NR	NA	----	Weekly	RDM	
Total Suspended Solids	mg/l	NA	----	Quarterly	Daily Composite[4]	NA	NR	NA	

Table E 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 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

[4] "Daily Composite" means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than four (4) hours and combined proportionally to flow.

Table F

Discharge Serial Number: 006-1 (treated wastewaters discharged to DSN 008) | **Monitoring Location: 1**

Wastewater Description: Krofta Dissolved Air Flotation Clarifier Effluent

Monitoring Location Description: Immediately following clarifier, after any defoamer addition, prior to dilution from any other wastewaters

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aluminum, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	NA	*
Biochemical Oxygen Demand (5-day)	mg/l	26.4	39.3	Weekly	Daily Composite	59.0	NR	NA	
Biochemical Oxygen Demand (5-day)	kg/d	404.3	602.0	Weekly	Daily Composite	NA	NR	NA	
Copper, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	NA	*
Flow, Instantaneous (see remark 1)	gpm	NA	NA	NR	NA	3,200	Continuous	Instantaneous	
Flow, Average and Maximum [1]	mgd	4.5258	5.4911	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	mgd	NA	5.4911	Weekly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	----	Quarterly	Daily Composite	----	NR	NA	
Lead, Total	mg/l	NA	----	Quarterly	Daily Composite	----	NR	NA	
pH	S.U.	NA	NA	NR	NA	5.5 - 9.5	Weekly	RDS	
pH, Continuous	S.U.	NA	NA	NR	NA	5.5 - 9.5	Continuous	RDM	
Total Residual Chlorine	mg/l	NA	----	Monthly	GSA	NA	NR	NA	*
Total Suspended Solids	mg/l	28.0	60.9	Weekly	Daily Composite	91.35	NR	NA	
Total Suspended Solids	kg/d	429.8	933.7	Weekly	Daily Composite	NA	NR	NA	
Total Oil and Grease	mg/l	2.0	3.3	Quarterly	GSA	4.95	NR	NA	
Pentachlorophenol**	mg/l	NA	NA	NR	NA	0.008	Annually	Grab	*
Trichlorophenol**	mg/l	NA	NA	NR	NA	0.006	Annually	Grab	*
Zinc, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	NA	*
Epichlorohydrin	mg/l	NA	----	Monthly	GSA	NA	NR	NA	*

Table F 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 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] Minimum Level Test refers to Section 6 of this permit.

Remarks:

(*) The total average daily flow from a Krofta dissolved air flotation clarifier shall not exceed 3,200 gallons per minute.

(**) In accordance with section 40 CFR 430.124 of the federal regulations, the Permittee is authorized to forego monitoring of pentachlorophenol and trichlorophenol. These chemicals shall not be used in any of the facility operations. The Permittee shall attach an annual statement to the Discharge Monitoring Report (DMR) for the month of January, on a form provided (Attachment A), certifying there has been no use of pentachlorophenol and trichlorophenol at the facility since filing of the last certification. Additionally, in the event that any of these chemical parameters are found to be present or are expected to be present based on changes that occur in the Permittee's operations, the Permittee shall notify the Department and must immediately comply with the monitoring requirements provided in the table above.

Table G

Discharge Serial Number: 06C-1, 06E-1, 06F-1, 06G-1, 06P-1 (Wastewaters directed to DSN 006) | **Monitoring Location: 1**

Wastewater Description: Dechlorinated/Neutralized wastewater from the bleachout of paper machines #4, #10, #11, #12 & #15

Monitoring Location Description: Wet end of paper machines

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Flow, Average and Maximum [1]	gpd	----	180,000	Each Batch/ Monthly	Daily Flow	NA	NR	NA	
Dissolved Oxygen	mg/l	NA	NA	NR	NA	----	Twice per Month	Grab	
pH	s.u.	NA	NA	NR	NA	----	Each Batch/ Monthly	Grab	
Temperature	^{0}F	NA	NA	NR	NA	----	Each Batch/ Monthly	Grab	
Total Residual Chlorine	mg/l	NA	NA	NR	NA	0.50	Each Batch/ Monthly	Grab	*
Zinc, Total	mg/l	NA	NA	NR	NA	----	Monthly	Grab	*

Table G Footnotes:

[1] For this parameter the Permittee shall maintain at the facility a record of the total volume of treated wastewater per batch (in gallons) for each paper machine for each day of discharge and shall report the Average Daily Flow and 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

Table H

Discharge Serial Number: 06I-1, 06K-1, 06L-1, 06M-1, 06Q-1(Wastewaters directed to DSN 006) | **Monitoring Location: 1**

Wastewater Description: Wastewater from boilout of paper machines: #4, #10, #11, #12 & #15

Monitoring Location Description: Discharge Pipe

PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING**			**Minimum Level Test[3]**
		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[2]	Sample Type or measurement to be reported	
Flow, Average and Maximum [1]	gpd	----	180,000	Each Batch/ Monthly	Daily Flow	NA	NR	NA	
Dissolved Oxygen	mg/l	NA	NA	NR	NA	----	Twice per Month	Grab	
pH	s.u.	NA	NA	NR	NA	----	Each Batch/ Monthly	Grab	
Temperature	^{0}F	NA	NA	NR	NA	----	Each Batch/ Monthly	Grab	
Zinc, Total	mg/l	NA	NA	NR	NA	----	Monthly	Grab	*

Table H Footnotes:

[1] For this parameter the Permittee shall maintain at the facility a record of the total volume of wastewater being treated per batch gallons for each paper machine for each day of discharge and shall report the Average Daily Flow and 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'.

Table I

Discharge Serial Number: 06N-1 (Wastewaters directed to DSN 006) | **Monitoring Location: 1**

Wastewater Description: Boiler blowdown, demineralizer regeneration wastewater, chemical area drain wastewater, acid and basic discharges from acid and caustic tank containment areas and from the acid and caustic truck connectors

Monitoring Location Description: Base of neutralization tank at discharge pipe

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Copper, Total	mg/l	NA	----	Monthly	Daily Composite[4]	----	NR	NA	*
Flow, Average and Maximum [1]	gpd	120,000	280,000	Daily/Monthly	Daily Flow	NA	NR	NA	
Flow, Total	gpd	NA	280,000	Weekly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	----	Monthly	Daily Composite[4]	----	NR	NA	
Lead, Total	mg/l	NA	----	Monthly	Daily Composite[4]	----	NR	NA	*
pH	S.U.	NA	NA	NR	NA	6.0 – 9.0	Weekly	RDM	
Sulfate	mg/l	NA	NA	NR	NA	----	Monthly	Grab	
Temperature	^{0}F	NA	NA	NR	NA	----	Weekly	RDM	
Total Suspended Solids	mg/l	----	----	Weekly	Daily Composite[4]	NA	NR	NA	
Zinc, Total	mg/l	----	----	Monthly	Daily Composite[4]	----	NR	NA	*

Table I 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 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

[4] "Daily Composite" means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than four (4) hours and combined proportionally to flow.

Table J

Discharge Serial Number: 07A-1 (Wastewaters directed to DSN 006) | **Monitoring Location: 1**

Wastewater Description: Dechlorinated/Neutralized wastewater from the bleachout of Fiber Recovery Equipment

Monitoring Location Description: Fiber Recovery DWL Tank

PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING**			**Minimum Level Test[3]**
		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[2]	Sample Type or measurement to be reported	
Flow, Average and Maximum [1]	gpd	----	50,000	Each Batch/ Monthly	Daily Flow	NA	NR	NA	
Dissolved Oxygen	mg/l	NA	NA	NR	NA	≥5.0	Each Batch/ Monthly	Grab	
Temperature	^{0}F	NA	NA	NR	NA	----	Each Batch/ Monthly	Grab	
Total Residual Chlorine	mg/l	NA	NA	NR	NA	0.50	Each Batch/ Monthly	Grab	*

Table J Footnotes:

[1] For this parameter, the Permittee shall maintain at the facility a record of the total volume of wastewater being treated for each day of discharge and shall report 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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

Table K

Discharge Serial Number: 07B-1 (Wastewaters directed to DSN006) | **Monitoring Location: 1**

Wastewater Description: Neutralized wastewater from the boilout of Fiber Recovery Equipment

Monitoring Location Description: Fiber Recovery DWL Tank

PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING**			**Minimum Level Test**
		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[2]	Sample Type or measurement to be reported	
Flow, Average and Maximum [1]	gpd	----	50,000	Each Batch/ Monthly	Daily Flow	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	5.5 – 9.5	Each Batch/ Monthly	Grab	
Temperature	^{0}F	NA	NA	NR	NA	----	Each Batch/ Monthly	Grab	

Table K Footnotes:

[1] For this parameter, the Permittee shall maintain at the facility a record of the total volume of wastewater being treated per batch in gallons per batch and shall report the Average Daily Flow and 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'.

Table L

Discharge Serial Number: 008-1 | **Monitoring Location: 1**

Wastewater Description: Combined discharge of non-contact cooling water, raw canal water used for cooling, treated pulp mill wastewater, Krofta Dissolved Air Flotation Clarifier effluent.

Monitoring Location Description: Discharge Pipe after all mixing has occurred

Allocated Zone of Influence (ZOI): 11,584,500 gpd (See Footnote 4) | **In stream Waste Concentration (IWC): 2.1%**

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aquatic Toxicity, Daphnia pulex LC_{50}	%	NA	≥42	Quarterly	Daily Composite	>14	NR	Grab	
Aquatic Toxicity, Pimephales promelas LC_{50}	%	NA	≥42	Quarterly	Daily Composite	>14	NR	Grab	
Aluminum, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	Grab	*
Biochemical Oxygen Demand (5-day)	mg/l	----	----	Twice per Month	Daily Composite	----	NR	Grab	
Bromine	mg/l	NA	----	Quarterly	GSA	----	NR	Grab	
Copper, Total	mg/l	0.227	0.454	Monthly	Daily Composite	0.681	NR	Grab	*
Epichlorohydrin	mg/l	NA	----	Monthly	GSA	----	NR	Grab	*
Formaldehyde	mg/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	*
Iron, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	Grab	
Lead, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	Grab	*
Nickel, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	Grab	*
Nitrogen, Ammonia, (total as N)	mg/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	
Nitrogen, Nitrite, (total as N)	mg/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	
Nitrogen, Nitrate, (total as N)	mg/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	
Nitrogen, Total	mg/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	

Surfactants, Anionic (as MBAS)	mg/l	NA	----	Monthly	Daily Composite	-----	NR	Grab	
Temperature (April thru July and September thru November)	^{0}F	NA	NA	NR	NA	110	Continuous	RDM	
Temperature (August)	^{0}F	NA	NA	NR	NA	115	Continuous	RDM	
Temperature (December thru March)	^{0}F	NA	NA	NR	NA	95	Continuous	RDM	
Total Dissolved Solids	mg/l	NA	600	Quarterly	Daily Composite	900	NR	Grab	
Total Residual Chlorine	mg/l	0.329	0.658	Weekly	GSA	0.987	NR	Grab	*
Zinc, Total	mg/l	NA	----	Monthly	Daily Composite	----	NR	Grab	*
Flow, Average and Maximum [1]	mgd	6.0	9.0	Continuous/ Monthly	Daily Flow	NA	NR	NA	
Flow, Total	mgd	NA	9.0	Weekly	Daily Flow	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	6.0 – 9.0	Weekly	RDS	
pH, Continuous	S.U.	NA	NA	NR	NA	6.0 – 9.0	Continuous	RDM	
Dissolved Oxygen	mg/l	----	≥ 5.0	Weekly	GSA	----	NR	Grab	
Total Suspended Solids	mg/l	----	----	Twice a Month	Daily Composite	----	NR	Grab	
Phosphorous, Total	mg/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	

Table L 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 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] Minimum Level Test refers to Section 6 Paragraph (A)(3)of this permit.

[4] The Permittee has submitted a ZOI scope of study for the review of the Commissioner for DSN008. The Permittee has indicated their intention to request an amended ZOI based on the final results of this study.

Remarks:

1. In the event of the gravity feed discharge from the tank gets blocked up with debris to restrict the flow, the Permittee is authorized to discharge these wastewaters to the Connecticut River. Further, the Permittee is required to meet the effluent limitations and conduct all the monitoring of the overflow for all parameters as specified in this table.

2. The Permittee shall remove the sediments of the Diffuser Aggregate Collection Tank as needed and in coordination with a plant-wide shutdown at a minimum interval not to exceed 30 months.

Table M

Discharge Serial Number: 009-1 | **Monitoring Location: 1**

Wastewater Description: Combined discharge of non-contact cooling water from DSN001, DSN002, DSN003, DSN004, and DSN005.

Monitoring Location Description: flows from five separate flow meters for DSN001, DSN002, DSN003, DSN004, and DSN005

PARAMETER	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[2]	Sample Type or measurement to be reported
Flow, Average and Maximum Daily[1]	mgd	1.472	3.509	Continuous/ Monthly	Daily Flow	NR	NR	NA
Flow, Total	mgd	NA	3.509	Monthly	Daily Flow	NR	NR	NA

Table M 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 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'.

Table N

Discharge Serial Number: 012-1 | **Monitoring Location: 1**

Wastewater Description: Fire Pump Test Water

Monitoring Location Description: Fire pump test water effluent location

Frequency of Discharge: Twice per Year

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		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[2]	Sample Type or measurement to be reported	
Aluminum, Total	mg/l	NA	NA	NR	NA	----	Annually	Grab	*
Aquatic Toxicity, Daphnia Pulex NOAEL=100%	%	NA	NA	NR	NA	----	Annually	Grab	
Aquatic Toxicity, Pimephales Promelas NOAEL=100%	%	NA	NA	NR	NA	----	Annually	Grab	
Copper, Total	mg/l	NA	NA	NR	NA	----	Annually	Grab	*
Iron, Total	mg/l	NA	NA	NR	NA	----	Annually	Grab	
pH	S.U.	NA	NA	NR	NA	6.0 – 9.0	Annually	Grab	
Flow, Maximum Daily[1]	gpd	NA	36,000	Each Event	Daily Flow	NA	Annually	NA	
Total Residual Chlorine	mg/l	NA	NA	NR	NA	----	Annually	Grab	*
Total Suspended Solids	mg/l	NA	NA	NR	NA	----	Annually	Grab	
Zinc, Total	mg/l	NA	NA	NR	NA	----	Annually	Grab	*

Table N 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 Maximum Daily Flow for each event.

[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] Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

Remarks:

1. The results of the Toxicity Tests shall be recorded in % survival on the DMR based on criteria in Section 6(B) of this permit.
2. All analysis shall be performed on the same sample.

(1) All samples shall be comprised of only the wastewater described in this table. Samples shall be collected prior to combination with receiving waters or wastewater of any other type, and after all approved treatment units, if applicable. All samples collected shall be representative of the discharge during standard operating conditions.

(2) 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 Environmental Protection personnel, the Permittee, or other parties.

(3) The limits imposed on the discharges listed in this permit take effect on the issuance date of this permit, hence any sample taken after this date which, upon analysis, shows an exceedance of permit limits will be considered non-compliance.

The monitoring requirements begin on the date of issuance of this permit if the issuance date is on or before the 12th day of a month. For permits issued on or after the 13th day of a month, monitoring requirements begin the 1st day of the following month.

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

(A) Chemical Analysis

(1) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved pursuant to the 40 CFR 136 unless an alternative method has been approved in writing pursuant to 40 CFR 136.4 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified in this permit.

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

(3) 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-J, L, and N. 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.

Parameter	Minimum Level
Aluminum	10.0 ug/L
Chlorine, total residual	20.0 ug/L
Copper	5.0 ug/L
Epichlorohydrin	20.0 ug/L
Formaldehyde	50.0 ug/L
Lead	5.0 ug/L
Nickel	5.0 ug/L
Pentachlorophenol	20.0 ug/L
Trichlorophenol	20.0 ug/L
Zinc	10.0 ug/L

(4) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this section of the permit.

(5) Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.

(6) Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this permit.

(7) The analytical method used to determine the concentration of pentachlorophenol and trichlorophenol shall be EPA Method 625 Semivolatile Organic Compounds by Isotope Dilution GC/MS. Compliance with permit limits shall be achieved when the concentration of pentachlorophenol in the effluent sample is less than the method minimum level of 20.0 ug/l and the concentration of trichlorophenol in the effluent sample is less than the method minimum level of 20.0 ug/l.

(B) Acute Aquatic Toxicity Test

(1) Samples for monitoring of Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012).

(a) Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at 4 degrees Centigrade until Aquatic Toxicity testing is initiated.

(b) Effluent samples shall not be dechlorinated, filtered, or, modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.

(c) Chemical analyses of the parameters identified in Section 5, Tables C1, L, and N shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.

(i) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.

(d) Tests for Aquatic Toxicity shall be initiated within 24 hours of sample collection.

(2) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (invertebrate) in Tables C1, L, and N shall be conducted for 48-hours utilizing neonatal Daphnia pulex (less than 24-hours old)

(3) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (vertebrate) in Tables C1, L, and N shall be conducted for 48-hours utilizing larval Pimephales promelas (1-14 days old with no more than 24-hours range in age).

(4) Tests for Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.

(a) Definitive (multi-concentration) testing, with LC50 as the endpoint, shall be conducted to determine compliance with limits on Aquatic Toxicity and monitoring conditions and shall incorporate, at a minimum, the following effluent concentrations:

(i) For Aquatic Toxicity Limits expressed as LC50 values of 33% or greater: 100%, 75%, 50%, 25%, 12.5%, and 6.25%

(b) For Aquatic Toxicity Limits expressed as an NOAEL value, Pass/Fail (single-concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity Limit, or 100% as prescribed in section 22a-430-3(j)(7)(A)(i) of the Regulations of Connecticut State Agencies.

(c) Organisms shall not be fed during the tests.

(d) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.

(e) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as CaCO3 shall be used as dilution water in tests with freshwater organisms.

(5) Compliance with limits on Aquatic Toxicity appearing in Tables C1, L, and N 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 Aquatic Toxicity test indicates that the LC50 value for the test is greater than the Aquatic Toxicity Limit.

(b) For limits expressed as an NOAEL value, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity test indicates there is 90% or greater survival in the undiluted effluent.

(C) The Permittee shall monitor the toxicity of the DSN 008-1 in accordance with the following specifications.

(1) Chronic toxicity testing of the discharge shall be conducted two times per year in the months of June and September.

(2) Chronic toxicity test shall be performed on the discharge in accordance with the test methodology established in “Short term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms” (EPA-821-R-02-013) as referenced in 40 CFR 136 for Cerio daphnia survival and reproduction and Fathead Minnow larval survival and growth.

(3) Chronic tests shall utilize a minimum of five effluent dilutions prepared using a dilution factor of 0.5 (100% effluent, 50% effluent, 25% effluent, 12.5% effluent, 6.25% effluent).

(4) Connecticut River water collected immediately upstream of the area influenced by the discharge shall be used as site water control (0% effluent) and dilution water in the toxicity tests.

(5) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-821-R-02-012 at a hardness of 50±5 mg/l shall be included in the test protocol in addition to the site-water control.

(6) Daily composite samples of the discharge and grab samples of the Connecticut River for use as site water control and dilution water shall be collected on: day 0, for test solution renewal on day 1 and day 2 of the test; day 2, for test solution renewal on day 3 and day 4 of the test; and day 4,

for test solution renewal on day 5, 6, and 7 of the test. Samples shall not be dechlorinated, pH or hardness adjusted, or chemically altered in any way.

(7) All samples of the discharge and the Connecticut River water used in the 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	Nickel (Total recoverable and dissolved)
Alkalinity	Nitrogen, Ammonia (total as N)
Conductivity	Nitrogen, Nitrate (Total as N)
Chlorine, (Total residual)	Solids, Total Suspended
Aluminum	Lead (Total recoverable and dissolved)
Formaldehyde	Zinc, (Total recoverable and dissolved)
Epichlorohydrin	
Iron	

(8) A sodium chloride reference toxicant test shall be conducted with each chronic toxicity monitoring test using sodium chloride with an acute as the endpoint and chronic endpoint EC50, IC25, LOEC, NOEC.

SECTION 7: LIMITATIONS FOR AQUATIC TOXICITY BASED ON ACTUAL FLOWS

(A) In lieu of demonstrating compliance with the specific Maximum Daily Toxicity Limits in Section 5 Table L the Permittee may recalculate the IWC based on actual flows provided:

(1) the Permittee maintains an accurate record of measured discharge flows and hours of operation for all days on which a discharge occurs; and

(2) the total daily flow for any single operating day does not exceed the average of the daily flows for the thirty consecutive operating days prior to the sampling date by more than 25 per cent.

(B) The In stream Waste Concentration (IWC) shall be calculated as follows:

(1) The measured average daily flow in gallons per hour shall be tabulated for each of the prior 30 operating days and the arithmetic average for the 30 day period calculated.

(2) The IWC (in gallons per hour) specific for the thirty consecutive operating days prior to the sampling date shall be calculated by dividing the 30 day average hourly flow by the sum of the 30-day average flow and the zone of influence (ZOI) allocated to the discharge: 11,584,500.

$$\text{IWC (\%)} = \frac{\text{30 day average hourly flow}}{\text{30 day average hourly flow + ZOI}} \times 100$$

(3) The alternative Maximum Daily Toxicity Limit shall be determined by the IWC calculated above:

(a) For IWC equal to or less than 5%, the LC50 value shall be greater than or equal to the IWC times 20.

(b) For IWC greater than 5%, and less than 15%, the NOAEL value shall be an NOAEL equal to the IWC times 6.7.

(c) For IWC equal to or greater than 15%, the NOAEL value shall be an NOAEL equal to 100%.

(d) Demonstration of compliance with these alternative Maximum Daily Limits shall be performed as specified in Section 6(B) of this permit.

(C) Compliance with the alternative Maximum Daily Toxicity Limits based on actual flows shall be determined as follows:

(1) For alternative limits expressed as a Minimum LC50 value in accordance with Section (7)(B)(3)(a) above, compliance shall be demonstrated when the LC50 value for a valid definitive Aquatic Toxicity Test, conducted pursuant to the requirements specified in Section (6)(B) of this permit, is greater than the alternative limit.

(2) For alternative limits expressed as an NOAEL value in accordance with Section (7)(B)(3)(b) above, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity Test, conducted pursuant to the requirements specified in Section (6)(B) of this permit, indicates greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at a CTC equal to the alternative limit.

SECTION 8: REPORTING REQUIREMENTS

(A) The results of chemical analyses and any acute aquatic toxicity test required above shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) at the following address. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR 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 Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

(B) 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 shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Protection and Land Reuse at the following address. The ATMR shall be received at this address by the last day of the month following the month in which samples are collected. Chronic toxicity reports shall be submitted within 60 days of test completion.

Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity)
Connecticut Department of 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.

SECTION 9: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING

REQUIREMENTS

(A) 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 5 and Section 6, and the results reported to the Bureau of Water Protection and Land Reuse (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.

(B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity) for the review and approval of the Commissioner in accordance with section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the Commissioner.

(C) The Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division, within 72 hours and in writing within thirty days of the discharge of any substance listed in the application but not listed in the permit if the concentration or quantity of that substance exceeds two times the level listed in the application.

SECTION 10: COMPLIANCE SCHEDULE

(A) The Permittee shall conduct a comprehensive investigation into the potential sources of aquatic toxicity exceedances in DSN 008 (DSNs 001, 002, 003, 004, 005, and 006 discharge to DSN 008). The Permittee shall identify and evaluate remedial alternatives, propose a schedule, and implement actions necessary to comply with its aquatic toxicity limits in its NPDES permit in accordance with the following:

1) On or before 60 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 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 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 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, but not be limited to:

(a) Monthly acute aquatic toxicity testing for a three year period, such three year period consisting of three winters, i.e., December to March in each of three consecutive twelve month periods (the "study period") for DSNs 006 and 008 shall be performed. Mill water and canal water should also be screened for toxicity at the same time. All samples shall be analyzed at a minimum for

copper, zinc, aluminum, total suspended solids, total residual chlorine, and epichlorohydrin. Samples of DSN 006 shall also be analyzed for pH, BOD (5-day) and total oil and grease. Samples for DSN 008 shall also be analyzed for ammonia, bromine, formaldehyde, surfactants, total dissolved solids, total phenols, nitrate, nitrite, total nitrogen, total sulfate, nickel and lead. Aquatic toxicity exceedances at DSN 008 shall trigger a study of metals and solids in the contributing discharges (DSNs 001, 002, 003, 004, 005, and 006) and kymene (epichlorohydrin) usage.

(b) Annual reports shall be submitted to the Department on or before each April 30th, summarizing all testing results and investigations during the previous twelve months. If aquatic toxicity exceedances at DSN 008 occur during the first or second December to March periods, the Permittee shall initiate the actions specified in the approved scope of study and paragraph (A)(3) of this permit.

(c) If aquatic toxicity exceedances do not occur at DSN 008 during the three December to March periods of the study period, the Permittee shall be considered in compliance with the aquatic toxicity section.

3) On or before six (6) months after exceeding the aquatic toxicity limitations, 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(A)(2) that describes and evaluates alternative actions which may be taken by Permittee to insure 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 and Criteria 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.

(B) The Permittee shall submit to the Commissioner quarterly status reports beginning sixty 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 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 (A)(3) of this section.

(C) If 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 days after notice from the Commissioner that they are require.

(D) The Permittee shall perform the approved actions in accordance with the approved schedule, but in no event shall the approved actions be completed later than 1,200 days after the date of issuance of this permit. Within fifteen days after completing such actions, the Permittee shall certify to the Commissioner in writing that the actions have been completed as approved.

(E) The Permittee shall use best efforts to 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 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.

(F) 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 section of the permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this section of the permit means calendar day. Any document or action which is required by this section only of the permit, to be submitted, or performed, by a date which falls on, Saturday, Sunday, or, a legal Connecticut or federal holiday, shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or legal Connecticut or federal holiday.

(G) Notification of noncompliance. In the event that the Permittee becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this section of the permit or of any document required hereunder, the Permittee shall immediately notify the Commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is 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 that 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.

(H) Notice to Commissioner of changes. Within fifteen 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.

(I) 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:

Enna Herrera
Department of Environmental Protection
Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division79 Elm Street
Hartford, CT 06106-5127

This permit is hereby issued on **9/24/2009**

/S/AMEY W. MARRELLA
COMMISSIONER

AM/EH

Certification: Waiver of Monitoring

Attachment A

"Based on my inquiry of the person or persons directly responsible for managing compliance with the Effluent Limitations Representing the Degree of Effluent Reduction Attainable by the Application of the Best Available Technology Economically Achievable (BAT) 40 CFR 430.124 Pulp, Paper, and Paperboard Category. I certify that, to the best of my knowledge and belief, there has been no use of **pentachlorophenol** and **trichlorophenol** at the facility since filing of the last certification.

Authorized Official *:* _____ ***Title****:* _____

Signature*:*_____ ***Date****:*_____

DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: Ahlstrom Nonwovens LLC

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0000434 APPLICATION #: 200500900 FACILITY ID. 165-002

Mailing Address:						***Location Address:***					
Street:	*Two Elm Street*					***Street:***	*Canal Bank Road*				
City:	*Windsor Locks*	***ST:***	***CT***	***Zip:***	*06096*	***City:***	*Windsor Locks*	***ST:***	***CT***	***Zip:***	*06096*
Contact Name:	*Gary A. Jackson*					***DMR Contact***	*Gary A. Jackson*				
Phone No.:	*(860) 654-8556*					***Phone No.:***	*(860) 654-8556*				

PERMIT INFORMATION

DURATION *5 YEAR X 10 YEAR ___ 30 YEAR _____*

TYPE *New _ Reissuance X Modification ____*

CATEGORIZATION *POINT (X) NON-POINT ( ) GIS # __*

NPDES (X) PRETREAT () GROUND WATER(UIC) ( ) GROUND WATER (OTHER) ( )

NPDES MAJOR (MA) X
NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI) _____
NPDES or PRETREATMENT MINOR (MI) _____

PRETREAT SIGNIFICANT INDUS USER (SIU) _____
PRETREAT CATEGORICAL (CIU) _____
Note: If it's a CIU then check off SIU

POLLUTION PREVENTION MANDATE _ ENVIRONMENTAL EQUITY ISSUE _____

COMPLIANCE ISSUES

*COMPLIANCE SCHEDULE YES **X** NO (If yes check off what it is in relation to.)*
(to investigate the potential sources of the aquatic toxicity violations and tracer study in DSN 008)

POLLUTION PREVENTION ___ TREATMENT REQUIREMENT____WATER CONSERVATION

WATER QUALITY REQUIREMENT __ REMEDIATION __ OTHER _____

IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION? NO____ YES ___X
(see attached MEMO)

OWNERSHIP CODE

Private _X_ Federal __ State __ Municipal (town only) __ Other public ____

DEP STAFF ENGINEER *Kim Kisilis/Enna Herrera/Ken Major*

PERMIT FEES

Discharge Code	***DSN***	***Annual Fee***
101054Z	*006-1, 06C-1, 06E-1, 06F-1, 06G-1, 06I-1, 06K-1, 06L-1, 06M-1, 06N-1, 07A-1, 07B-1, 008-1*	*$ 8,175.00*
102000	*001-1, 002-1, 003-1, 004-1, 005-1*	*$2,040.00*
121000a (Approximation)	*012-1*	*$ 525.00*
1060000	*06N-1*	*$ 525.00*
1170000	*06N-1*	*$ 525.00*

FOR NPDES DISCHARGES

Drainage basin Code: 4000 *Present/Future Water Quality Standard: C/B*

NATURE OF BUSINESS GENERATING DISCHARGE

Paper mill producing nonwoven specialty paper products.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 001-1 *Consists solely of non-contact cooling water from the paper mill. This flow is a once-through system in which the cooling water is distributed from the water plant or from the city water, passed through the mill, and discharged through the diffuser, DSN 008-1.*

DSN 002-1 *Consists solely of non-contact cooling water from the paper mill. This flow is a once through system in which the cooling water is distributed from the water plant or from the city water, passed through the mill, and discharged through the diffuser, DSN 008-1.*

DSN 003-1 *Consists solely of excess hot water from paper machine non-contact cooling water processes and discharged through the diffuser, DSN 008-1.*

DSN 003A-1 *Overflow consists solely of excess hot water from paper machine non-contact cooling water processes. This is a discharge that occur seasonally when the Connecticut River level is higher than the DSN 003 tank. Once the river level drops to below tank level, the overflow ceases.*

DSN 004-1 *Consist of cooling water used to cool process rolls and equipment at the paper machines through a heat exchanger. This is a once through cooling system which water is taken from the canal, passed through the chest exchanger and discharged through the diffuser, DSN008-1.*

DSN 005-1 *Consist solely of cooling water for cooling in the fiber recovery system. This flow is a once through system in which the cooling water is taken from the canal, passed through fiber recovery, and discharged through the diffuser, DSN008-1.*

DSN 006-1 *Wastewater from the paper machines enter the wastewater sump where it is treated with polymers and aeration, allowing the solids to rise to the top and are skimmed off. The solids go to the screw press for water removal and clarified effluent is discharged through the diffuser, DSN008-1.*

DSN 06A-1 *Eliminated – The acid wastewater neutralizing process was removed.*

DSN 06B-1 *Eliminated – Paper machine # 1 was removed from site.*

DSN 06C-1 *Dechlorinated, neutralized wastewater from the bleachout of the wet end of paper machine #4. The discharge goes to DSN 006-1 (Krofta).*

DSN 06D-1 *Eliminated – Paper machine # 9 was removed from site.*

DSN 06E-1 *Dechlorinated, neutralized wastewater from the bleachout of the the wet end of paper machine #10. The discharge goes to DSN 006-1 (Krofta).*

DSN 06F-1 *Dechlorinated, neutralized wastewater from the bleachout of the wet end of paper machine #11. The discharge goes to DSN 006-1 (Krofta).*

DSN 06G-1 *Dechlorinated, neutralized wastewater from the bleachout of the wet end of paper machine #12. The discharge goes to DSN 006-1 (Krofta).*

DSN 06P-1 *New. Dechlorinated, neutralized wastewater from the bleachout of wet end of paper machine #15. The discharge goes to DSN 006-1 (Krofta).*

DSN 06H-1 *Eliminated – Paper machine # 1 was removed from site.*

DSN 06I-1 *Wastewater from the boilout (cleaning) of paper machine #4 by using caustic. The discharge goes to DSN 006-1 (Krofta). This water is neutralized to pH 6-9 with carbon dioxide as it enters the Krofta.*

DSN 06J-1 *Eliminated - Paper machine # 9 was removed from site.*

DSN 06K-1 *Wastewater from the boilout (cleaning) of paper machine #10 by using caustic. The discharge goes to DSN 006-1 (Krofta). This water is neutralized to pH 6-9 with carbon dioxide as it enters the Krofta.*

DSN 06L-1 *Wastewater from the boilout (cleaning) of paper machine #11 by using caustic. The discharge goes to DSN 006-1 (Krofta). This water is neutralized to pH 6-9 with carbon dioxide as it enters the Krofta.*

DSN 06M-1 *Wastewater from the boilout (cleaning) of paper machine #12 by using caustic. The discharge goes to DSN 006-1 (Krofta). This water is neutralized to pH 6-9 with carbon dioxide as it enters the Krofta.*

DSN 06P-1 *New. Dechlorinated, neutralized wastewater from the bleachout of the wet end of paper machine #15. The discharge goes to DSN 006-1 (Krofta).*

DSN 06Q-1 *New. Wastewater from the boilout (cleaning) of paper machine #15 by using caustic. The discharge goes to DSN 006-1 (Krofta). This water is neutralized to pH 6-9 with carbon dioxide as it enters the Krofta.*

DSN 06N-1 *Discharge consists of boiler blowdown, demineralizer regeneration, chemical area drains, acidic and basic discharges from the acid and caustic containment areas and truck connectors. All wastewaters are neutralized to 6-9 prior to discharge into DSN 006-1. The primary source of the discharge is demineralizer regeneration wastewater.*

DSN 007-1 *Eliminated – The effluent from Submerged Biological Contactors (SBCs) has been eliminated due to*

closure of the Pulp Mill.

DSN 07A-1 *Neutralized, dechlorinated wastewater resulting from the cleaning of equipment in the fiber recovery area by bleaching. Discharge directed to the Krofta treatment system (DSN 006).*

DSN 07B-1 *Wastewater resulting from the cleaning of fiber recovery equipment by using caustic. The pH is neutralized (5.5 to 9.5) using citric acid prior to discharge to the Krofta treatment system (DSN 006).*

DSN 008-1 *Combined discharge of non–contact cooling waters, raw canal water used for cooling and Krofta dissolved air flotation clarifier effluent are discharged through the diffuser pipe.*

DSN 008-1 *(Table P) In order to reduce tests duplication, this table was eliminated. All parameters were combined with Table L.*

DSN 010-1 *Eliminated – The non-contact cooling water from cogeneration plant is no longer in this permit because the cogeneration plant is no longer owned by Ahlstrom Windsor Locks LLC. It is owned by Algonquin Power, Permit No CT0026476.*

DSN 010-5 *Eliminated – The influent cooling water for cogeneration plant is not in this permit because the cogeneration plant is no longer owned by Ahlstrom Windsor Locks LLC. It is owned by Algonquin Power, Permit No CT0026476.*

DSN 011-1 *Eliminated - Combined pulp and paper sludge cake from the filter press was eliminated because a sludge is disposed of off-site.*

DSN 012-1 *Fire pump test water.*

RESOURCES USED TO DRAFT PERMIT

X *Federal Effluent Limitation Guideline* *40 CFR 430 Subpart L*
Tissue, filter, non-woven, and paperboard from purchased pulp subcategory.

__ *Performance Standards*

X *Federal Development Document* *Pulp, Paper and Paperboard Mills*
name of category

__ *Treatability Manual*

X *Department File Information*

X *Connecticut Water Quality Standards*

__ *Anti-degradation Policy*

__ *Coastal Management Consistency Review Form*

X *Other – Explain (See General Comments)*

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

X *BAT, Case-by-Case Determination, and Best Professional Judgment (See General Comments)*

DSN 001-1: total aluminum, pH, temperature, total residual chlorine, and zinc.

DSN 002-1: total aluminum, total manganese, pH, temperature, total residual chlorine, and zinc.

DSN 003-1: total aluminum, total manganese, pH, temperature, total residual chlorine, and zinc.

DSN 003A-1: total aluminum, total manganese, pH, temperature, total residual chlorine, and zinc.

DSN 004-1: total aluminum, iron, and manganese, pH, temperature, total suspended solids, and zinc.

DSN 005-1: total aluminum, iron, and manganese, pH, temperature, total suspended solids, and zinc.

DSN 006-1: BOD_5, total aluminum, copper, iron, and lead, epichlorohydrin, pH, total residual chlorine, total suspended solids, total oil and grease, and zinc.

DSNs 06C-1, 06E-1, 06F-1, 06G-1, 06P-1: dissolved oxygen, pH, temperature, total residual chlorine, and zinc.

DSNs 06I-1, 06K-1, 06L-1, 06M-1, 06Q-1: dissolved oxygen, pH, temperature, and total zinc.

DSN 06N-1: total copper, iron, and lead, pH, sulfate, temperature, total suspended solids, and zinc.

DSN 07A-1: dissolved oxygen, pH, and temperature.

DSN 07B-1: dissolved oxygen, pH, temperature, and total residual chlorine.

DSN 008-1: total aluminum, ammonia, BOD_5,bromine, epichlorohydrin formaldehyde, total iron, nickel, and lead, nitrate, nitrite, total nitrogen, anionic surfactans, (as MBAS), temperature, total dissolved solids and zinc, pH, dissolved oxygen, total suspended solids and phosphorous.

DSN 012-1: total aluminum, copper, and iron, pH, total suspended olids, residual chlorine, and zinc.

X *In order to meet in-stream water quality (See General Comments and Other Comments)*

DSN 003A-1: Aquatic Toxicity- NOAEL

DSN 006-1: pentachlorophenol and trichlorophenol (Section 22a-430-4(l)4(A)(xxiii) of the Regulations of Connecticut State Agencies.)

DSN 008-1: LC_{50}, total copper, lead, and residual chlorine. Please see General Comments below and refer to the attached memo dated 12/6/08 from Rosemary Gatter-Evarts to Kim Kisilis, which explains the development of the zone of influence.

DSN 012-1: Aquatic Toxicity -NOAEL

GENERAL COMMENTS

The need to include water quality based discharge limitations in this permit was evaluated to be consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria considering the zone of influence allocated to the facility where appropriate. The statistical procedures outlined in the EPA Technical Support Document for Water Quality based Toxics Control (EPA/505/2 90 001) were employed to calculate these limits. The calculated limits were then compared to the available effluent data. A comparison of the calculated limits to the effluent data suggests a statistical probability of exceeding such limits. Therefore, water quality based limits were included in this permit for copper.

OTHER COMMENTS

The Department has reviewed the original dye study submission on the diffuser constructed in 1993 and new documentation provided by the Permittee. This review has revealed that the results of the original study were affected by post-construction improvements (e.g. certain ports on the diffuser were blocked by construction material). A follow-up dye study in 1994 was done after the port obstructions were removed. However, the results of this study were flawed because of the original design of the scope. The Permittee has submitted a ZOI scope of study for the review of the Commissioner for DSN008. The Permittee has indicated their intention to request an amended ZOI based on the results of this study.

The differences between the effluent limitations and monitoring requirements of the existing permit and this permit renewal are as follows:

DSN 001-1 (Table A)

Aluminum, Total *- The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed EPICWW58 that contains aluminum is being used to generate this wastewater. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table A of this permit renewal.*

Total Residual Chlorine *(TRC) – The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that TRC was listed as being a concentration of at least 0.4 mg/l. This review also revealed that sodium hypochlorite that contains chlorine is being used to generate this wastewater. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table A of this permit renewal.*

pH – *To simplify continuous pH monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*
Temperature - *To simplify continuous temperature monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

DSN 002-1 (Table B)

Aluminum, Total *– The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that EPICWW58 that contains aluminum is being used to generate this wastewater. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table B of this permit renewal.*

Manganese, Total *– During the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, manganese was listed as being a concentration of at least 0.2 mg/l. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table B of this permit renewal.*

Total Residual Chlorine *(TRC) – The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that TRC was listed as being a concentration of at least 0.222 mg/l . This review also revealed that sodium hypochlorite that contains chlorine is being used to generate this*

wastewater. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table B of this permit renewal.

pH – *To simplify continuous pH monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

Temperature - *To simplify continuous temperature monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

DSN 003-1 (Table C)

Aluminum, Total *– The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that EPICWW58 that contains aluminum is being used to generate this wastewater. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table C of this permit renewal.*

Manganese, Total *– During the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, manganese was listed as being a concentration of at least 0.022 mg/l . DEP staff is recommending semi-annual monitoring requirements for this parameter in Table C of this permit renewal.*
Total Residual Chlorine *– The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that TRC was listed as being a concentration of at least 0.13 mg/l . This review also revealed that sodium hypochlorite that contains chlorine is being used to generate this wastewater. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table C of this permit renewal.*

Zinc, Total *– This discharge contributes flow to DSN 008-1 (combined facility discharge). Due to the reoccurrence of toxicity and elevated levels of zinc in DSN 008, and in order to provide more data for future evaluations, quarterly monitoring is included for the discharge.*

pH – *To simplify continuous pH monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

Temperature - *To simplify continuous temperature monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*
DSN 003A (Table C1)

When Connecticut River rises during flood conditions above the South Hot Non-Contact Cooling Water Tank, the Permittee is authorized to discharge these wastewaters directly to the Connecticut River. Samples shall be taken and results reported to the DEP. Aquatic Toxicity limits are included for this direct discharge to the Connecticut River.

DSN 004-1 (Table D)

Aluminum, Total *– During the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, aluminum was listed as being a concentration of at least 0.5 mg/l . DEP staff is recommending semi-annual monitoring requirements for this parameter in Table D of this permit renewal.*

Iron, Total *- The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that iron was listed as being a concentration of at least 0.9 mg/l. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table D of this permit renewal.*

Manganese, Total *– During the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, manganese was listed as being a concentration of at least 0.1 mg/l. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table D of this permit renewal.*

Total Suspended Solids *– The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting*

analytical results provided by the Applicant revealed that total suspended solids were listed as being a concentration of at least 25 mg/l. DEP staff is recommending semi-annual monitoring requirements for this parameter in Table D of this permit renewal.

pH – *To simplify continuous pH monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

Temperature - *To simplify continuous temperature monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

DSN 005-1 (Table E)

Aluminum, Total *– Based on the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, semi-annual monitoring requirements were added to this permit due to the potential for this constituent to be present in this discharge.*

Iron, Total *– During the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, iron was listed as being a concentration of at least 2.8 mg/l. DEP staff is recommending quarterly monitoring requirements for this parameter in Table E of this permit renewal.*

Manganese, Total *– During the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, manganese was listed as being a concentration of at least 0.8 mg/l. DEP staff is recommending quarterly monitoring requirements for this parameter in Table E of this permit renewal.*

Total Suspended Solids *– The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that total suspended solids were listed as being a concentration of at least 55 mg/l. DEP staff is recommending quarterly monitoring requirements for this parameter in Table E of this permit renewal.*

pH – *To simplify continuous pH monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

Temperature - *To simplify continuous temperature monitoring, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

DSN 006-1 (Table F)

Aluminum, Total *– During the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, aluminum was listed as being a concentration of at least 0.2 mg/l. DEP staff is recommending monthly monitoring requirements for this parameter in Table F of this permit renewal.*

Copper, Total *- Elevated copper effluent concentration results shown in the effluent toxicity reports for DSN 008-1 discharge. In order to provide more data for the future evaluations, monthly monitoring is added to this discharge.*

Iron, Total *– Based on the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, quarterly monitoring requirements were added to this permit.*

Lead, Total *– Based on the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, quarterly monitoring requirements were added to this permit.*

Total Residual Chlorine *– The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that sodium hypochlorite and calcium hypochlorite that contains chlorine are being used to generate this wastewater. DEP staff is recommending monthly monitoring requirements for this parameter in Table F of this permit renewal.*

Epichlorohydrin – *The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that chemical substances containing epichlorohydrin are used in generating the wastewater. DEP staff is recommending monthly monitoring requirements for this parameter in Table F of this permit renewal.*

Pentachlorophenol and Trichlorophenol *Wastewater discharges from the production of paperboards are regulated under 40 CFR 430, Pulp, Paper, and Paperboard Category. Section 430.124 identifies the following parameters for regulation: pentachlorophenol (pcp) and trichlorophenol (tcp) only if these chemicals are being used. DEP staff is recommending that Ahlstrom be authorized to forego monitoring of the two regulated pollutants. The Permittee shall attach an annual statement to the Discharge Monitoring Report (DMR) for the month of January, on a form provided (Attachment A), certifying there has been no use of pentachlorophenol and trichlorophenol at the facility. Additionally, in the event that any of these chemical parameters are found to be present or are expected to be present based on changes that occur in the Permittee's operations, the Permittee shall notify the Department and must immediately comply with the monitoring requirements provided in the Table F. Federal limitations for pcp and tcp were calculated in accordance with 40 CFR 430, Subparts L. However, the calculated values exceed the water quality based limits for DSN006-1.*

DSNs 06C-1, 06E-1, 06F-1, 06G-1, 06P-1 (Table G)

Dissolved Oxygen *– In order to reduce number of testing, each batch monitoring were reduced to twice per month.*

Zinc, Total *– This discharge contributes flow to DSN 008-1 (combined facility discharge). Due to the reoccurrence of toxicity and elevated levels of zinc in DSN 008, and in order to provide more data for future evaluations, monthly monitoring is included for this discharge.*

pH – *In order to provide more data for the future discharge evaluations, monthly monitoring were included to the discharge.*

DSNs 06I-1, 06K-1, 06L-1, 06M-1, 06Q-1 (Table H)

Dissolved Oxygen - *In order to provide more data for the future discharge evaluations, twice per month monitoring were included to the discharge.*

Zinc, Total *– This discharge contributes flow to DSN 008-1 (combined facility discharge). Due to the reoccurrence of toxicity and elevated levels of zinc in DSN 008, and in order to provide more data for future evaluations, monthly monitoring is included for this discharge.*

DSN 06N-1 (Table I)

Iron, Total *- Based on the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, monthly monitoring requirements were added to this permit due to the potential for this constituent to be present in this discharge.*

pH *– To simplify reporting, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

Sulfate, Total – *Monthly monitoring is included in the discharge, because chemical substances containing sulfur are used in generating the wastewater.*

Temperature *- To simplify reporting, reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

Total Copper, Lead, and Zinc- *Monthly monitoring requirements were added because of their presence in the boiler blowdown wastewater.*

DSN 07A-1 (Table J)

Reporting Frequency – *In order to provide more data for the future discharge evaluations, monthly monitoring reporting were included for the discharge.*

DSN 07B-1 (Table K)

Reporting Frequency – *In order to provide more data for the future discharge evaluations, monthly monitoring reporting were included for the discharge.*

DSN 008-1 (Table L)

Aquatic Toxicity Tests - *aquatic toxicity testing requirements were added to the Table L.*

Aluminum, Total – *Weekly monitoring was reduced to monthly.*

Biochemical Oxygen Demand (5 day) – *In order to provide more data for the future evaluations, twice per month monitoring for BOD (5-day) was included for this discharge.*

Copper, Total – *Water quality based limits for Cu were included as a result of performing the reasonable potential analysis. An assessment of the Ahlstrom' DMRs in the last two (2) years for copper and the reasonable potential analysis using The United States Environmental Protection Agency's Technical Support Document for Water Quality-Based Toxics Control determined that there is reasonable potential to exceed the instream copper guideline. According to this analysis, the maximum effluent concentration value for copper would be* ***586*** *ug/L, which exceeded the water quality based limit of* ***227*** *ug/L.*

Lead, Total – *Water quality based limits for lead were included in the draft permit. Please see below comments.*

Total Sulfate – *DMR results show low numbers. It is thought that this pollutant will not contribute to toxicity and because of that was not included in Table L.*

Total Residual Chlorine *– The technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that sodium hypochlorite and calcium hypochlorite that contain chlorine are being used to generate this wastewater. Therefore, case-by-case limits, using best professional judgment, are proposed for this parameter. DEP staff is recommending weekly monitoring requirements with limits be provided for TRC in Table L of this permit renewal.*

Total Suspended Solids *– In order to obtain a more accurate representation of this parameter, twice per month monitoring was included for this discharge.*

Total Dissolved Solids – *Weekly monitoring was reduced to monthly.*

Iron, Total - *Based on the technical review of Ahlstrom Nonwovens LLC's renewal application and supporting analytical results, monthly monitoring requirements were added to this permit due to the potential for this constituent to be present in this discharge.*

Nitrogen, Ammonia; Nitrogen, Nitrite; Nitrogen, Nitrate – *Quarterly monitoring is requirement of the toxicity testing protocol. Also, Table P was eliminated by consolidating the regular and toxicity tables.*

Nitrogen, Total – *In order to bring consistency in nitrogen monitoring, weekly monitoring was changed to quarterly.*

Bromine – *Quarterly monitoring is requirement of the toxicity testing. However, bromine oxidants are not used at Ahlstrom. Based on that fact, this pollutant was not included in Table L.*

Phosphorous, Total – *The current permit requires phosphorous quarterly monitoring for effluent toxicity. Quarterly monitoring for phosphorous was included to this discharge (DSN 008-1, Table L).*

Temperature – *Existing NPDES Permit specifies a maximum instantaneous limitations of 110^0F (from April through November of the year) and 95^0F (from December through March of the year). Because the temperature limits could be exceeded during the month of August for the reasons beyond Ahlstrom's control, Ahlstrom requested that maximum temperature limit for the month of August was modified from 110^0F to 115^0F. This permit recommends approval of this increase because the maximum flow was reduced from 11.293 mgd to 9.0 mgd. Further, there is a net decrease in heat load coming from DSN 008 discharge to the Connecticut River. This is consistent with the Connecticut Water Quality Standards and Criteria effective on December 17, 2002. Please see the attached memos dated 3/20/07 and 9/22/2008 from Art Mauger to Kim Kisilis for further details.*

Temperature - *To simplify continuous temperature monitoring, reporting monthly frequency was changed to continuous and reported measurement RDS (Range During Sampling) was changed to RDM (Range During Month).*

DSN 009-1 (Table M)

New flow monitoring requirements with limits for the combined discharge of non-contact cooling water for DSN001 through DSN005 were included in Table M of this revised draft permit.

Section 7: Limitations for Aquatic Toxicity Based on Actual Flows *– Based on Ahlstrom Nonwovens LLC request, this paragraph was added to the permit, which will provide the Permittee more flexibility with achieving compliance of the Maximum Daily Toxicity Limits in Section 5 Table L (DSN: 008-1).*

A Notice of Tentative Determination regarding this permit was initially published in the Hartford Courant on April 16, 2009. The draft permit which was the subject of the first notice contained a maximum daily flow of 10,241,100 gallons per day and included a compliance schedule of 90 days after permit issuance, which requires the applicant to conduct a study to address periodic aquatic toxicity effluent limitation exceedances and take remedial actions, as necessary, to ensure their discharges comply with the permit.

On May 14, 2009, during the comment period, the DEP received a letter from the Permittee requesting changes to the draft permit. The Bureau of Materials Management and Compliance Assurance staff has reviewed the written comments and recommends the following changes in the proposed permit. (Comments by Ahlstrom Nonwovens followed by DEP's response)

1. ***Add a new step in the compliance schedule to conduct a dye study during river low flow in 2009 (July-September period) in an attempt to obtain a greater zone of influence (80:1 dilution.) for DSN008-1.***

   DEP staff does not recommend including a new step in the compliance schedule to conduct a dye study since the Permittee will need to obtain a major permit modification to change the Zone of Influence (ZOI) for DSN008.

2. ***Change the proposed water quality based limits for pentachlorophenol and trichlorophenol in DSN006-1 to the categorical effluent limitations.***

   DEP staff does not agree with this comment. The limits for pentachlorophenol and trichlorophenol in the draft permit are water quality based. Federal categorical limits were calculated, but they are less stringent.

3. ***Delete the proposed water quality based limits for copper, lead, and total residual chlorine (TRC); reduce monitoring requirements for copper and lead; and delete the existing effluent limitations for total dissolved solids (TDS) in DSN008-1.***

DEP staff does not agree with Ahlstrom Nonwovens in deleting water quality based limits for lead in DSN008-1 as part of this application because this would constitute a less stringent permit that is subject to a thirty (30) day public notice. DEP staff is recommending that the limits remain in the permit since historical data indicates the Permittee can comply with them. When the permit is modified, we propose to examine the lead issue. DEP staff does not agree with Ahlstrom Nonwovens in deleting water quality based limits for copper in DSN008-1 because the reasonable potential analysis indicates that there is reasonable potential to exceed the instream copper guideline. According to this analysis, the maximum effluent concentration value for copper would be 586 ug/L, which exceeds the water quality based limit of 227 ug/L. Also, DEP staff does not agree with Ahlstrom Nonwovens in deleting water quality based limits for TRC in DSN008-1 because the technical review of the Ahlstrom Nonwovens LLC's renewal application and supporting analytical results provided by the Applicant revealed that sodium hypochlorite and calcium hypochlorite which contain chlorine are being used to generate this wastewater. Therefore, case-by-case limits, using best professional judgment, are proposed for TRC. DEP staff is recommending weekly monitoring requirements with limits be provided for TRC in Table L of this permit renewal. DEP staff does not agree with Ahlstrom Nonwovens in deleting existing effluent limits for TDS in DSN008-1 because this would constitute a less stringent permit that is subject to a thirty (30) day public notice. Also, DEP staff is not recommending any reduction in monitoring from the draft permit for copper, lead, and TRC. The frequency of monitoring is appropriate for this discharge.

4. ***Eliminate the internal non-contact cooling water flow limits for (DSN001 through DSN005); propose to reduce the average and maximum daily flow from 6.908 mgd and 10.241 mgd to 6.0 mgd and 9.0 mgd, respectively for DSN008; and propose a new Discharge Serial Number (DSN009) for monitoring flow from the combined discharge of non-contact cooling water for DSN001 through DSN005.***

DEP staff agrees with Ahlstrom Nonwovens's proposed changes in flow limitations and has revised Section 5 of the draft permit to eliminate internal non-contact cooling water flow limits (DSN001 through DSN005). Also, DEP staff has reduced the average and maximum daily flow from 6.908 mgd and 10.241 mgd to 6.0 mgd and 9.0 mgd, respectively for DSN008. Due to this reduction in the average monthly flow, the IWC was reduced from 2.4 % to 2.1 %, and the water quality based limits for copper, lead, total residual chlorine, and Aquatic Toxicity- LC50 for DSN008 were revised accordingly. Also, a new Discharge Serial Number (DSN009) was included in the draft permit for flow monitoring with flow limits for the combined discharge of non-contact cooling water for DSN001 through DSN005.

5. ***Delete the existing effluent limitations for pH in DSN07B-1, dissolved oxygen (DO) and TRC in DSN07A-1, and TRC at upstream contributory sources to DSN006-1 (DSN06C-1, 06E-1, 06F-1, 06G-1, 06P-1).***

DEP staff does not agree with this comment because this internal monitoring is necessary to assess the effectiveness of the system providing treatment to DSN 006.

6. ***Revise Section 3, Paragraph B to include the following "authorized agent", for completeness and clarify, "including the approval dated September 16, 1992 of the design of the outfall and diffuser for DSN008-1 to provide an effluent dilution of 65 to 1".***

DEP staff does not recommend changing Section 3, Paragraph B because this is standard permit language that applies to all wastewater discharge permits issued by DEP.

7. ***Change the sample types specified in the draft permit for bromine and epichlorohydrin from Daily Composite to Grab Sample Average (GSA); reduce the frequency of monitoring for bromine from weekly to quarterly; change the sample type for total residual chlorine from Range During Sampling ("RDS") to Grab Sample Average ("GSA") in DSN008-1.***

DEP staff agrees with Ahlstrom Nonwovens's proposed sampling changes. The sample types specified in the draft

permit for bromine and epichlorohydrin have been changed from Daily Composite to Grab Sample Average (GSA). The sample type for total residual chlorine has been changed from Range During Sampling ("RDS") to Grab Sample Average ("GSA") in DSN008-1. These corrections are being made to be consistent with appropriate testing protocol. The frequency of monitoring for bromine has been reduced from weekly to quarterly consistent with their existing permit.

Comments 8-17 relate to the compliance schedule in Section 10 of the draft permit.

8. ***Revise Section 10, Paragraph A to delete the first sentence; revise the second sentence by changing the phrase "aquatic toxicity violations" to "aquatic toxicity exceedances"; delete the phrase "is herein required" at the end of this sentence to read "shall be performed"; and delete "Further" from the beginning of the third sentence.***

   DEP staff agrees to delete the first sentence of Section 10, Paragraph (A), to revise in the second sentence the phrase "aquatic toxicity violations" to "aquatic toxicity exceedances", to delete the phrase "is herein required" at the end of this sentence, and to delete "Further" from the beginning of the third sentence.

9. ***Revise in Section 10, Paragraph A(1) the phrase "qualified professional engineer … Connecticut" by adding "and other appropriate professionals" or, in lieu of "qualified professional engineer … Commissioner", change to "one or more professionals with credentials and demonstrated competencies, who are acceptable to the Commissioner".***

   DEP staff does not recommend changing Section 10, Paragraph A(1) because this is standard permit language that applies to all wastewater discharge permits issued by DEP.

10. ***Revise Section 10, Paragraph A(2) by deleting 1) in the first phrase the word "violation" after "aquatic toxicity"; 2) the phrase "and implement actions necessary to comply with the NPDES permit"; and 3) in the second sentence, "but not be limited to".***

    DEP staff agrees to delete "violation" after "aquatic toxicity" in Section 10(A)(2) as requested by the Permittee. However, DEP staff is not recommending any further changes in this paragraph.

11. ***Revise Section 10, Paragraph A(2)(a) to include 1) the word "acute" after "monthly"; and 2) the phrase "for a three year period, such three year period consisting of three winters, i.e., December to March in each of three consecutive twelve month periods (the "study period")."***

    DEP staff agrees to revise the first sentence of Section 10(A)(2)(a) from "Monthly toxicity testing from December to March each year for DSNS 006 and 008 shall be performed," to "Monthly acute aquatic toxicity testing for a three year period, such three year period consisting of three winters, i.e., December to March in each of three consecutive twelve month periods (the "study period") for DSNS 006 and 008 shall be performed." This revision is for clarification purposes only.

12. ***Revise the second sentence of Section 10, Paragraph A(2)(b) to read "If (…) during the first or second December to March periods, the Permittee shall initiate the actions specified in the approved scope of study. These actions are in lieu of those required by Section 9, Paragraph (A) and (B)."***

    DEP staff agrees to revise the second sentence of Section 10(A)(2)(b) from "If (…) first or second winter, the Permittee shall initiate the investigation and remediation action plan in accordance with an approved scope of study and paragraph (A)(3) of this permit," to "If (…) during first or second December to March periods, the Permittee shall initiate the actions specified in the approved scope of study and paragraph (A)(3) of this permit." This revision is for clarification purposes only. DEP staff is not recommending any further changes in this paragraph.

13. ***Revise Section 10, Paragraph A(2)(c) to read "If aquatic … during the three December to March periods of the study period, the Permittee … section."***

DEP staff agrees to revise the second sentence of Section 10(A)(2)(c) from "If aquatic (…) during this study period (until 1,100 days after issuance of this permit, including three (3) winters), the Permittee (…) section" to "If aquatic (…) during the three December to March periods of the study period, the Permittee (…) section." This revision is for clarification purposes only.

14. ***Modify Section 10, Paragraph A(3)(a) to add "in accordance with the scope of study approved pursuant to Section 10(A)(2)," between "a comprehensive and thorough report that describes and" and "evaluates alternatives actions,"; and revise this paragraph to read "… including those alternatives identified in the approved scope of study specified in Section 10(A)(2)."***

    DEP staff agrees to revise Section 10, Paragraph A(3)(a) from "the Permittee shall (…) that describes (…). Such report shall:" to "the Permittee shall (…) in accordance with the scope of study approved pursuant to Section 10(A)(2) that describes (…). Such report shall:" DEP staff is not recommending any further changes in this paragraph.

15. ***Modify Section 10, Paragraph A(3)(e) to include this language "… engineering plans and specifications on any internal and/or end of pipe treatment facilities, if required, start and completion of any construction activities, and applying for and obtaining all permits and approvals required for such actions."***

    DEP staff does not recommend changing Section 10, Paragraph A(1) because this is standard permit language that applies to all wastewater discharge permits issued by DEP.

16. ***Revise Section 10, Paragraph B to read "For the duration of the study period and in lieu of actions required by Section 9, Paragraph (A) and (B), the Permittee shall submit quarterly status reports beginning sixty days after the date of approval of the scope of study referenced in Section 10(A)(2) above."***

    DEP staff does not recommend any changes to this section because this is standard permit language that applies to all wastewater discharge permits issued by DEP.

17. ***Revise Section 10, Paragraph D by deleting in the first sentence "but in no event shall the approved … of this permit."***

    DEP staff does not recommend any changes to this section because this is standard permit language that applies to all wastewater discharge permits issued by DEP.

18. ***Revise the Technical Fact Sheet as follows:***

    <u>Process and Treatment Description</u>: include pH adjustment in DSN006-1 and revise the phrase "influent to" to read "effluent from."

    <u>Basis for Limitations, Standards or Conditions</u>: revise this section to include a justification for inclusion of all constituents in the draft permit.

    <u>General Comments</u>: revise this section to include a justification for inclusion of water quality based limitations for copper, lead, and total residual chlorine (TRC) in DSN008-1.

    <u>Other Comments</u>: revise this section to include a justification for inclusion of aluminum, TRC, manganese, zinc, TSS, and iron monitoring in 001-1, 002-1, 003-1, 004-1, and 005-1. Include a justification for the inclusion of the new monitoring requirements in DSN006-1 and all contributory sources. Eliminate monitoring requirements for zinc in DSN003 and DSN008.

DEP has modified the fact sheet to address Ahlstrom Nonwovens LLC's comments and provided further clarification and explanation on the basis for the permit terms and conditions.

In addition, DEP staff has made the following revisions in the draft permit:

After review of the application and recent comments concerning the frequency of monitoring for certain pollutants and any new pollutants, DEP staff is recommending to reduce the frequency of monitoring for aluminum, bromine, iron, lead, manganese, total residual chlorine, total suspended solids, and zinc as follows:

Parameter	**Reduced Frequency**	**DSNs**
Aluminum	Monthly to Semi-annual	001, 002, 003
Iron	Monthly to Semi-annual	004
	Monthly to Quarterly	005, 006
Lead	Monthly to Quarterly	006
Manganese	Quarterly to Semi-annual	002, 003, 004
Total residual chlorine	Monthly to Semi-Annual	001,
	Quarterly to Semi-annual	002, 003
Total suspended solids	Quarterly to Semi-annual	004
Zinc	Monthly to Semi-annual	003
	Twice per Month to Monthly	06C-1, 06E-1, 06F-1, 06G-1, 06P-1, 06I-1, 06K-1, 06L-1, 06M-1, 06Q-1

A new remark was included in Table L for DSN008, which requires the Permittee to remove sediments in the Diffuser Aggregate Collection Tank during a plant-wide shutdown, at a minimum frequency of every 30 months.