

NPDES PERMIT

issued to

Sprague Paperboard, Inc.
P.O. Box 238
Versailles, CT 06383

Location Address:

Inland Road
Versailles, CT 06383

Facility ID: 133-002

Permit ID: CT0003751

Receiving Stream: Papermill Pond

Permit Expires: March 7, 2011

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

"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.

"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 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 February, May, August, and November.

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

"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.

"Semi-Annual" in the context of a sampling frequency, means the sample must be collected in the months of May and August.

"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 modification of the existing system or installation of a new system would protect the waters of the state from pollution. The Commissioner's decision is based on **application #200202848** for permit reissuance received on June 28, 2002 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 her 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 exceed a maximum instantaneous level of 103 °F. Further, the discharge shall not increase the temperature of the receiving stream above 85°F, or, in any case, raise the normal temperature of the receiving stream more than 4°F beyond a zone of influence as approved by the Commissioner on March 31, 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

Monitoring Site: 002-M		Monitoring Location: 7								
Intake Water Description: Papermill Pond outside the area potentially impacted by the discharge										
Monitoring Location Description: Intake building										
PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING				Minimum Level Test 2
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency 1	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency	Sample Type or measurement to be reported		
Aquatic Toxicity, Ceriodaphnia, dubia 3	%	NA	----	Quarterly	Daily Composite	NA	NR	NA		
Aquatic Toxicity, Pimephales promelas 3	%	NA	----	Quarterly	Daily Composite	NA	NR	NA		
Aluminum, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*	
Copper, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*	
Iron, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA		
Lead, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*	
Manganese, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA		
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab		
Suspended solids, Total	mg/l	NA	----	Quarterly	Daily Composite	NA	NR	NA		
Zinc, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*	

Remarks:

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

2 Minimum Level Test refers to Section 6 Paragraph 3 of this permit.

3 The results of the Toxicity Tests are recorded in % survival, however, the permittee shall report pass/fail on the DMR based on criteria in Section 6(C) of this permit.

Table B

Monitoring Site: 002-1		Monitoring Location: 1							
Wastewater Description: Bearing cooling waters from steam/electric, heat exchanger cooling water, Nash air compressor/ cooling water, boiler feed water tank overflow, vacuum pump seal water, Joy mill air compressor/cooling water, Mill air after cooling water, turbine generator lube system cooling water, Condenser cooling water, non process area storm water roof drain.									
Monitoring Location Description: Flume House		Receiving Stream: Papermill Pond							
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 ⁵	ug/l	200.0	340.0	Quarterly	Daily Composite	510.0	NR	Grab	*
Aluminum, Total ⁶	ug/l	96.0	102.0	Quarterly	Daily Composite	153.0	NR	Grab	*
Chlorine, Total Residual	ug/l	9.0	13.1	Monthly	Grab Sample Avg ⁴	19.7	NR	Grab	*
Copper, Total ⁵	ug/l	17.0	29.0	Quarterly	Daily Composite	39.0	NR	Grab	*
Copper, Total ⁶	ug/l	8.0	9.5	Quarterly	Daily Composite	14.3	NR	Grab	*
Duration of Discharge	hr/d	----	----	Weekly/Monthly	Hours	NA	NR	NA	
Flow, Average and Maximum	mgd	9.5	9.5	Daily/Monthly	Sec Remarks	NA	NR	NA	
Flow, Total	mgd	NA	9.5	Weekly/Monthly	Daily Flow	NA	NR	NA	
Iron, Total	ug/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	
Lead, Total	ug/l	1.0	2.0	Quarterly	Daily Composite	3.0	NR	Grab	*
Manganese, Total	ug/l	NA	----	Quarterly	Daily Composite	----	NR	Grab	

Oil and Grease, Total	mg/l	NA	15.0	Quarterly	Grab Sample Avg. 4	22.5	NR	Grab
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
Suspended solids, Total	mg/l	NA	----	Quarterly	Daily Composite	----	NR	Grab
Temperature	°F	NA	NA	NR	NA	103	Continuous	Instantaneous
Zinc, Total	ug/l	NA	----	Quarterly	Daily Composite	----	NR	Grab

Remarks:

- 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 3 of this permit.
- 4 Grab Sample Average for this discharge means the arithmetic average of all grab sample analyses. A minimum of three grab samples shall be collected over an operating day at equal intervals of no less than sixty (60) minutes.
- 5 The interim effluent quality limits for aluminum and copper shall apply from issuance date of this permit until 365 days after issuance.
- 6 The final effluent quality limits for aluminum and copper shall apply 365 days after issuance of this permit until permit expiration.

Table C

T						
Discharge Serial Number (DSN):002-1				Monitoring Location: T		
Wastewater Description: See Table B				Receiving Stream: Papermill Pond		
Monitoring Location Description: Flume House						
Allocated Zone of Influence (ZOI): 0 gph				In stream Waste Concentration (IWC): 100%		
PARAMETER	Units	Maximum Daily Limit	Maximum Instantaneous Limit	Sampling Frequency	Sample Type	Minimum Level Analysis See Section 6
Aluminum, Total ⁵	ug/l	340.0	NA	Quarterly	Daily Composite	*
Aluminum, Total ⁶	ug/l	102.0	NA	Quarterly	Daily Composite	*
Aquatic Toxicity, Ceriodaphnia, dubia ²	%	NOAEL> 100%	NA	Quarterly	Daily Composite	
Aquatic Toxicity, Pimephales promelas ²	%	NOAEL> 100%	NA	Quarterly	Daily Composite	
Aquatic Toxicity, Daphnia pulex ³	%	NA	NOAEL=100%	NA	Grab	
Aquatic Toxicity, Pimephales promelas ³	%	NA	NOAEL=100%	NA	Grab	
Chlorine, Total Residual	ug/l	43.1	20.0	Quarterly	Grab Sample Avg. ⁴	*
Copper, Total ⁵	ug/l	29.0	39.0	Quarterly	Daily Composite	*
Copper, Total ⁶	ug/l	9.5	14.3	Quarterly	Daily Composite	*
Iron, Total	ug/l	----	NA	Quarterly	Daily Composite	
Lead, Total	ug/l	2.0	3.0	Quarterly	Daily Composite	*
Manganese, Total	ug/l	----	NA	Quarterly	Daily Composite	
Nitrogen, Ammonia (total as N)	mg/l	----	NA	Quarterly	Daily Composite	
Nitrogen, Nitrate (total as N)	mg/l	----	NA	Quarterly	Daily Composite	
Nitrogen, Nitrite (total as N)	mg/l	----	NA	Quarterly	Daily Composite	
Oil & Grease, Total	mg/l	15.0	22.5	Quarterly	Grab Sample Avg. ⁴	
		--				
pH	S.U.	6.0 – 9.0	NA	Quarterly	Daily Composite	
Suspended Solids, Total	mg/l	----	NA	Quarterly	Daily Composite	
Zinc, Total	ug/l	----	NA	Quarterly	Daily Composite	*

Remarks:

Note: All analysis shall be on the same sample (except for chlorine and oil & grease samples).

¹The results of the Toxicity Tests are recorded in % survival, however, the Permittee shall report pass/fail on the DMR

² Compliance with this permit limit will be based on the first 48 hours of a valid chronic test, see Section 6 (C)(8).

³ Compliance with this permit limit will be based on Section 6(B).

⁴ Grab Sample Average for this discharge means the arithmetic average of grab sample analyses. A minimum of three grab samples shall be collected over an operating day at equal intervals of no less than sixty (60) minutes.

⁵ The interim effluent quality limits for aluminum and copper shall apply from issuance date of this permit until 365 days after issuance.

⁶ The final effluent quality limits for aluminum and copper shall apply 365 days after issuance of this permit until permit expiration.

Table D

Monitoring Site: 005-1		Monitoring Location: 1						
Wastewater Description: Fire Equipment Testing Water								
Monitoring Location Description: At Fire Equipment Pumps								
PARAMETER	UNITS	FLOW/TIME BASED MONITORING			INSTANTANEOUS MONITORING			Minimum Level Test ³
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ¹	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency ¹	
Aquatic Toxicity, <i>Daphnia pulex</i> 2	NA	NA	NA	NR	NA	NOAEL=100%	Annually	Grab
Aquatic Toxicity, <i>Pimephales promelas</i> 2	NA	NA	NA	NR	NA	NOAEL=100%	Annually	Grab
Copper, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab
Flow, Total	Gpd	100,000	100,000	Quarterly	Daily Flow	NA	NR	NA
Iron, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab
Lead, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab
Nitrogen, Ammonia (total as N)	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
pH	S.U.	NA	NA	NR	NA	6.0 - 9.0	Quarterly	Grab
Temperature	°F	NA	NA	NR	NA	----	Quarterly	Grab
Suspended Solids, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab
Zinc, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab

Remarks:

- ¹ The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample Frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.
- ² Compliance with this permit limit will be based on Section 6(B).
- ³ Minimum Level Test refers to Section 6 Paragraph 3 of this permit.
- ⁴ The results of the Toxicity Tests are recorded in % survival, however, the permittee shall report pass/fail on the DMR.

- (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 Code of Federal Regulations, Part 136 of title 40 (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, B, and C. Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

<u>Parameter</u>	<u>Minimum Level</u>
Aluminum	10.0 ug/L
Chlorine, total residual	20.0 ug/L
Copper	5.0 ug/L
Lead	5.0 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.

(B) Acute Aquatic Toxicity Test (grab samples only)

- (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 Table C 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 36 hours of sample collection
- (2) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (invertebrate) above 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) above 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) For Aquatic Toxicity Limits and for monitoring only conditions, 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.

- (b) Organisms shall not be fed during the tests.
 - (c) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.
 - (d) 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 shall be determined as follows:
- (a) 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 greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at the specified CTC.
- (C) The permittee shall conduct quarterly chronic toxicity tests of DSN002-1 in accordance with the following specifications.
- (1) Chronic toxicity testing of the discharge shall be conducted four times per year. Representative samples of the respective effluents shall be collected in February, May, August and November.
 - (2) Single concentration, static renewal chronic toxicity tests 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 40CFR 136 for Ceriodaphnia survival and reproduction and Fathead Minnow larval survival and growth.
 - (3) Composite samples of discharge DSN 002-1, and intake and grab samples of Papermill Pond water collected outside the influence of DSN 002-1 for use as a site control water shall be collected on day 0, day 2, and day 4 of the test. Chronic toxicity analyses shall also be performed on a laboratory water control sample. Samples shall not be dechlorinated, pH or hardness adjusted, or chemically altered in any way.
 - (4) Test solutions shall be renewed daily. Sample 1 shall be used for days 1 and 2 of the test, sample 2 shall be used for days 3 and 4, and sample 3 shall be used for the remainder of the test. In no case shall samples of DSN 002-1 or intake or control water be held longer than 24 hours prior to their first use as a test solutions.
- (4) All samples of the discharge and intake and the Papermill Pond water used in the chronic toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in section 6(A) of this permit for the following parameters:

Aluminum, Total	Manganese, Total
pH	Copper (Total recoverable and dissolved)
Hardness	Lead, (Total recoverable and dissolved)
Alkalinity	Nickel (Total recoverable and dissolved)
Conductivity	Zinc, (Total recoverable and dissolved)
Chlorine, (Total residual)	Iron, Total
Nitrogen, Ammonia (Total as N)	Solids, Total Suspended
Nitrogen, Nitrite (Total as N)	Nitrogen, Nitrate (Total as N)

- (7) A reference toxicant test shall be conducted with each chronic toxicity monitoring test using sodium chloride with an acute LC50 as the endpoint.
- (8) Compliance with the aquatic toxicity limit specified in Section 5 Table C shall be demonstrated when the 48 hour results of a valid chronic toxicity test in which control test organism survival exceeds 80% for all replicates combined and the discharge(s) demonstrate(s) no significant increase in mortality of the test organisms exposed to the discharge in comparison to those exposed to the control water as indicated by a one tailed test at an alpha level of 0.05.
- (9) If any chronic toxicity result indicates a significant increase in mortality of test organisms between samples of DSN 002-1 and the site water control at the completion of the test, the permittee shall notify the Department and submit to the Department within 30 days of conclusion of the test a brief summary of test results. This summary shall include at a minimum, percent survival in each replicate test chamber and all supporting chemical and physical measurements performed in association with the toxicity test.

SECTION 7: REPORTING REQUIREMENTS

- (A) The results of chemical analyses and any aquatic toxicity test required above shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Water Management (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 Water Management (Attn: DMR Processing)
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

- (B) Complete an accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, LOEC and NOEC for survival, growth and/or reproduction and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, including measured daily flow and hours of operation for the 30 consecutive operating days prior to sample collection if compliance with a limit on Aquatic Toxicity is based on toxicity limits based on actual flows described in Section 7, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Management at the following address. The ATMR shall be received at this address within 60 days of test completion.

Bureau of Water Management (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 8: 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 Management (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 Management (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 Water Management, 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 9: COMPLIANCE SCHEDULE

- (A) The Permittee shall achieve compliance with the final copper and aluminum effluent limitations in Section 5, Table B and C as soon as possible but in no event later than 365 days after the date of issuance of this 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, 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 achieve compliance with Section 5 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, Respondent shall submit for the Commissioner's review and written approval a scope of study for an investigation of alternative remedial actions to allow the permittee to meet final copper and aluminum effluent limitations specified in Tables B and C. The scope of study shall include a substantive plan and schedule, for the Commissioner's review and written approval, for conducting the investigation, reporting to the Commissioner on the results of such investigation, and implementation of the preferred alternative, including an evaluation of which alternatives are prudent and feasible.
 - (3) On or before 180 days after the date of issuance of this permit, the Permittee shall submit for the Commissioner's review and written approval a comprehensive and thorough report in accordance with the approved scope of study which describes and evaluates alternative actions which may be taken by

the Permittee to achieve compliance with the limitations in Section 5 of this permit. Such report shall:

- (a) Identify and evaluate alternative actions to achieve compliance with Section 5 limits including, but not limited to, pollutant source reduction, process changes/innovations, chemical substitutions, recycle and zero discharge systems, water conservation measures, and other internal and/or end-of-pipe treatment technologies;
 - (b) state in detail the most expeditious schedule for performing each alternative;
 - (c) list all permits and approvals required for each alternative, including but not limited to any permits required under sections 22a-32, 22a-42a, 22a-342, 22a-361, 22a-368 or 22a-430 of the 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 9(A)(2) 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)(2) of this section.
- (C) If the investigation carried out under an approved scope of study does not fully address the requirements of this permit and protect surface waters from pollution to the satisfaction of the Commissioner, additional investigation shall be performed in accordance with a supplemental plan and schedule approved in writing by the Commissioner. Unless otherwise specified in writing by the Commissioner, the supplemental plan and schedule shall be submitted for the Commissioner's review and written approval on or before thirty days after notice from the Commissioner that they are required.
- (D) The Permittee shall perform the approved actions in accordance with the approved schedules, but in no event shall the approved actions be completed later than 365 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 notified 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 Connecticut or federal holiday, shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or Connecticut or federal holiday.

- (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:

Kim Kisilis
Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127

This permit is hereby issued on 3/8/06.

GINA MCCARTHY
Gina McCarthy
Commissioner

GM/kk

DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: Sprague Paper Board, Inc.

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0003751 APPLICATION #: 200202848 FACILITY ID. 133-002

Mailing Address:				Location Address:							
Street:	Inland Road, P.O. Box 238			Street:	Inland Road						
City:	Versailles	ST:	CT	Zip:	06383	City:	Versailles	ST:	CT	Zip:	06383
Contact Name:	Mike LaPorte			DMR Contact	Mike LaPorte						
Phone No.:	(860) 823-3631			Phone No.:	(860) 823-3631						

PERMIT INFORMATION

DURATION 5 YEAR 10 YEAR ___ 30 YEAR ___

TYPE New ___ Reissuance Modification ___

CATEGORIZATION POINT (X) NON-POINT () GIS # ___

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

 NPDES MAJOR (MA)

 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 NO (If yes check off what it is in relation to.)

POLLUTION PREVENTION TREATMENT REQUIREMENT ___ WATER CONSERVATION ___

WATER QUALITY REQUIREMENT REMEDIATION ___ OTHER ___

IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION? NO X YES

OWNERSHIP CODE

Private X Federal State Municipal (town only) Other public

DEP STAFF ENGINEER Kim Kisilis

PERMIT FEES

Discharge Code	DSN	Annual Fee
102000d	002-1	\$2,040

Note: Annual Fee 50% increase applied

FOR NPDES DISCHARGES

Drainage basin Code: 3805 Present/Future Water Quality Standard: B/A

NATURE OF BUSINESS GENERATING DISCHARGE

Recycled paper products (newspaper and cardboard)

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 002-1 Consists of non-contact cooling waters from facility activities.

RESOURCES USED TO DRAFT PERMIT

- Federal Effluent Limitation Guideline 40CFR430 Pulp, Paper and Paperboard
name of category
- Performance Standards
- Federal Development Document _____
Pulp, Paper and Paperboard Wastewater
- Treatability Manual
- Department File Information
- Connecticut Water Quality Standards
- Anti-degradation Policy

Coastal Management Consistency Review Form

Other - Explain

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

Best Professional Judgment (See Other Comments)

Case-by-Case Determination (See Other Comments)

GENERAL COMMENTS

Water quality based discharge limitations were included in this permit for consistency 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 (acute and chronic) and human health (fish consumption only) 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 the limits. The most restrictive of the water quality limitations, aquatic life acute, aquatic life chronic, and human health, was compared with limitations developed according to State and Federal Best Available Technology (BAT). Where the water quality based limitations were more restrictive than BAT, the water quality based limitation for Total Residual Chlorine was included in the permit.

OTHER COMMENTS

Performance based limits for Al, Cu, and Pb are based on the concentrations found in the non-chronically toxic samples.

Interim limits for aluminum and copper are performance based utilizing actual averages and 95th percentile occurrence probability.

A Case-by-Case Determination using the criteria of Best Professional Judgment was used to evaluate these wastewater discharges and intake water. In order to provide more data for the future discharge evaluations the following changes were made:

Monitoring Site 002-M (Table A, Papermill Pond Intake)

Monitoring for aquatic toxicity, iron, manganese and total suspended solids were added to this permit.

DSN 002-1 (Table B)

Limits for aluminum, copper, lead and monitoring for iron, manganese, total suspended solids and zinc were added to this permit.

DSN 002-1 (Table C)

Monitoring for aquatic toxicity (grab), iron, manganese, nitrogen (ammonia), nitrogen (nitrate), nitrogen (nitrite) and total suspended solids were added to this permit.

DSN 005-1 (Table D)

Monitoring for aquatic toxicity (grab), copper, iron, lead, nitrogen (ammonia), total suspended solids and zinc were added to this permit.

DSN 007-1 (Table E, Paper Sludge from Drying Beds)

This discharge was eliminated because the sludge currently is going through a filter press and to a landfill. Historically, the facility used earthen sludge drying beds, as documented in the previous permit.