

**PRETREATMENT PERMIT**  
issued to

Rand-Whitney Containerboard, L.P.  
(of The Kraft Group, LLC)

**Location Address:**

370 Route 163  
Montville, Connecticut 06353

Facility ID: **086-049**

Permit ID: **SP0002032**

Permit Expires: **November 14, 2017**

**SECTION 1: GENERAL PROVISIONS**

- (A) This permit is re-issued 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 a modified Memorandum of Agreement ("MOA") dated June 3, 1981, by the Administrator of the United States Environmental Protection Agency which authorizes the State of Connecticut to administer a Pretreatment Program pursuant to 40 CFR Part 403.
- (B) **RAND-WHITNEY CONTAINERBOARD, L.P.** ("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)(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. Specifically, civil penalties of up to twenty-five thousand dollars may be assessed per violation per day.
- (D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with Section 22a-6, under Section 53a-157b of the CGS.
- (E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection ("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) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (G) 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.
- (H) This permitted discharge is consistent with the applicable goals and policies of the Connecticut Coastal Management Act (section 22a-92 of the Connecticut General Statutes).

#### **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 Sections 22a-430-3(a) and 22a-430-6 of the RCSA.
- (B) In addition to the above, the following definitions shall apply to this permit:

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

"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.

"Chlorophenolic-containing Biocides" are biocides that contain either pentachlorophenol or trichlorophenol compounds.

"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 generated during an operating day.

"Department" means the Department of Energy and Environmental Protection.

"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.

"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".

"Quarterly" means in the months of March, June, September, and December.

"Range During Sampling" or "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 shall mean the maximum and minimum readings recorded with the continuous monitoring device during the Composite or Grab Sample Average sample collection.

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

"Semi-Annual" means in the months of June and December.

### **SECTION 3: COMMISSIONER'S DECISION**

- (A) The Commissioner has made a final determination and found that the continuance of the existing system to treat the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on Application No. 199902202 for permit reissuance received on June 30, 1999 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 as follows:
  - (1) From the issuance of this permit through and including October 31, 2012, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. SP0002032, issued by the Commissioner to the Permittee on December 29, 1994, the previous application submitted by the Permittee on August 5, 1992, and all modifications and approvals

issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. SP0002032, issued by the Commissioner to the Permittee on December 29, 1994.

- (2) From December 1, 2012 until this permit expires or is modified or revoked, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. SP0002032, issued by the Commissioner to the Permittee on the issuance date noted on the signature page of this permit, Application No. 199902202 received by the Department on June 30, 1999, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with Permit No. SP0002032, issued by the Commissioner to the Permittee on the issuance date noted on the signature page of 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 that may be authorized under the Federal Clean Water Act or the Connecticut General Statutes 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 Connecticut General Statutes or regulations adopted thereunder which are then applicable.

#### **SECTION 4: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- (A) The discharges shall not exceed and shall otherwise conform to specific terms and conditions listed below. The discharges are restricted by, and shall be monitored in accordance with, the tables below.
- (B) All samples shall be comprised of only those wastewaters identified in the tables. Therefore, samples shall be taken prior to combination with wastewaters of any other type and after all approved treatment units, if applicable. All samples taken shall be representative of the discharge during standard operating conditions.
- (C) In cases where limits and sample type are specified but sampling is not required, the limits specified shall apply to all samples which may be collected and analyzed by, the Department of Energy and Environmental Protection personnel, the Permittee, or other parties.

**Table A**

(THE REQUIREMENTS OF THIS TABLE ARE IN EFFECT FROM PERMIT ISSUANCE UNTIL SIX MONTHS AFTER THE START-UP DATE OF THE SYSTEM DESCRIBED IN PARAGRAPH 8(E))

Discharge Serial Number: **001-A**Monitoring Location: **0**

Wastewater Description: *Stock cleaning wastewaters including rejects from: Posiflow Cleaners, Uniflow Cleaners, Screening Wastewaters, Stock Prep Cleaners; Clarifier Building Wastewater, DAF Rejects, Building Fordrinier Wastewater, Press Wastewater, Whitewater, Compactor Filtrate, Wash-up Water, Press Shower Overspray/Machine Shower Water, AES Filter Backwash Water, Potentially-contaminated Stormwater, Boilout Wastewaters, Screw Press Filtrate, Boiler Regeneration Backwash Water, Cooling Tower Blowdown, Non-contact Cooling Water, Seal Water, Condensate from Steam System, Boiler Water Treatment System Wastewaters, Starch Make-down System Flush Water, Tank and Chest Cleaning Wastewaters*

Monitoring Location Description: **Temperature:** Before the heat exchangers; **Flow:** Flowmeter in the Clarifier Building; **Other:** At the sampling location prior to the DAFs

Discharge is to: **DSN 001**

PARAMETER	UNITS	FLOW/TIME-BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level <sup>3</sup>
		Average Monthly Limit	Maximum Daily Limit	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	
Flow, Instantaneous	gpm	---	---	Continuous	Daily Flow	NA	NR	NA	
Flow Rate (Average Daily) <sup>1</sup>	gpd	---	NA	Continuous	Daily Flow	NA	NR	NA	
Flow, Maximum during 24 hr period <sup>1</sup>	gpd	NA	---	Continuous	Daily Flow	NA	NR	NA	
Flow (Day of Sampling)	gpd	NA	---	Twice/Week	Daily Flow	NA	NR	NA	
Temperature, Daily Average (June 1-September 30)	° F	NA	NA	NR	NA	---	Continuous	Calculated <sup>4</sup>	
Temperature, Maximum (June 1-September 30)	° F	NA	NA	NR	NA	---	Continuous	Continuous <sup>5</sup>	
Temperature, Daily Average (October 1-May 31)	° F	NA	NA	NR	NA	---	Continuous	Calculated <sup>4</sup>	
Temperature, Maximum (October 1-May 31)	° F	NA	NA	NR	NA	---	Continuous	Continuous <sup>5</sup>	
Total Suspended Solids (TSS)	mg/l	---	---	Twice/Week	Daily Composite	NA	NR	NA	

**TABLE A FOOTNOTES AND REMARKS**

**Footnotes:**

<sup>1</sup> For this parameter the Permittee shall maintain at the facility a record of the Total Daily Flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each month.

<sup>2</sup> The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' 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'.

<sup>3</sup> Minimum levels specified in this table represent the concentrations at which quantification must be achieved and verified during the chemical analyses for those noted parameters. 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.

<sup>4</sup> This value must be calculated by summing every temperature reading obtained during the "day" and dividing that value by the number of temperature readings taken in that "day". Report the highest average monthly value on the DMR.

<sup>5</sup> Report the maximum instantaneous value on the DMR.

**Remarks:**

1. Abbreviations used for units are as follows: gpd means gallons per day; gpm means gallons per minute; mg/L means milligrams/liter; SU means Standard Units; °F means degrees Fahrenheit. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable; RDS means Range During Sampling.

2. Collection of the influent sample shall precede collection of the effluent sample by one detention period. The operating record shall note the time that the influent and effluent samples are taken.

3. Supplemental discharge monitoring data shall be entered on Appendix A of this permit and submitted in accordance with the Reporting Requirements in Section 5 of this permit.

Table B

(THE REQUIREMENTS OF THIS TABLE ARE IN EFFECT FROM PERMIT ISSUANCE UNTIL SIX MONTHS AFTER THE START-UP DATE OF THE SYSTEM DESCRIBED IN PARAGRAPH 8(E))

Discharge Serial Number: 001-1

Monitoring Location: 1

Wastewater Description: *Stock cleaning wastewaters including rejects from: Posiflow Cleaners, Uniflow Cleaners, Screening Wastewaters, Stock Prep Cleaners; Clarifier Building Wastewater, DAF Rejects, Building Fordrinier Wastewater, Press Wastewater, Whitewater, Compactor Filtrate, Wash-up Water, Press Shower Overspray/Machine Shower Water, AES Filter Backwash Water, Potentially-contaminated Stormwater, Boilout Wastewaters, Screw Press Filtrate, Boiler Regeneration Backwash Water, Cooling Tower Blowdown, Non-contact Cooling Water, Seal Water, Condensate from Steam System, Boiler Water Treatment System Wastewaters, Starch Make-down System Flush Water, Tank and Chest Cleaning Wastewaters*

Monitoring Location Description: **Temperature:** After the last heat exchanger; **pH:** pH meter between the CTM and the DAFs; **Flow:** Flow meter in the Clarifier Building; **Other:** At the sampling location after the DAFs

Discharge is to: **Town of Montville Water Pollution Control Facility**

PARAMETER	UNITS	FLOW/TIME-BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level <sup>3</sup>
		Average Monthly Limit	Maximum Daily Limit	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	lb/day	14,000	18,700	Twice/Week	Daily Composite	NA	NR	NA	
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	mg/l	---	---	Twice/Week	Daily Composite	NA	NR	NA	
Cyanide, Total	mg/l	---	---	Semi-annual	Daily Composite	NA	NR	NA	
Flow Rate (Average Daily) <sup>1</sup>	gpd	1,080,000	NA	Continuous	Daily Flow	NA	NR	NA	
Flow, Maximum during 24 hr period <sup>1</sup>	gpd	NA	1,100,000	Continuous	Daily Flow	NA	NR	NA	
Flow (Day of Sampling)	gpd	NA	1,100,000	Twice/Week	Daily Flow	NA	NR	NA	
Flow, Instantaneous	gpm	---	---	Continuous	Daily Flow	NA	NR	NA	
Oil & Grease, Total	mg/l	75	100	Weekly	Grab Sample Average	NA	NR	NA	
Pentachlorophenol	µg/L	ND	ND	Semi-annual	Daily Composite	NA	NR	NA	5
pH, Day of Sampling	SU	NA	NA	NR	NA	6.0 to 10.0	Twice/Week	RDS	
pH, Maximum	SU	NA	NA	NR	NA	10.0	Continuous	Continuous	
pH, Minimum	SU	NA	NA	NR	NA	6.0	Continuous	Continuous	
Phenols, Total	mg/l	---	---	Semi-annual	Daily Composite	NA	NR	NA	
Sulfate, Total	mg/l	---	---	Monthly	Daily Composite	NA	NR	NA	
Temperature, Daily Average (June 1-September 30)	° F	NA	NA	NR	NA	95	Continuous	Calculated <sup>4</sup>	
Temperature, Daily Maximum (2-Hour Rolling Average) (June 1-September 30)	° F	NA	NA	NR	NA	105 <sup>7</sup>	Continuous	Calculated <sup>5</sup>	
Temperature, Daily Average (October 1-May 31)	° F	NA	NA	NR	NA	95	Continuous	Calculated <sup>4</sup>	
Temperature, Maximum per Day (October 1-May 31)	° F	NA	NA	NR	NA	117 <sup>7</sup>	Continuous	Continuous <sup>6</sup>	
Total Dissolved Solids (TDS)	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Total Suspended Solids (TSS)	lb/day	4,350	5,750	Twice/Week	Daily Composite	NA	NR	NA	
Total Suspended Solids (TSS)	mg/l	---	---	Twice/Week	Daily Composite	NA	NR	NA	
2,4,5-Trichlorophenol	µg/L	ND	ND	Semi-annual	Daily Composite	NA	NR	NA	2.5
2,4,6-Trichlorophenol	µg/L	ND	ND	Semi-annual	Daily Composite	NA	NR	NA	2.5

## **TABLE B FOOTNOTES AND REMARKS**

### **Footnotes:**

- <sup>1</sup> For this parameter the Permittee shall maintain at the facility a record of the Total Daily Flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each month.
- <sup>2</sup> The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' 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'.
- <sup>3</sup> Minimum levels specified in this table represent the concentrations at which quantification must be achieved and verified during the chemical analyses for those noted parameters. 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.
- <sup>4</sup> This value must be calculated by summing every temperature reading obtained during the "day" and dividing that value by the number of temperature readings taken in that "day". Report the highest average daily value on the DMR.
- <sup>5</sup> Report the highest two-hour average temperature recorded over a "day". The data used for the two-hour averaging shall be collected once every minute. Data collected over a period that overlaps a month shall be counted in the month that includes the higher number of data points in the two-hour averaging period.
- <sup>6</sup> Report the maximum instantaneous value (i.e., the result of any individual sample).
- <sup>7</sup> These are interim limits only. Final limits will be established in accordance with Paragraph 8(F) of the permit.

### **Remarks:**

1. Abbreviations used for units are as follows: gpd means gallons per day; gpm means gallons per minute; mg/L means milligrams/liter; µg/l means micrograms/liter; lbs/day means pounds per day; SU means Standard Units; °F means degrees Fahrenheit. Other abbreviations are as follows: NA means Not Applicable; ND means Non-Detectable; NR means Not Reportable; RDS means Range During Sampling.
2. Supplemental discharge monitoring data shall be entered on Appendix A of this permit and submitted in accordance with the Reporting Requirements in Section 5 of this permit.
3. The maximum daily BOD<sub>5</sub> limit of 18,700 lbs/day is a five-year temporary limit.



**Table C**

(THE REQUIREMENTS OF THIS TABLE ARE IN EFFECT SIX MONTHS AFTER START-UP DATE OF THE SYSTEM DESCRIBED IN PARAGRAPH 8(E) UNTIL PERMIT EXPIRATION)

Discharge Serial Number: **001-A**

Monitoring Location: **0**

Wastewater Description: *Stock cleaning wastewaters including rejects from: Posiflow Cleaners, Uniflow Cleaners, Screening Wastewaters, Stock Prep Cleaners; Clarifier Building Wastewater, DAF Rejects, Building Fordrinier Wastewater, Press Wastewater, Whitewater, Compactor Filtrate, Wash-up Water, Press Shower Overspray/Machine Shower Water, AES Filter Backwash Water, Potentially-contaminated Stormwater, Boilout Wastewaters, Screw Press Filtrate, Boiler Regeneration Backwash Water, Cooling Tower Blowdown, Non-contact Cooling Water, Seal Water, Condensate from Steam System, Boiler Water Treatment System Wastewaters, Starch Make-down System Flush Water, Tank and Chest Cleaning Wastewaters*

Monitoring Location Description: **"Influent Monitoring Location"**

Discharge is to: **DSN 001**

PARAMETER	UNITS	FLOW/TIME-BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level <sup>3</sup>
		Average Monthly Limit	Maximum Daily Limit	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	mg/l	---	---	Twice/Week	Daily Composite	NA	NR	NA	
Flow, Instantaneous	gpm	---	---	Continuous	Daily Flow	NA	NR	NA	
Flow Rate (Average Daily) <sup>1</sup>	gpd	---	NA	Continuous	Daily Flow	NA	NR	NA	
Flow, Maximum during 24 hr period <sup>1</sup>	gpd	NA	---	Continuous	Daily Flow	NA	NR	NA	
Flow (Day of Sampling)	gpd	NA	---	Twice/Week	Daily Flow	NA	NR	NA	
pH, Day of Sampling	SU	NA	NA	NR	NA	---	Twice/Week	RDS	
pH, Maximum	SU	NA	NA	NR	NA	---	Continuous	Continuous	
pH, Minimum	SU	NA	NA	NR	NA	---	Continuous	Continuous	
Soluble BOD <sub>5</sub>	mg/L	---	---	Twice/Week	Daily Composite	NA	NR	NA	
Sulfate, Total	mg/L	---	---	Monthly	Daily Composite	NA	NR	NA	
Temperature, Daily Average (June 1-September 30)	° F	NA	NA	NR	NA	---	Continuous	Calculated <sup>4</sup>	
Temperature, Maximum (June 1-September 30)	° F	NA	NA	NR	NA	---	Continuous	Continuous <sup>5</sup>	
Temperature, Daily Average (October 1-May 31)	° F	NA	NA	NR	NA	---	Continuous	Calculated <sup>4</sup>	
Temperature, Maximum (October 1-May 31)	° F	NA	NA	NR	NA	---	Continuous	Continuous <sup>5</sup>	
Total Suspended Solids (TSS)	mg/l	---	---	Twice/Week	Daily Composite	NA	NR	NA	

### TABLE C FOOTNOTES AND REMARKS

#### Footnotes:

- <sup>1</sup> For this parameter the Permittee shall maintain at the facility a record of the Total Daily Flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each month.
- <sup>2</sup> The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' 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'.
- <sup>3</sup> Minimum levels specified in this table represent the concentrations at which quantification must be achieved and verified during the chemical analyses for those noted parameters. 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.
- <sup>4</sup> This value must be calculated by summing every temperature reading obtained during the "day" and dividing that value by the number of temperature readings taken in that "day". Report the highest average monthly value on the DMR.
- <sup>5</sup> Report the maximum instantaneous value on the DMR.

#### Remarks:

- 1: Abbreviations used for units are as follows: gpd means gallons per day; gpm means gallons per minute; mg/L means milligrams/liter; SU means Standard Units; °F means degrees Fahrenheit. Other abbreviations are as follows: NA means Not Applicable; NR means Not Reportable; RDS means Range During Sampling.
2. Collection of the influent sample shall precede collection of the effluent sample by one detention period. The operating record shall note the time that the influent and effluent samples are taken.
3. Supplemental discharge monitoring data shall be entered on Appendix A of this permit and submitted in accordance with the Reporting Requirements in Section 5 of this permit.

**Table D**

(THE REQUIREMENTS OF THIS TABLE ARE IN EFFECT SIX MONTHS AFTER START-UP DATE OF THE SYSTEM DESCRIBED IN PARAGRAPH 8(E) UNTIL PERMIT EXPIRATION)

Discharge Serial Number: **001-1**

Monitoring Location: **1**

Wastewater Description: *Stock cleaning wastewaters including rejects from: Posiflow Cleaners, Uniflow Cleaners, Screening Wastewaters, Stock Prep Cleaners; Clarifier Building Wastewater, DAF Rejects, Building Fordrinier Wastewater, Press Wastewater, Whitewater, Compactor Filtrate, Wash-up Water, Press Shower Overspray/Machine Shower Water, AES Filter Backwash Water, Potentially-contaminated Stormwater, Boilout Wastewaters, Screw Press Filtrate, Boiler Regeneration Backwash Water, Cooling Tower Blowdown, Non-contact Cooling Water, Seal Water, Condensate from Steam System, Boiler Water Treatment System Wastewaters, Starch Make-down System Flush Water, Tank and Chest Cleaning Wastewaters*

Monitoring Location Description: **"Town Monitoring Point"**

Discharge is to: **Town of Montville Water Pollution Control Facility**

PARAMETER	UNITS	FLOW/TIME-BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level <sup>3</sup>
		Average Monthly Limit	Maximum Daily Limit	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be Reported	
Ammonia, Nitrogen	mg/l	---	---	Monthly	Daily Composite	NA	NR	NA	
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	lb/day	3,000 <sup>6</sup>	4,500 <sup>6</sup>	Twice/Week	Daily Composite	NA	NR	NA	
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	mg/l	---	---	Twice/Week	Daily Composite	NA	NR	NA	
Cyanide, Total	mg/l	---	---	Semi-annual	Daily Composite	NA	NR	NA	
Flow Rate (Average Daily) <sup>1</sup>	gpd	1,080,000	NA	Continuous	Daily Flow	NA	NR	NA	
Flow, Maximum during 24 hr period <sup>1</sup>	gpd	NA	1,100,000	Continuous	Daily Flow	NA	NR	NA	
Flow (Day of Sampling)	gpd	NA	1,100,000	Twice/Week	Daily Flow	NA	NR	NA	
Flow, Instantaneous	gpm	---	---	Continuous	Daily Flow	NA	NR	NA	
Oil & Grease, Total	mg/l	75	100	Weekly	Grab Sample Average	NA	NR	NA	
Pentachlorophenol	µg/L	ND	ND	Semi-annual	Daily Composite	NA	NR	NA	5
pH, Day of Sampling	SU	NA	NA	NR	NA	6.0 to 10.0	Twice/Week	RDS	
pH, Maximum	SU	NA	NA	NR	NA	10.0	Continuous	Continuous	
pH, Minimum	SU	NA	NA	NR	NA	6.0	Continuous	Continuous	
Phenols, Total	mg/l	---	---	Semi-annual	Daily Composite	NA	NR	NA	
Soluble BOD <sub>5</sub>	lb/day	---	---	Twice/Week	Daily Composite	NA	NR	NA	
Soluble BOD <sub>5</sub>	mg/L	---	---	Twice/Week	Daily Composite	NA	NR	NA	
Sulfate, Total	mg/l	---	---	Monthly	Daily Composite	NA	NR	NA	
Temperature, Daily Average (June 1-September 30)	° F	NA	NA	NR	NA	95	Continuous	Calculated <sup>4</sup>	
Temperature, Maximum (June 1-September 30)	° F	NA	NA	NR	NA	104	Continuous	Continuous <sup>5</sup>	
Temperature, Daily Average (October 1-May 31)	° F	NA	NA	NR	NA	95	Continuous	Calculated <sup>4</sup>	
Temperature, Maximum (October 1-May 31)	° F	NA	NA	NR	NA	104	Continuous	Continuous <sup>5</sup>	
Total Dissolved Solids (TDS)	mg/l	---	---	Quarterly	Daily Composite	NA	NR	NA	
Total Suspended Solids (TSS)	lb/day	2,100 <sup>6</sup>	3,150 <sup>6</sup>	Twice/Week	Daily Composite	NA	NR	NA	
Total Suspended Solids (TSS)	mg/l	---	---	Twice/Week	Daily Composite	NA	NR	NA	
2,4,5-Trichlorophenol	µg/L	ND	ND	Semi-annual	Daily Composite	NA	NR	NA	2.5
2,4,6-Trichlorophenol	µg/L	ND	ND	Semi-annual	Daily Composite	NA	NR	NA	2.5

#### **TABLE D FOOTNOTES AND REMARKS**

##### **Footnotes:**

- <sup>1</sup> For this parameter the Permittee shall maintain at the facility a record of the Total Daily Flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each month.
- <sup>2</sup> The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' 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'.
- <sup>3</sup> Minimum levels specified in this table represent the concentrations at which quantification must be achieved and verified during the chemical analyses for those noted parameters. 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.
- <sup>4</sup> This value must be calculated by summing every temperature reading obtained during the "day" and dividing that value by the number of temperature readings taken in that "day". Report the highest average daily value on the DMR.
- <sup>5</sup> Report the maximum instantaneous value on the DMR.
- <sup>6</sup> These limits are interim limits only. Final limits will be determined upon evaluation of the efficiency of the anaerobic pretreatment system.

##### **Remarks:**

1. Abbreviations used for units are as follows: gpd means gallons per day; gpm means gallons per minute; mg/L means milligrams/liter; µg/l means micrograms/liter; lbs/day means pounds per day; SU means Standard Units; ° F means degrees Fahrenheit. Other abbreviations are as follows: NA means Not Applicable; ND means Non-Detectable; NR means Not Reportable; RDS means Range During Sampling.
2. The same analytical method shall be used to test for BOD<sub>5</sub> and soluble BOD<sub>5</sub>.
3. Supplemental discharge monitoring data shall be entered on Appendix A of this permit and submitted in accordance with the Reporting Requirements in Section 5 of this permit.

**SECTION 5: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES AND REPORTING REQUIREMENTS**

- (A) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved by the Environmental Protection Agency pursuant to 40 CFR 136 unless an alternative method has been approved in writing in accordance with 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. The following test methods shall be used to analyze the parameters identified below:

<u>PARAMETER</u>	<u>METHOD OF ANALYSIS</u>
Soluble BOD <sub>5</sub>	Filter sample through a 0.45 micron filter and analyze the filtrate for BOD <sub>5</sub> using an approved method in 40 CFR 136
2,4,5-Trichlorophenol	EPA Method 1625

- (B) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.
- (C) The results of chemical analysis 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 at the following address. Except for continuous monitoring, any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136 or other methods approved by the Commissioner shall also be included on the DMR, or as an attachment, if necessary. Appendix A of this permit shall be used for that purpose. 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 taken.

Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division (Attn: DMR Processing)  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

- (D) 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 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.

- (E) NetDMR Reporting Requirements

1. Prior to one-hundred and eighty (180) days after the issuance of this permit, the Permittee may either submit monitoring data and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit discharge monitoring reports (DMRs) and other required reports through a secure internet connection. Unless otherwise approved in writing by the Commissioner, no later than one-hundred and eighty (180) days after the issuance of this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

- a. Submittal of NetDMR Subscriber Agreement

On or before fifteen (15) days after the issuance of this permit, the Permittee and/or the person authorized to sign the Permittee's discharge monitoring reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at [deep.netdmr@ct.gov](mailto:deep.netdmr@ct.gov)

and initiate the NetDMR subscription process for electronic submission of Discharge Monitoring Report (DMR) information. Information on NetDMR is available on the Department's website at [www.ct.gov/deep/netdmr](http://www.ct.gov/deep/netdmr). On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed and notarized copy of the Connecticut DEEP NetDMR Subscriber Agreement to the Department.

b. Submittal of Reports Using NetDMR

Unless otherwise approved by the Commissioner, on or before one-hundred and eighty (180) days after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement of Section 5(C) of this permit.

DMRs shall be submitted electronically to the Department no later than the 30th day of the month following the completed reporting period. All reports required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to the Department. The Permittee shall also electronically file any written report of non-compliance described in Section 6 of this permit as an attachment in NetDMR. NetDMR is accessed from: <http://www.epa.gov/netdmr>.

c. Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs and reports, the Commissioner may approve the submission of DMRs and other required reports in hard copy form ("opt-out request"). Opt-out requests must be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date a Permittee would be required under this permit to begin filing DMRs and other reports using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department's approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed opt-out request and such request is approved by the Department.

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at [deep.netdmr@ct.gov](mailto:deep.netdmr@ct.gov):

Attn: NetDMR Coordinator  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

- (F) Copies of all DMRs shall be submitted concurrently to the local Water Pollution Control Authority ("WPCA") involved in the treatment and collection of the permitted discharge.

**SECTION 6: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS**

- (A) If any sample analysis indicates that an effluent limitation specified in Section 4 of this permit has been exceeded, a second sample of the effluent shall be collected and analyzed for the parameter(s) in question and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) within 30 days of the exceedance.
- (B) The Permittee shall immediately notify the Bureau of Materials Management and Compliance Assurance and the local WPCA of all discharges that could cause problems to the Publicly Owned Treatment Works ("POTW"), including but not limited to slug loadings of pollutants which may cause a violation of the

POTW's NPDES permit, or which may inhibit or disrupt the POTW, its treatment processes or operations, or its sludge processes, use or disposal.

- (C) In addition to the notification requirements specified in Section 1B of this permit, if any sampling and analysis of the discharge performed by the Permittee indicates a violation of limits specified in Section 4 of this permit, the Permittee shall notify the Bureau of Materials Management and Compliance Assurance within 24 hours of becoming aware of the violation.

## SECTION 7: COMPLIANCE CONDITIONS

The Commissioner may provide public notification, in a newspaper of general circulation in the area of the respective POTW, of permittees that at any time in the previous twelve months were in significant noncompliance with the provisions of this permit. For the purposes of this provision, a Permittee is in significant noncompliance if its violation(s) meet(s) one or more of the following criteria:

- Chronic violations: Those in which sixty-six (66%) percent or more of all measurements taken for the same pollutant parameter during a six-month period exceed (by any magnitude) the Average Monthly, Maximum Daily, or Maximum Instantaneous Limit(s).
- Technical Review Criteria violations: Those in which thirty-three (33%) or more of all of the measurements taken for the same pollutant parameter during a six-month period equal or exceed the Average Monthly, Maximum Daily, or Maximum Instantaneous Limit(s) multiplied by 1.4 for BOD, TSS, fats, oil, and grease, or 1.2 for all other pollutants except pH.
- Monitoring Reports: Failure to provide, within 45 days after the due date, required reports such as DMRs.
- Compliance Schedule: Failure to meet within 90 days after the schedule date, a compliance schedule milestone contained in or linked to a respective permit for starting construction, completing construction, or attaining final compliance.
- Noncompliance Reporting: Failure to accurately report noncompliance in accordance with provisions identified in Section 6 of this permit.
- Discretionary: Any other violation of an effluent limit that the Department determines has caused, alone or in combination with other discharges, a violation of the POTW's NPDES permit, inhibition or disruption of the POTW, its treatment processes or operations, or its sludge processes, use or disposal.
- Imminent Endangerment: Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment, or has resulted in the Department's exercise of its emergency authority under 40 CFR §403.8(f)(1)(vi)(B) to halt or prevent such a discharge.
- BMPs: Any other violation or group of violations, which may include a violation of Best Management Practices, which the Department determines will adversely affect the operation or implementation of the pretreatment program.

## SECTION 8: SPECIAL CONDITIONS

- (A) Section 40 CFR 430.107 requires that Permittees not using chlorophenolic-containing biocides must certify to the permit-issuing authority that they are not using these biocides. This certification shall be submitted annually and is due on December 31<sup>st</sup> of each year that this permit is in effect. [See Appendix B.]
- (B) If the Permittee submits a notification to the Department under RCSA Section 22a-430-3i requesting approval for the permanent or temporary use of any chemical at its facility, the Permittee shall include as part of its submittal, an evaluation demonstrating that the subject chemical will not cause or contribute to interference or pass-through at the Montville Water Pollution Control Facility ("WPCF").

## APPENDIX A

### Supplemental Discharge Monitoring Data: DSN 001A

Month: \_\_\_\_\_

DAY	FLOW	FLOW (max)	BOD <sub>5</sub>	Soluble BOD <sub>5</sub>	TSS	pH (min)	pH (max)	TEMP (MAXIMUM PER DAY)	TEMP (AVERAGE PER DAY)
	gpd	gpm	mg/L	mg/L	mg/L	SU	SU	°F	°F
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
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22									
23									
24									
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27									
28									
29									
30									
31									

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Official (Print Name): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



# APPENDIX A

Supplemental Discharge Monitoring Data: DSN 001

Month: \_\_\_\_\_

DAY	FLOW	FLOW (max)	BOD <sub>5</sub>	BOD <sub>5</sub>	Soluble BOD <sub>5</sub>	Soluble BOD <sub>5</sub>	TSS	TSS	pH (min)	pH (max)	OIL & GREASE	TEMP (MAXIMUM PER DAY)	TEMP (MAX, 2-HOUR ROLLING)	TEMP (AVERAGE PER DAY)
	gpd	gpm	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	SU	SU	mg/L	°F	°F	°F
1														
2														
3														
4														
5														
6														
7														
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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Official (Print Name): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## APPENDIX B

### Chlorophenolic Biocide Certification

In accordance with the requirements of 40 CFR 430.107, I hereby certify that [NAME OF COMPANY] does not utilize chlorophenolic-containing biocides in any of the processes at its facility located at [ADDRESS].

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Authorized Official (Print Name): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

- (C) The Permittee shall "pig"<sup>1</sup> the pipeline that conveys the effluent from the Permittee's facility to the Montville WPCA at a mutually agreed frequency as requested by the Montville WPCF. Currently, this operation occurs approximately twice per week in the summer months and once per week in the non-summer months.
- (D) The Permittee shall maintain compliance with the most current, Department-approved version of the "Surge Basin SOP".
- (E) In May 2012, the Permittee notified the Department that it intends to install an anaerobic pretreatment system to treat its wastewater. On June 1, 2012, the Department approved the conceptual design for this project based on the submittal entitled *Anaerobic Pretreatment System Evaluation*, May 2012, by Woodard and Curran. Submission of complete and detailed plans and specifications are pending. Within six months of the start-up date of the anaerobic pretreatment system, the Permittee's discharge, DSN 001, shall meet the requirements set forth in Tables C & D of this permit.
- (F) The Permittee shall conduct an evaluation in order to establish final temperature limits for its pretreatment system. Within sixty days of issuance of this permit, the Permittee shall submit a scope of study for the Commissioner's review and written approval that outlines the manner in which the evaluation will be performed. Within thirty-six months of issuance of this permit, the Permittee shall submit the results of its evaluation for the Commissioner's review and written approval. At a minimum, this evaluation shall be made in consideration of: influent/effluent temperature data, design capacity and performance of the heat exchangers, seasonal source water usage, production schedules, and potential treatment system modifications. Based upon this evaluation, the Permittee shall propose final temperature effluent limits. The Permittee must demonstrate that its proposed final limits will be protective of the Montville WPCF at all times. If necessary, the interim temperature limits in Table B of the permit shall be modified in accordance with RCSA Section 22a-430-4(p)(5)(B) to incorporate final temperature limits.
- (G) Consistent with the September 5, 2012 letter from the Town of Montville's consultant, Fay, Spofford & Thorndike, the maximum daily BOD<sub>5</sub> limit of 18,700 lbs/day is a five-year temporary limit. On November 13, 2017, a maximum daily BOD<sub>5</sub> limit of 16,000 lbs/day shall take effect.
- (H) 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:

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

This permit is hereby issued on

11/15/12

  
MACKY MCCLEARY  
Deputy Commissioner

MM:CMG  
copy: Town of Montville WPCF

<sup>1</sup> "Pig" means the practice of using a "pig" (i.e., a tool/device that is sent down the pipeline which allows for the inside of the pipeline to be cleaned/scoured) to clean out the pipeline.

# **FACT SHEET** **SPDES PERMIT RENEWAL**

<b>APPLICANT</b>	RAND-WHITNEY CONTAINERBOARD, L.P.
<b>SPDES PERMIT NO.</b>	SP0002032
<b>APPLICATION NO.</b>	199902202
<b>DATE APPLICATION RECEIVED</b>	June 30, 1999
<b>FACILITY ID.</b>	086-049
<b>LOCATION ADDRESS</b>	370 Route 163 Montville, Connecticut 06353
<b>FACILITY CONTACT</b>	Paul Schaffman, P.E., Director of Regulatory Affairs Phone: 860-425-3712 FAX: 860-848-8900 E-mail: <a href="mailto:PAULS@rwcb.com">PAULS@rwcb.com</a>
<b>MAILING ADDRESS</b>	P.O. Box 336 Montville, Connecticut 06353
<b>DMR CONTACT</b>	Paul Schaffman
<b>BILLING CONTACT</b>	Paul Schaffman
<b>PERMIT TERM</b>	5 years
<b>PERMIT CATEGORY</b>	Significant Industrial User Categorical Industrial User (40 CFR 430, Subpart J)
<b>PRIMARY SIC CODE</b>	2631 (Paperboard Mills)
<b>PERMIT TYPE</b>	Renewal
<b>OWNERSHIP</b>	Private
<b>POTW THAT RECEIVES DISCHARGE</b>	Town of Montville Water Pollution Control Facility [Thames River]
<b>DEP STAFF ENGINEER</b>	Christine Gleason (860/424-3278) <a href="mailto:christine.gleason@ct.gov">christine.gleason@ct.gov</a>

## **PERMIT FEES**

*Application Filing Fee: \$700. Paid on June 30, 1999*

*Application Processing Fee: \$12,925.00 (Invoice 76261). Paid on January 22, 2009*

### **Annual Fee:**

DISCHARGE CODE	WASTEWATER CATEGORY (per 22a-430-7)	MAXIMUM GPD or CATEGORY	DSN	ANNUAL FEE (per 22a-430-7)
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501054Z	<b><i>Pulp &amp; Paper Mills</i></b> (Posiflow Cleaner Wastewater, Uniflow Cleaners Wastewater, Screen Reject Wastewater, Stock Prep Cleaner Reject Wastewater, Fordrinier Wastewater, Press Wastewater, Whitewater, Compactor filtrate, Wash-up water, Press Shower Overspray/Machine Shower Water, AES Filter Backwash Water, Potentially-contaminated Stormwater, Boilout Wastewaters, Screw Press Filtrate)	>50,000	001	8,425.00
5060000	<b><i>Water Production Wastewater</i></b> (Boiler Regeneration Backwash Water)	---	001	660
5170000	<b><i>Blowdown from Heating &amp; Cooling Equipment</i></b> (Cooling Tower Blowdown)	---	001	4337.50
502000a	<b><i>Cooling Water (Non-Contact)</i></b> (Non-contact Cooling Water, Seal Water, Steam Condensate, Boiler Water Treatment System Condensate, Starch Make-down System Flush Water)	0-100,000	001	660
<b>TOTAL</b>				<b>\$13,562.50</b>

## I. APPLICANT

Rand-Whitney Containerboard, L.P. is seeking a renewal of its SPDES permit (SP0002032) for authorization of the discharge of treated wastewaters generated from its linerboard processing operations. On June 30, 1999, the Department received Application 199902202 for the subject SPDES permit. This application was noticed in the *Norwich Bulletin* on July 2, 1999. On October 7, 1999, the application was determined to be timely and administratively sufficient.

The applicant seeks authorization for the following:

DSN	PROPOSED AVERAGE MONTHLY FLOW (gpd)	PROPOSED MAXIMUM DAILY FLOW (gpd)	PROPOSED WASTESTREAMS	TREATMENT TYPE(S)	DISCHARGE TO
001-A	1,080,000	1,100,000	Stock cleaning wastewaters including rejects from: Posiflow Cleaners, Uniflow Cleaners, Screening Wastewaters, Stock Prep Cleaners, Clarifier Building Wastewater, DAF Rejects, Building Fordrinier Wastewater, Press Wastewater, Whitewater, Compactor Filtrate, Wash-up Water, Press Shower	Equalization; Neutralization	001-1
001-1			Overspray/Machine Shower Water, AES Filter Backwash Water, Potentially-contaminated Stormwater, Boilout Wastewaters, Screw Press Filtrate, Boiler Regeneration Backwash Water, Cooling Tower Blowdown, Non-contact Cooling Water, Seal Water, Condensate from the Steam System, Boiler Water Treatment System Wastewaters, Starch Make-down System Flush Water, Tank and Chest Cleaning Wastewaters	Equalization; Neutralization; Solids removal; Heat removal	Town of Montville's collection system

## II. BACKGROUND/PERMIT HISTORY

Rand-Whitney Containerboard, L.P. (RWC), a part of the Kraft Group, operates a linerboard mill in Montville. The wastewater that is generated from the mill is treated on-site and discharged into the Town of Montville's Water Pollution Control Facility (WPCF) by way of a dedicated sewer line. This discharge is subject to the terms and conditions of SP0002032 which was issued on December 29, 1994. General permits exist for other wastewater discharges, including stormwater (GSI000723), water treatment wastewater (GWT000231), and miscellaneous wastewaters (GMI000086).

In the early 1990s, RWC proposed construction of a mill in Montville for processing linerboard from old corrugated containers (OCC). In July 1992, it submitted an application to obtain a permit to discharge the wastewater from its mill to the Montville WPCF. The application sought authorization for the discharge of an average of 1,080,000 gallons per day of wastewater generated from the pulping, cleaning, stock preparation, and paper forming operations, as well as discharges from ancillary operations, including cooling water, cooling tower blowdown, boiler blowdown, and water production wastewaters. The raw wastewater, as represented in the permit application, was expected to have an average 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>) of 10,400 lbs/day, an average Total Suspended Solids (TSS) of 8,000 lbs/day, temperature ranging from 60-90 °F, and an average sulfate concentration of 500 mg/L. The application also included a conceptual design for a system which would treat this raw wastewater prior to being conveyed to the Montville WPCF.

In June 1993, as construction of the mill proceeded, a revised permit application was submitted. This application revised the proposed linerboard production from 400 tons/day to 450 tons/day and also revised the BOD<sub>5</sub> and TSS projections for the raw wastewater (i.e., the raw wastewater would contain an average BOD<sub>5</sub> of 16,300 lbs/day and an average TSS of 4,350 lbs/day). This application also provided additional information as to the type of treatment the raw wastewater would receive. Specifically, it indicated that two Krofta dissolved air flotation (DAF) units would be installed to treat the wastewater prior to discharge to the Montville WPCF. Treated effluent from the DAFs would then be directed via a dedicated pipeline to the Montville WPCF where it would be treated in the WPCF's Extended Aeration (EA) System and ultimately in the Sequencing Batch Reactor (SBR) system yet to be constructed. The projected plans also provided for the Montville WPCF to partially treat and return a portion of RWC's discharge ("return water") which would be used by RWC as process water in its operations. In June 1993, the Department drafted and noticed RWC's discharge permit based on these projections. Soon thereafter, the Town of

Montville allowed RWC a higher BOD<sub>5</sub> raw wastewater limit (i.e., 16,300 lbs/day average monthly and 18,700 lbs/day maximum daily).

As the construction activities progressed, certain agreements were finalized between RWC and the Town of Montville. In June 1993, two agreements were entered into: the *Amended and Restated Wastewater Treatment Agreement* ("Wastewater Treatment Agreement"), which set forth the terms and conditions concerning the pre-treatment of RWC's discharge, and the *Second Amended and Restated Water Supply Agreement* ("Water Supply Agreement") which set forth the terms and conditions concerning the quality and quantity of the return water supplied to RWC. Among other things, the Wastewater Treatment Agreement provided for the Town to construct two DAFs in a building on RWC's property ("Pre-Treatment Facility") and to construct two dedicated pipelines ("Pipelines"), one for the conveyance of RWC's wastewater from the Pre-Treatment facility to the Montville WPCF and the other for the return water from the Montville WPCF to RWC. The Wastewater Treatment Agreement also contained certain limits that RWC's wastewater would need to meet prior to discharge to the Montville WPCF (i.e., after treatment in the DAFs). In September 1994, construction was completed on the two Town-owned, RWC-operated DAFs; the terms and conditions of the operation and maintenance of the units were set forth in the *Operation and Maintenance Agreement*. Toward the end of 1994, the construction of the Pipelines and the three SBRs at the Montville WPCF were nearly completed. In December 1994, RWC's sewer discharge permit, SP0002032, was issued; it included the higher raw wastewater BOD<sub>5</sub> limits that the Town approved in June 1993 and required monitoring at a point prior to treatment of the wastewater in the DAFs<sup>1</sup>.

In January 1995, operations began at the mill. As planned, return water was supplied to RWC from the Montville WPCF for use in various operations at the mill. Within the first year of operation, however, RWC experienced some operational issues at its facility that it claimed were related to the quality of the return water (e.g., equipment/piping corrosion, impaired boiler operations, the need for increased chemical consumption). Consequently, an alternative source of supply water was sought. In 1997, RWC obtained a diversion permit which allowed for the withdrawal of up to 803,000 gpd of water from the Oxoboxo Brook during non low-flow conditions. With the diversion permit in place, Oxoboxo Brook water would be the main water source from November to June and return water would be the main water source in the summer months.

As mill operations got underway, other issues arose:

**BOD<sub>5</sub> and TSS Loading in RWC's Effluent:** As noted above, two DAFs were installed at the RWC site to remove BOD<sub>5</sub> and TSS in the raw wastewater. The design criteria for this system was 90% solids removal and 35% BOD<sub>5</sub> removal as set forth in the Water Supply Agreement. However, upon start-up of the system, the anticipated levels of removal were not met. As early as mid-1995, various operational, chemical, and mechanical measures, were undertaken in an attempt to meet the level of BOD<sub>5</sub> and TSS effluent quality that had been anticipated. This resulted in some success with additional TSS removal. However, the projected BOD<sub>5</sub> removal levels were never fully met, due in part, because the BOD<sub>5</sub> in RWC's effluent was soluble BOD<sub>5</sub> and the system was not designed to remove soluble BOD<sub>5</sub>. In 1996, the Town assigned all rights under the Krofta contract to RWC and the Wastewater Treatment Agreement was modified to increase the average monthly BOD<sub>5</sub> limit to 14,000 lbs/day and the maximum daily limit to 16,000 lbs/day.

At or around this time, the Montville WPCF began experiencing problems meeting the BOD<sub>5</sub> and TSS limits in its NPDES permit. In order to determine the source of the problems, RWC was issued a NOV requiring that it evaluate the characteristics of its discharge in order to determine if or how its discharge was impacting the treatment facility. In response to the NOV, RWC retained Malcolm-Pirnie (MP) to conduct an evaluation of the treatability of RWC's effluent. MP evaluated RWC's operations, the TSS and BOD<sub>5</sub> loading and variability of the effluent, and the operations at the Montville WPCF. MP concluded that the RWC wastewater could be effectively treated for BOD<sub>5</sub> and TSS and that there was nothing in RWC's wastewater that was determined to be inhibitory or could cause pass-through at the Montville WPCF. MP proposed no changes to the management of RWC's wastewater, but did suggest that the performance difficulties at the Montville WPCF lay with the operation of the facility itself and suggested that certain operational changes be undertaken at the Montville WPCF to eliminate/reduce these problems. The Montville WPCF's consultant, Fay Spofford, and Thorndike (FST) responded to the suggestions in this

<sup>1</sup> RWC is currently monitoring its wastewater at two different locations: The Town of Montville has established its compliance monitoring point after the DAFs ("Town Monitoring Point"); the compliance monitoring point in SP0002032 is located before the DAFs ("DEP Monitoring Point").

report by noting that the performance difficulties at the Montville WPCF were due to the excessive BOD<sub>5</sub> loadings and variations in the RWC wastewater. FST made recommendations to RWC to improve facility performance so that the Montville WPCF would be able to meet its NPDES limits. While both reports arrived at differing conclusions as to the source of the problems at the treatment facility, each did, however, conclude that additional treatment capacity at the Montville WPCF would at least partially address the BOD<sub>5</sub> and TSS exceedances. In 1999, a fourth SBR was constructed at the Montville WPCF. This resulted in an improvement in Montville's effluent quality with respect to BOD<sub>5</sub> and TSS. However, the issue of the variability of BOD<sub>5</sub> in RWC's effluent remained outstanding.

In November 1999, RWC was requested to provide additional information to supplement the existing reports on BOD<sub>5</sub> variability in its wastewater. Specifically, RWC was directed to investigate the source of the BOD<sub>5</sub> in its wastewater (i.e., from OCC or chemical additions), determine the impact that the internal wastestreams have on the variability of the loading, determine the hour-to-hour/day-to-day variability of the discharge, and determine what impact the BOD<sub>5</sub> variability and strength have on the operations of the Montville WPCF. In February 2000, RWC submitted a preliminary response to the November request. This evaluation attempted to identify the source of the BOD<sub>5</sub> in the discharge, as well as to determine the hourly variance of BOD<sub>5</sub> during normal and shutdown periods. The results of this study indicated that the source of the BOD<sub>5</sub> is from the OCC and not the chemicals used in the process. Specifically, the study determined that the source of BOD<sub>5</sub> was primarily from the starch-based glue used on the boxes, and to a lesser extent, the organic material in the OCC fibers. In addition, RWC evaluated the variability of the BOD<sub>5</sub> in the effluent during production, as well as during shutdowns. This report was followed up by another, more comprehensive report submitted in January 2001 by MP. This report evaluated the variability of the BOD<sub>5</sub> by investigating the individual sources of BOD<sub>5</sub> in the wastestreams generated at the site during routine operations and those generated during shutdown/clean-out operations. The report also evaluated the statistical relationships between the operational variables. The report concluded that the main factor in BOD<sub>5</sub> variability is the mill's production rate. The report did not propose any specific changes to be made to address this issue, but did request a higher maximum BOD<sub>5</sub> limit. The Montville WPCF, through its consultant, continued to note that proper operation of the treatment facility was not achievable due to the variable flows and loading from RWC. By 2002, however, two additional SBRs (SBRs 5 & 6) were installed at the Montville WPCF in anticipation of increased flows from Mohegan Sun Casino. While the Montville WPCF continued to employ strategies to deal with the impacts of the RWC discharge, this additional capacity allowed the treatment facility to better manage the discharge. Gradually, as treatment efficiencies improved, Montville was able to meet its permit limits. However, the issue of whether pre-treatment was necessary to address the variability in RWC's wastewater remained outstanding.

In late 2002, RWC was informed that it needed to investigate pre-treatment measures to address the BOD<sub>5</sub> variability in its discharge. In January 2003, RWC proposed installation of an equalization tank at its site and the use of Aerated Equalization to treat the soluble BOD<sub>5</sub> in its discharge. However, from late 2003 to early 2004, RWC pilot tested a Moving Bed Biofilm Reactor (MBBR) to determine if it would be a more effective alternative instead. The results of the pilot study indicated that a soluble BOD<sub>5</sub> reduction of about 20% may be achieved. By October 2004, RWC proposed the use of an MBBR system to address the BOD<sub>5</sub> variability but this proposal planned for the MBBR system to be installed at the Montville WPCF and operated by RWC. This operating arrangement proved to be infeasible and by 2005, the MBBR was ruled out as a treatment alternative. In May 2010, through Consent Order WC 5516, RWC was required to further evaluate the need for equalization in order to address the variability of its wastewater. RWC's consultant, Woodard and Curran (W&C) re-evaluated the past studies and evaluated existing conditions at the Montville WPCF and determined that equalization alone would not provide any real benefit to the treatment facility. RWC continues, however, to investigate treatment alternatives as set forth in the June 2011 Memorandum of Understanding with the Town of Montville entitled "Exploration of Treatment Options". Currently RWC is investigating the possibility of an anaerobic digester to treat its wastewater. This project is on-going.

**Issues with the Dedicated Pipeline, Odor, & Filamentous Bacteria Issues at the Montville WPCF:** Within several months of start-up of the mill, the Montville WPCF began experiencing odor problems. The source of the odors was determined to be the RWC discharge. Upon further investigation, it was determined that higher than expected sulfate levels in the RWC discharge,



coupled with the anaerobic conditions present in the dedicated pipeline, were causing the formation of sulfide-bearing compounds in the pipeline. The initial instances of odor were addressed by the addition of potassium permanganate at RWC to reduce sulfate levels. This was followed-up by "pigging" the dedicated pipeline. These remedies provided only limited mitigation of the odor problems. In addition to the problems with odor, the WPCF, over time, began to experience problems with filamentous bacteria in its SBRs. FST attributed the WPCF's problems with excess filamentous bacteria on the elevated temperature, nutrient deficiency, and sulfide content in RWC's discharge. In order to address the sulfide issue, the WPCF proposed a sulfide control program consisting of the addition of calcium nitrate to RWC's wastewater in order to reduce the filamentous population in the SBR basin and to mitigate odor problems at the WPCF. In addition, by late 1999, a daily pipeline pigging trial was undertaken in an attempt to reduce the levels of sulfide at the pipeline exit. However, odor and other problems persisted and by late 1999 through early 2000, the Montville WPCF was evaluating operational modifications to address these issues. By 2002, the issue of the odor was substantially addressed by the installation of two wet scrubbers at the WPCF. However, the issue of filamentous bacteria remained outstanding. This and other problems at the treatment facility led the Town of Montville to issue a NOV to RWC in December 2002, requiring that it address those conditions associated with its discharge (e.g., sulfur-bearing compounds, etc.) which were causing the excessive filamentous growth at the WPCF. In December 2002, RWC proposed to address the issue of sulfur compounds in its discharge by adding hydrogen peroxide to its pre-treated wastewater in order to increase dissolved oxygen levels and thereby reduce the generation of sulfide. This was followed-up by a proposal in 2004 to trial a caustic flushing program designed to reduce the amount of fermentation occurring in the pipeline. Yet another report was submitted in 2004 proposed treatment for RWC's wastewater in an MBBR system in order to address the sulfur-bearing compounds. None of these alternatives materialized. However, the additional capacity provided by SBRs 5 & 6 and the routine use of polymer at the WPCF allowed for better control of the filamentous bacteria so that the bulking issues were no longer a problem.

In January 2006, there was a break in the pipeline that conveys RWC's effluent to the WPCF. The break occurred in a section of the pipe located at the RWC facility. Corrosion Probe, Inc. (CPI) investigated this pipeline, as well as the parallel return water pipeline. It also tested the soils at various locations along the pipeline route. CPI concluded that the cause of the break was external (i.e., caused by the surrounding soils). This was confirmed by soil testing conducted in several areas along the pipelines. Visual inspection of the pipelines also indicated that the effluent pipeline contained scale in the break area, while the supply pipeline did not. CPI concluded that the higher temperature of the water in the effluent line versus the supply line could have contributed to this situation. To date, the dedicated wastewater line continues to be pigged by RWC staff once a week in the non-summer months and twice a week in the summer months.

**Thermal Issues Associated with RWC's Effluent:** As noted above, the permit applications submitted in 1992/1993 projected that the temperature of RWC's wastewater would be between 60-90 °F. However, the actual temperature was considerably higher. In 1996, the WPCF conducted temperature monitoring of RWC's wastewater at the outlet of the dedicated pipeline. This monitoring indicated that the temperature (from May to July) varied from 99.7 °F to 115.7 °F. By 1997, plans were initiated by the Montville Water Pollution Control Authority (WPCA) to control the temperature in RWC's discharge. Several options were identified by Camp Dresser & McGee (CDM), the Town's consultant. Ultimately, a heat exchanger located at the RWC property was the agreed-upon option. The terms and conditions of the installation, maintenance, and design capacity of the heat exchanger were finalized through a Standstill Agreement executed in March 1998 by RWC and the Town of Montville. The Standstill Agreement provided for the WPCA to install a heat exchanger at the RWC site designed to reduce the temperature of RWC's effluent to no more than 97 °F; RWC was obligated to maintain the heat exchanger as set forth in the Standstill Agreement. In July 1998, the heat exchanger (an Alpha Laval spiral heat exchanger) was installed at the RWC facility. An initial evaluation was conducted soon after the heat exchanger was installed which indicated that it appeared to be performing as intended. However, problems with the heat exchanger's performance began to occur soon thereafter. In October 1998, CDM conducted a site inspection at RWC to evaluate the performance of the heat exchanger system. That inspection revealed that the amount of solids in the influent to the heat exchanger exceeded the design constraints specified in the Standstill Agreement. This, and other related operational problems, were causing a decrease in thermal performance. By mid-2000, the heat exchanger had deteriorated to the point where major maintenance was necessary. By December

2000, RWC contracted with an engineering firm, Neill & Gunter, (N&G) to fix and/or re-design the heat exchanger. Based on recommendations from N&G, RWC proposed to install a new plate-and-frame heat exchanger with the existing, repaired Alpha Laval serving as a backup. RWC proposed that the design criteria for the new plate-and-frame heat exchanger would meet the 97 °F limit set forth in the Standstill Agreement. However, the Montville WPCF indicated that the 97 °F limit identified in the Standstill Agreement was based on "limited data and assumptions" and it wanted the proposed heat exchanger to be designed to treat the wastewater to 85 °F. Regardless, in June 2001, RWC installed (at risk) a Mueller plate-and-frame heat exchanger designed to achieve an average daily temperature of 97 °F; the Alfa Laval was designated as the back-up. Despite installing the new heat exchanger, the WPCF was still experiencing problems associated with elevated temperature. As a result, RWC was required to investigate a long-term option for controlling the temperature of its effluent. RWC directed its consultant, W&C, to evaluate the temperature of its effluent, as well as the effects of the temperature on the operations at the Montville WPCF, and propose certain long-term alternatives. As a result of this evaluation, W&C proposed the installation of a new closed loop evaporative cooling tower and another heat exchanger. By 2008, RWC replaced the Alpha Laval with a second Mueller plate-and-frame heat exchanger; no approval appears to exist for this heat exchanger. In May 2010, through Consent Order WC 5516, RWC was required to further evaluate the need for temperature reduction for its effluent. In response to this requirement, W&C conducted another evaluation to investigate the cooling options for RWC's effluent. Based on this evaluation, W&C recommended installation of a third Mueller plate-and-frame heat exchanger. This heat exchanger became operational in July 2011.

**Spills at RWC:** In addition to the above-noted issues, spills from the RWC facility began to occur soon after operations began in January 1995. In August 1995, the DEP issued RWC a Notice of Violation (NOV) for, among other things, three process water spills that entered Oxoboxo Brook. In response to this NOV, RWC's consultant submitted a report in December 1995 which proposed to install additional containment capacity at the facility in an effort to address any future spills. Specifically, it proposed to install spill curbing in the OCC and Paper Machine ("PM") Basements and to install a "Surge Basin". The construction of the spill curbing and the installation of the Surge Basin was completed in 1996, however, spills continued to occur. In July 1998, RWC was issued a Consent Order (WC 5253) as the result of nine spills that occurred from August 1996 to September 1997. The consent order required RWC to investigate the source of the spills and to take necessary remedial actions to prevent future occurrences of spills. In 1999, RWC submitted a report designed to prevent any future process water spills from occurring at the facility. The report proposed certain facility/operational changes, including: installation of a U-drain and sump in the OCC Warehouse, changes to the Surge Basin discharge piping, process control modifications, upgrading the sump pump system, installing curbing at the Pre-Treatment Building, and increasing the pumping capacity to the sewer main. However, seven additional spills occurred after submission of this report, so in 2002, RWC submitted a supplemental report to address the additional spills that had occurred since submission of the original report. In 2004, another spill occurred and this required a further evaluation, as required by the Consent Order, WC 5253. In response to this requirement, W&C submitted a report in November 2005 (*Conceptual Engineering Design Report*) which summarized its evaluation of the existing measures in place to address spills and made recommendations for future improvements. The report concluded that existing spill prevention measures on-site appeared appropriate and recommended only that the Surge Basin SOP be revised to modify the sequence in which the structures used to contain excess wastewater were to be used. The recommendation made to revise the Surge Basin SOP was incorporated into the March 2010 Consent Order, WC 5516. However, after issuance of this Consent Order, W&C proposed an alternative revision to the Surge Basin SOP (i.e., to install an overflow pipe that would by-pass the valve that directs excess water from the PM Basement to the Surge Basin). On March 3, 2011, the Department approved this alternative and installation has been completed. To date, one spill (related to the cooling tower) has been reported since issuance of the Consent Order.

**Current Status of Issues:** Resolution of the issues noted above has precluded re-issuance of SP0002032 until now. The problems caused by these issues have been reduced/eliminated either through actions taken by the Montville WPCF, in terms of upgrading its facility, or by actions taken by RWC to address the requirements of the recent Consent Order. The Montville WPCF currently operates 6 SBRs which allows it enough treatment capacity to manage the BOD<sub>5</sub> and temperature loads in the RWC discharge. The

Montville WPCF has been successfully treating RWC's wastewater for several years now and it has not had a BOD<sub>5</sub> permit violation in several years.

### **III. ISSUES RELATED TO THE APPLICATION**

#### **A. FEDERALLY-RECOGNIZED INDIAN LAND**

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

#### **B. COASTAL AREA/COASTAL BOUNDARY**

The site is located in a coastal area, but not located within a coastal boundary. Renewal of this permit will not adversely impact coastal resources.

#### **C. ENDANGERED SPECIES**

The site is not located within an area identified as a habitat for endangered, threatened or special concern species.

#### **D. AQUIFER PROTECTION AREAS**

The site is not located in a town required to establish aquifer protection areas.

#### **E. CONSERVATION OR PRESERVATION RESTRICTION**

According to the Permittee, the property is not subject to a conservation or preservation restriction.

#### **F. PUBLIC WATER SUPPLY WATERSHED**

The site is not located within a public water supply watershed.

### **IV. NATURE OF THE BUSINESS GENERATING THE DISCHARGE**

RWC is in the business of recycling cardboard. The primary SIC code, as provided by the applicant, is: 2631 (Paperboard Mills).

### **V. FACILITY DESCRIPTION**

RWC is located in a mixed residential/commercial/industrial area in Montville and has operated at the site since 1995. Rand-Whitney Containerboard Limited Partnership owns and operates the papermill; Rand-Whitney Realty, LLC owns the land and the other buildings on-site. [See Attachment I for site map]. RWC is in the business of processing old corrugated containers (OCC) into linerboard. RWC reportedly produces approximately 650 tons of linerboard per day of varying weights. In addition to OCC, small amounts of baled "double-lined Kraft" (i.e., the box clippings generated by corrugated box plants) and "carrier stock" (i.e., boxes used for packing soft drink cans) are also processed through the facility. The waste paper is received into the facility in baled form, temporarily stored in the OCC Warehouse, and then processed as follows:

#### **Papermill Operations:**

**OCC Operations:** OCC bales are conveyed into the Pulper where they are combined with chemicals and hot water in order to break down the fibers in the cardboard. Following pulping, this stream is cleaned in a series of centrifugal cleaners and rotating mechanical screens. The rejects streams generated from the cleaning/screening operations (Posiflow Cleaners, Uniflow Cleaners, Screen Rejects) are directed to the "Rejects Collection Tank" (RCT); the accepts stream is thickened to a consistency of approximately 7-8% solids in the OCC Thickener Tank and is then conveyed to the "High Density" (HD) Storage Chest for subsequent use in the paper machine operations. Solid waste is also generated from the OCC operations, primarily from the Pulper. The solid waste/trash that is

generated is de-watered, if necessary, and shipped off-site; any wastewater generated in this process is directed back to the Pulper for re-use by way of the OCC sump.

**Paper Machine (PM) Operations:** Stock from the HD Chest is conveyed to the Stock Prep Tank where various sizing and strengthening chemicals are added to the stock. The stock is then diluted and mechanically cleaned prior to conveyance into the Fordrinier. The reject stream generated from the Stock Prep Tank is directed into the RCT; the prepared stock is conveyed to the Fordrinier for further processing. The Fordrinier forms the stock into a two-ply sheet of paper which is applied to a continuous wire that is transported over drainage boxes to remove water so that the consistency of the paper is approximately 20% solids. The wastewater removed in the process is collected in the "Save-All" and "AES Filter" and is re-used internally. The paper sheet is further dewatered in the Press to a consistency of approximately 40-50% solids. The wastewater from this operation is also collected in the "Save-All" and "AES Filter" for further re-use. The paper is then dried, wound on spools, and shipped off-site.

**Water Use and Management:** The source water used at the mill consists of either return water provided by the Montville WPCF or water from Oxoboxo Brook. In the non-summer months (October to May), the mill water mix ranges from 1:1 to 4:1; in the summer months, the mill is predominantly on return water. RWC currently has a Diversion Permit which allows for the withdrawal of up to 804,000 gpd of Oxoboxo Brook water. Water from Oxoboxo Brook is withdrawn through a single intake structure equipped with a standard 3/8" screen. The water that is withdrawn is filtered through a bank of sand filters and directed into the "Raw Water Blend Tank" where it is then combined with the return water, and treated with a biocide. From there, this water is then directed to the appropriate areas on-site.

The mill is designed to re-use a majority of the process water that it generates. Water from the PM Operations is collected in the "Save-All" and the "AES Filter", where the water is filtered and then pumped into the "Excess Whitewater Tank" where it can be re-used in various operations in the mill. Additionally, process water that overflows the various tanks and chests in the mill collects in the OCC Basement or the PM Basement which each contain lateral drains ("U-drains") which are connected to a sump which collects this overflow water. Under "normal conditions", the water collected in these sumps is directed back for re-use, generally to the Pulper. However, the contents of the sumps can also be directed to the RCT, if necessary. Under "excess water conditions", the water from the OCC and PM Basements gravity flow to the Surge Basin, a 100,000 gallon above-ground tank located outside the OCC Area. In addition to the U-drains and sump in the OCC and PM basements, there is also a U-drain and sump in the OCC Warehouse which is designed to prevent water from exiting the facility if the OCC basement floods.

**Cooling Towers & Heat Exchangers:** There is a cooling tower on-site ("Paper Machine Cooling Tower") that is used to provide cooling for various mechanical and hydraulic systems throughout the mill. There is another cooling tower on-site that until 2011 had been used to provide cooling for the vacuum pumps on-site. It is now used to provide cooling for the heat exchangers associated with the effluent cooling, as necessary (i.e., in the summer months). This cooling tower has a blowdown associated with it which is directed to the OCC U-drains.

There are presently three Mueller plate-and-frame heat exchangers on-site used to cool the effluent prior to discharge to the Montville WPCF. The present operating configuration is as follows: June through September mode ("Summer Mode"): cooling tower on and one primary heat exchanger and one secondary heat exchanger both on-line with the third heat exchanger off-line, but in standby mode to be used as a back-up; October through May ("Maximum Heat Recovery Mode"): one primary heat exchanger and one secondary heat exchanger both on-line with the third heat exchanger off-line, but in standby mode to be used as a back-up; October through May ("Base Wastewater Cooling Mode"): one heat exchanger on-line only.

**Mill Maintenance:** Both scheduled and unscheduled maintenance operations occur on the OCC equipment and the paper machines. The majority of the maintenance operations are unscheduled with scheduled maintenance occurring every 7-8 weeks for approximately 16 hours. Maintenance operations can consist of any number of activities including maintenance, repair, or replacement of equipment. Certain maintenance-related activities can generate wastewater (e.g., wash-up water). In addition, a "boilout" operation is periodically (i.e., approximately once per year) performed as part of mill maintenance activities. This operation involves circulating a caustic cleaning solution through the

PM machines (i.e., headboxes/Fordrinier) for several hours in order to remove scale from the paper machine parts. The spent caustic material would then be neutralized and discharged into the wastewater collection system.

#### Miscellaneous Operations/Activities:

**Co-generation Operations:** In 2005, a dual-fuel co-generation unit (~14 MW) was installed at the RWC facility. The unit is located in a separate building beside the mill. This unit replaced the existing boiler at the site. The electricity generated by the co-generation unit is used for on-site operations; a small amount of electricity is reportedly distributed off-site. Steam is also generated from the unit; the steam is used on-site for various operations, including heating process water and process air heating. Feed water for the co-generation unit is provided by Oxoboxo Brook. This water is treated prior to use in the Boiler Water Treatment Room; treatment consists of carbon filtration, de-aeration, and cation exchange. Wastewater generated from the backwash of the carbon filters and the regeneration of the cation exchange columns is discharged into the PM U-drains. Other miscellaneous discharges associated with the operation of the co-generation unit discharge to the sewer, but through a connection point separate from the papermill wastewater discharge point.

**Secondary Boiler:** There is a separate boiler on-site used to provide heating to the "old" building at the mill. Well water is used for make-up to this boiler. The discharges associated with the operation of this boiler (e.g., boiler blowdown, sand filter backwash) discharge to the sewer but through a connection point separate from the papermill wastewater discharge point.

**Quality Control Labs:** There are two quality control labs near the paper machine; these are used for testing paper stock/quality. The wastewater generated from these labs is discharged to the sewer, but through a connection point separate from the papermill wastewater discharge point. There is also another lab on-site used for testing TSS in the wastewater. The wastewater generated from this lab is discharged into the sanitary sewer system.

**Stormwater Management:** The majority of the stormwater from the facility is directed to Oxoboxo Brook via GSI000723. In 2002, a stormwater diversion trench was installed near the compactor area in order to reduce the potential for discharging stormwater to Oxoboxo Brook that could contain plastic or paper debris from the compactor area. The system is designed to collect the first one inch from a storm event and direct it into the OCC Basement and then into the Pulper. Any stormwater in excess of an inch is directed to Oxoboxo Brook.

A summary of the wastestreams generated at the site is as follows:

Wastestreams that discharge via DSN 001:

WASTESTREAM	DESCRIPTION
Posiflow Cleaner Wastewater	Wastewater generated from cleaning/screening the paperstock in the centrifugal cleaners and the rotating mechanical screens.
Uniflow Cleaner Wastewater	
Screen Reject Wastewater	
Stock Prep Cleaner Reject Wastewater	Wastewater generated from cleaning the paperstock in the centrifugal cleaners
Clarifier Building Wastewater	Inadvertent spills, leaks from the DAF system
DAF Rejects	Sludge from the DAF system
Fordrinier Wastewater	Wastewater that is removed from the stock as it is processed through the Fordrinier. Under normal operations, this wastewater is re-used via the Save-All. However, this wastewater could be directed into the discharge collection system.
Press Wastewater	Wastewater that is removed from the paper sheet as it is processed through the Press. Under normal operations, this wastewater is re-used via the Save-All or discharged to the PM U-drains for re-use in the Pulper. However, this wastewater could be directed into the discharge collection system.
Whitewater	Process water that is used as a source of shower water for the Rotary Screen Thickener. Under abnormal operating conditions, the contents of the "Excess Whitewater Tank" will overflow to the CTM tank.
Compactor Filtrate	Wastewater generated as a result of compacting trash from the Pulper. Under normal conditions, the filtrate is directed to the OCC sump for re-use in the Pulper. However, this wastewater could be directed into

WASTESTREAM	DESCRIPTION
	the discharge collection system.
Seal Water	Water that is generated from the various mechanical seals at the facility is directed into the PM Basement U-drain for re-use. However, this wastewater could be directed into the discharge collection system.
Steam Condensate	Steam condensate from several areas in the mill are directed into the OCC Sump and re-used in the Pulper. However, this wastewater could be directed into the discharge collection system.
Starch Make-down System Flush Water	Water is flushed from the starch make-down system at the beginning of each batch of starch that is "cooked". The flush water, which reportedly does not contain any starch, is directed to the OCC U-drains under normal operating conditions. However, this wastewater could be directed into the discharge collection system.
Wash-up Water	Whitewater is used in the wash-up hoses throughout the facility in order to clean paper fiber/stock from the floors. This water is directed to the U-drains under normal operating conditions. However, this wastewater could be directed into the discharge collection system.
Press Shower Overspray/Machine Shower Water	Showers, fed by make-up water, are used to clean the fabrics that carry the paper sheet through the Fordrinier and the Press. This wastewater is directed to the PM-U drains and under normal operating conditions will be re-used.
AES Filter Backwash Water	The process water used for the showers and seals is filtered in the AES before use. The bank of filters used in this process is backwashed 3-4 times per day and the backwash water is discharged into the PM U-drains.
Non-contact Cooling Water	A small amount of non-contact cooling water is used to cool the paper scanner and is discharged into the PM U-drains.
Boiler Water Treatment System Condensate	Condensate and feed water from the boiler is discharged through several sampling ports into the PM-U drains.
Cooling Tower Blowdown	Blowdown from the Cooling Tower (former "Vacuum Pump Cooling Tower") is directed into the U-drains.
Boiler Regeneration Backwash Water	Wastewater generated from the backwash of the carbon filters and the regeneration of the cation exchange columns is discharged into the PM U-drains.
Potentially-contaminated Stormwater from the Compactor Area	The first inch of stormwater from the compactor area stormwater diversion trench is collected in the OCC sump and can be directed to the Pulper, for use, or into the collection system.
Boilout Wastewaters	A caustic solution is circulated through the paper machines to allow for scale deposits on the machine parts to be removed. As part of the process, a de-foaming solution is also used. The caustic solution is neutralized with muriatic acid and the solutions are discharged to the RCT.
Screw Press Filtrate	The screw press is used to de-water the belt press rejects. The filtrate generated from this operation is directed to the CTM Tank.
Tank and Chest Cleaning Wastewaters	The process tanks/chests are occasionally drained and cleaned (usually during schedule outages). These wastewaters (consisting of paper stock and water) are routed to collection system via the U-drains.

Wastestreams that discharge via General Permits:

WASTESTREAM	DESCRIPTION	GENERAL PERMIT
Co-generation Boiler Blowdown	Blowdown from the co-generation boiler	GMI000086
Boiler Blowdown Sample Cooler Condensate	Condensate associated with the sample cooler	GMI000086
Exhaust Stack Sample Cooling Condensate	Condensate associated with the sample cooler	GMI000086
Air Compressor Condensate	Condensate from the air compressor	GMI000086
Building Maintenance Wastewater	Wastewater generated from the washdown of the turbine and related equipment	GMI000086
Secondary Containment Stormwater	Stormwater that collects in the outside fuel/chemical containment area	GMI000086
Building Heat Boiler Blowdown	Blowdown from the secondary boiler	General Permit for the Discharge of Minor Boiler Blowdown Wastewater

WASTESTREAM	DESCRIPTION	GENERAL PERMIT
Sand Filter Backwater	Backwash associated with the sand filters used to filter the Oxoboxo Brook water	GWT000231
Backwash	Backwash associated with the system used to filter the well water	
Laboratory Wastewater	Wet End Lab: Test Paper Stock Drainage	
	Dry End Lab: Test Paper Absorption Properties	
	Environmental Lab: Test TSS of wastewater	
	Cogen Water Quality Lab: Test quality of the boiler water	

GMI000086 is issued to Northeast Generation Services

See Attachment 2 for the Line Diagram and Attachment 3 for the Chemical Inventory.

## VI. THE ON-SITE WASTEWATER TREATMENT SYSTEM

The wastewaters from the various on-site operations collect in the 4,000 gallon Rejects Collection Tank (RCT). Polymer is added to the wastewater in the RCT and it is conveyed to a Rotary Screen Thickener to remove solids. [The Rotary Screen Thickener was installed in 2011 to replace the Belt Filter Press]. The wastewater is then directed to a Screw Press which further de-waters the wastewater. Solids from the Screw Press are collected and shipped off-site; effluent from the Screw Press is directed to the 9,000 gallon "Collection, Transfer, Monitoring" (CTM) tank where pH adjustment, if necessary, is performed. The effluent from the CTM tank is transferred out the mill into the "Pre-Treatment Facility" to be treated in one of the two 3,000 gallon Krofta DAFs on-site. DAF rejects are collected in a holding tank and subsequently directed into the RCT and then to the Rotary Screen Thickener for solids removal. Treated wastewater from the DAF flows by gravity to a 3,000 gallon holding tank, to the Mueller plate-and-frame heat exchanger(s) for cooling, and back up to the Pre-Treatment Facility where the wastewater enters the dedicated pipeline to the Montville WPCF via DSN 001. This is a continuous discharge (24 hours per day 7 days a week); the average discharge flow is approximately 770,000 gallons per day.

## VII. EFFLUENT QUALITY DATA

See Attachment 4 for effluent quality data for RWC.

See Attachment 5 for effluent quality data for the Montville WPCF.

## VIII. EFFLUENT VIOLATIONS

Based on a review of the DMRs from 2009-2011, the following violations were identified:

MONTH/YEAR	DSN	PARAMETER VIOLATED	TYPE OF LIMIT	PERMITTED LIMIT	REPORTED VALUE
April 2010	001	pH, Day of Sampling	Grab	6.0 SU	3.9 SU
REASON: <input type="checkbox"/> Equipment Related <input type="checkbox"/> Operator Error <input type="checkbox"/> Other <input checked="" type="checkbox"/> Unknown					
No information provided.					

MONTH/YEAR	DSN	PARAMETER VIOLATED	TYPE OF LIMIT	PERMITTED LIMIT	REPORTED VALUE
August 2010	001	Total Suspended Solids	Average Monthly	4,350 lbs/day	6,488 lbs/day
REASON: <input checked="" type="checkbox"/> Equipment Related <input type="checkbox"/> Operator Error <input type="checkbox"/> Other <input type="checkbox"/> Unknown					
The source of the exceedence was determined to be caused by the mis-alignment of the belt press roll on the belt press. This caused the dewatering belt to crease, allowing higher than normal amounts of paper fiber to discharge to the CTM tank.					

MONTH/YEAR	DSN	PARAMETER VIOLATED	TYPE OF LIMIT	PERMITTED LIMIT	REPORTED VALUE
August 26, 2010 August 31, 2010	001	Total Suspended Solids	Maximum Daily	9,050 lbs/day	9,073 lbs/day 11,667 lbs/day
REASON: <input checked="" type="checkbox"/> Equipment Related <input type="checkbox"/> Operator Error <input type="checkbox"/> Other <input type="checkbox"/> Unknown					
The source of the exceedence was determined to be caused by the mis-alignment of the belt press roll on the belt press. This caused the dewatering belt to crease, allowing higher than normal amounts of paper fiber to discharge to the CTM tank.					

MONTH/YEAR	DSN	PARAMETER VIOLATED	TYPE OF LIMIT	PERMITTED LIMIT	REPORTED VALUE
February 2011	001	BOD <sub>5</sub>	Maximum Daily	18,700 lbs/day	19,892 lbs/day
REASON: <input type="checkbox"/> Equipment Related <input type="checkbox"/> Operator Error <input type="checkbox"/> Other <input checked="" type="checkbox"/> Unknown					
No information provided.					

MONTH/YEAR	DSN	PARAMETER VIOLATED	TYPE OF LIMIT	PERMITTED LIMIT	REPORTED VALUE
May 2011	001	BOD <sub>5</sub>	Maximum Daily	18,700 lbs/day	19,052 lbs/day
REASON: <input type="checkbox"/> Equipment Related <input type="checkbox"/> Operator Error <input type="checkbox"/> Other <input checked="" type="checkbox"/> Unknown					
Information submitted with the DMR indicated that several possible sources of the elevated levels of BOD <sub>5</sub> had been investigated but nothing conclusive was identified.					

MONTH/YEAR	DSN	PARAMETER VIOLATED	TYPE OF LIMIT	PERMITTED LIMIT	REPORTED VALUE
July 2011	001	BOD <sub>5</sub>	Maximum Daily	18,700 lbs/day	18,951 lbs/day
REASON: <input type="checkbox"/> Equipment Related <input type="checkbox"/> Operator Error <input type="checkbox"/> Other <input checked="" type="checkbox"/> Unknown					
Information submitted with the DMR indicated that several possible sources of the elevated levels of BOD <sub>5</sub> had been investigated (e.g., summertime water use conditions, process starch usage, replacement of the belt filter press, lab test variability) but nothing conclusive was identified.					

**IX. HISTORIC ENFORCEMENT (RELATED TO WASTEWATER ISSUES ONLY):**

See Attachment 6.

**X. SPILL HISTORY**

See Attachment 7.

**XI. EFFLUENT GUIDELINES**

RWC produces linerboard from corrugated containers (i.e., it is engaged in the production of paperboard from wastepaper). The discharge associated with this operation, DSN 001, is subject to 40 CFR 430 ("The Pulp, Paper, & Paperboard Point Source Category"), Subpart J ("Secondary Fiber Non-Deink Subcategory"). RWC initiated this discharge after January 6, 1981. Therefore, the Pretreatment Standards for New Sources (PSNS) at 40 CFR 430 apply to the discharge.



## XII. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

RESOURCES USED TO DRAFT PERMIT		INFORMATION USED	DISCHARGE POINT(S)
<input checked="" type="checkbox"/>	Federal Effluent Limitation Guideline (ELG)	40 CFR 430.107, July 1, 2011	DSN 001
<input checked="" type="checkbox"/>	Performance Standards	Thermal data	DSN 001
<input type="checkbox"/>	Federal Development Document		
<input type="checkbox"/>	Treatability Manual		
<input checked="" type="checkbox"/>	Department File Information	DMRs	DSN 001
<input checked="" type="checkbox"/>	Other	Agreements with the Town	DSN 001

BASIS FOR LIMITS, STANDARDS OR CONDITIONS		REGULATION	DISCHARGE POINT(S)
<input type="checkbox"/>	Pretreatment Standards for Existing Sources (PSES)		
<input checked="" type="checkbox"/>	Pretreatment Standards for New Sources (PSNS)	40 CFR 430.107	DSN 001
<input checked="" type="checkbox"/>	General Pretreatment Standards	40 CFR 403	DSN 001
<input checked="" type="checkbox"/>	Case-by-Case Determination using Best Professional Judgment (BPJ)	22a-430-4(m) 22a-430-4(t)	DSN 001

- A. **WASTESTREAMS AUTHORIZED FOR DISCHARGE:** DSN 001: Stock cleaning wastewaters including rejects from: Posiflow Cleaners, Uniflow Cleaners, Screening Wastewaters, Stock Prep Cleaners; Clarifier Building Wastewater, Building Fordrinier Wastewater, Press Wastewater, Whitewater, Compactor Filtrate, Wash-up Water, Press Shower Overspray/Machine Shower Water, AES Filter Backwash Water, Potentially-contaminated Stormwater, Boilout Wastewaters, Screw Press Filtrate, Boiler Regeneration Backwash Water, Cooling Tower Blowdown, Non-contact Cooling Water, Seal Water, Condensate from the Steam System, Boiler Water Treatment System Wastewaters, Starch Make-down System Flush Water, Tank and Chest Cleaning Wastewaters
- B. **MONITORING PARAMETERS & LIMITS:** DSN 001 consists of the wastewater generated from the papermill operations, which includes both process and non-process wastewaters. This is a continuous discharge and a new source. The discharge is subject to the requirements at 40 CFR 430.107. The discharge is also subject to certain permit limitations set forth in the Wastewater Treatment Agreement. A summary of the limits are noted below:

### DSN 001

PARAMETER	UNITS	40 CFR 430.107 NEW SOURCE		Schedule 3.1(a) of the Wastewater Treatment Agreement (1996 Modification)	
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily
Biochemical Oxygen Demand (BOD <sub>5</sub> )	lbs/day	---	---	14,000	16,000*
Flow	gpd	---	---	1,080,000	1,100,000
Pentachlorophenol	mg/L	---	---	ND	ND
pH	SU	---	---	6.0	9.0
Suspended Solids (SS)	lbs/day	---	---	4,350	5,750
Total Oil and Grease	mg/L	---	---	75	100
Trichlorophenol	mg/L	---	---	ND	ND
Total Dissolved Solids (TDS)	mg/L	---	---	monitor only	monitor only

\* While the Wastewater Treatment Agreement does presently include a limit of 16,000 lbs/day, RWC requested an increase to 18,700 lbs/day on August 22, 2012. The Town of Montville subsequently engaged its consultant, FST, to conduct an evaluation as to whether a BOD<sub>5</sub> loading of 18,700 lbs/day from RWC would have negative impacts on Montville's treatment facility. FST's evaluation, dated September 5, 2012, indicates that no impacts would likely be expected on a temporary basis (i.e., a 5-year time frame) should RWC be authorized to discharge up to 18,700 lbs/day of BOD<sub>5</sub>.

Comments on specific issues are as follows:

**Sampling Points:** Under SP0002032, the sample monitoring point is located prior to the DAFs ("DEP Monitoring Point"). However, the monitoring point identified in the Water Treatment Agreement ("Town Monitoring Point") is located after the DAFs. For consistency, both sampling points will now be located at the same point (i.e., "Town Monitoring Point") and will be known as DSN 001. The "DEP Monitoring Point" will continue to be used to measure the influent to the treatment system and will now be known as DSN 001A.

**BOD<sub>5</sub>:** The average BOD<sub>5</sub> measured at the “Town Monitoring Point” from 2007 to June 2011 has ranged from 8,359 lbs/day to 14,044 lbs/day; the maximum BOD<sub>5</sub> measured at the “Town Monitoring Point” from June 2007 to June 2012 has ranged from 11,137 lbs/day to 18,679 lbs/day. During this timeframe, RWC has been meeting the BOD<sub>5</sub> limits (of 14,000 lbs/day average monthly and 16,000 lbs/day maximum daily) at this point 98% and 98.7% of the time, respectively. [See Attachment 8]. The BOD<sub>5</sub> limits in the proposed permit will be 14,000 lbs/day (average monthly) and 18,700 lbs/day (maximum daily). The maximum daily BOD<sub>5</sub> limit is consistent with FST’s September 5, 2012 letter.

**Soluble BOD<sub>5</sub>:** A significant portion of the BOD<sub>5</sub> content in the effluent is soluble BOD<sub>5</sub>. Testing for soluble BOD<sub>5</sub> shall be conducted to monitor this level after treatment for BOD<sub>5</sub> is installed.

**Total Suspended Solids (TSS):** The average TSS measured at the “Town Monitoring Point” from 2007 to June 2011 has ranged from 161 lbs/day to 1,037 lbs/day; the maximum TSS measured at the “Town Sampling Point” from 2007 to June 2011 has ranged from 277 lbs/day to 5,659 lbs/day. During this timeframe, RWC has been meeting the TSS limits (of 4,350 lbs/day average monthly and 5,750 lbs/day maximum daily) at this point 100% of the time. [See Attachment 9]. The TSS limits presently set forth in the Wastewater Treatment Agreement will be the TSS limits in the permit.

**Total Dissolved Solids (TDS):** TDS will continue to be measured in the effluent. From 2007 to June 2011 the level of TDS in the effluent ranged from 5,351 mg/L to 6,740 mg/L.

**Temperature:** There is a thermal component to the discharge and therefore, effluent limits for temperature will be included in this permit. RWC currently has three plate-and-frame heat exchangers on-site. They are presently operated under one of the following proposed operational modes: Summer Mode, Maximum Heat Recovery Mode, and Base Wastewater Cooling Mode. The temperature limits included in the permit are interim limits and will be in place only until such time as final limits are determined. These interim temperature limits were determined as follows:

**Average Daily Limit:** The Standstill Agreement established temperature limits for RWC’s influent and effluent. Specifically, it noted that the temperature of the effluent discharged to the Town “...must not exceed 97 °F”. This limit has been interpreted to mean “average daily”. The 97 °F limit, established in 1998, was based on the use of one heat exchanger (Alfa Laval). Presently, this unit is no longer in service and has been replaced by the plate-and-frame heat exchangers. Therefore, it would be expected that a limit lower than 97 °F could be achieved. RWC proposed 95 °F. The data generated from August 2011 through September 2011 supports 95 °F as an interim limit. Therefore, 95 °F will be the interim average daily temperature limit. [See Attachment 10].

**Maximum Daily Limit:** The maximum temperature data from August 2011 to September 2011 ranged from 85.6 °F to 107.8 °F and the maximum temperature data from October 2011 to November 2011 ranged from 90.8 °F to 117.9 °F. The pretreatment prohibition at 40 CFR 403.5(b)(5) states that no discharge shall contain “...Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 °C (104 °F), unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.” Alternate temperature limits have been approved in this case. The maximum temperature limits are: 105 °F (summer months) and 117 °F (non-summer months). These limits are based on a statistical evaluation of the data generated since installation of the third heat exchanger; the summer limit is a maximum value of a two-hour rolling average and the non-summer limit is an instantaneous maximum value. [See Attachments 11 and 12].

**Pentachlorophenol & Trichlorophenol:** Section 40 CFR 430.107 requires production-based maximum daily limits on pentachlorophenol and trichlorophenol if the Permittee uses chlorophenolic-containing biocides at its facility. The Permittee indicates that it does not use chlorophenolic-containing biocides at its facility. [The Permittee has been monitoring its

discharge during this permit term for pentachlorophenol and trichlorophenol and neither compound has been detected at the reported minimum level]. The Water Treatment Agreement, however, requires that these parameters be monitored and that the results obtained be "non-detect". Therefore, SP0002032 will continue to require monitoring for these parameters with limits of "non-detect".

**pH:** The effluent will continue to be monitored for pH consistent with the standard limits for discharges to the sewer: 6.0 SU to 10.0 SU.

**Phenols:** Phenols will now be included for monitoring in this permit. Attachment O of the permit application indicates that the total phenols level in the effluent is 2.4 mg/L.

**Oil & Grease:** The effluent will continue to be monitored for oil and grease with limits consistent with the Water Treatment Agreement. From 2007 to 2011, the level of oil and grease in the effluent ranged from 20 mg/L to 100 mg/L.

**Total Sulfate:** Sulfate will now be included for monitoring in this permit as it could be present in the discharge. Attachment O of the permit application indicates that sulfate levels in the effluent range from 520 mg/L to 1,300 mg/L.

**Total Cyanide:** Cyanide will now be included for monitoring in this permit as it could be present in the discharge (i.e., by way of the Spectrum RX3801).

- C. **MONITORING FREQUENCY:** The *Monitoring Schedule* set forth in RCSA 22a-430-3 prescribes a frequency of weekly for DSN 001 based on the category of discharge ("Pulp and Paper Mills") and the average permitted monthly flow (>50,000 gpd). RWC is presently testing the BOD<sub>5</sub> and TSS twice per week in accordance with the Water Treatment Agreement. This will therefore continue to be the monitoring frequency in this proposed permit. Monitoring for the other parameters in the discharge will be weekly in accordance with the *Monitoring Schedule*, unless a particular parameter warrants a less frequent schedule. The minimum frequency of monitoring shall be semi-annual as set forth in 40 CFR 403.12(e).

## **XII. SPECIAL CONDITIONS**

- A. **CERTIFICATION:** Section 40 CFR 430.107 requires that Permittees not using chlorophenolic-containing biocides must certify to the permit-issuing authority that they are not using these biocides.
- B. **NOTIFICATION:** If the Permittee submits notification seeking approval for the use of any new chemicals at the site, the Permittee shall, with that notification, provide information that evaluates the impact (e.g., interference, pass-through, etc.), that the use of that chemical would have on the Montville WPCF.
- C. **PIPELINE CLEANING:** The Permittee currently "pigs" the dedicated wastewater discharge pipeline twice per week in the summer months and once per week in the non-summer months in order to minimize the build-up of any solids in the line. This activity shall continue at these frequencies or any alternate frequency prescribed by the Montville WPCF.
- D. **SURGE BASIN OPERATION:** The Surge Basin provides for management of "excess water" in the mill. The operation of the Surge Basin occurs in accordance with the Surge Basin SOP. The most current, Department-approved Surge Basin SOP shall be maintained in full effect.
- E. **ANAEROBIC DIGESTER:** The Permittee is planning on installing an anaerobic digester to treat its wastewater. Should this occur, the Permittee will be required to comply with certain additional requirements.
- F. **TEMPERATURE STUDY:** The Permittee's effluent includes a thermal component. Consequently, the proposed permit will contain limits for temperature for DSN 001. In July 2011, the Permittee installed a third heat exchanger to treat its effluent prior to discharge to the Montville WPCF. Because this unit was only recently installed, there is only a limited amount of data available to determine temperature limits. Therefore, in order to develop final limitations for temperature, the

Permittee shall collect additional data so that final temperature limits can be established. If the Permittee installs the proposed anaerobic digester at the site, then an evaluation of the temperature-reducing capabilities of this system should be determined.

- G. **BOD<sub>5</sub> LIMIT:** The BOD<sub>5</sub> limit of 18,700 lbs/day is a five-year temporary limit, consistent with the findings of an evaluation conducted by the Town of Montville's consultant, Fay Spofford & Thorndike, and summarized in a letter dated September 5, 2012.

### **XIII. COMMENTS RECEIVED DURING THE COMMENT PERIOD**

The draft permit was public noticed in the *New London Day* on September 27, 2012 for a thirty-day comment period.

The only comment received by the Department came from the applicant and involved a proposed language change concerning Paragraph 8(G) of the permit. Specifically, the applicant proposed that this paragraph be revised as follows:

*"Consistent with the September 5, 2012 letter from the Town of Montville's consultant, Fay, Spofford & Thorndike, the maximum daily BOD<sub>5</sub> limit of 18,700 lbs/day is a five-year temporary limit. Upon expiration of this permit, a maximum daily BOD<sub>5</sub> limit of 16,000 lbs/day shall take effect unless an alternative limit is proposed by the Permittee and approved by the Commissioner."*

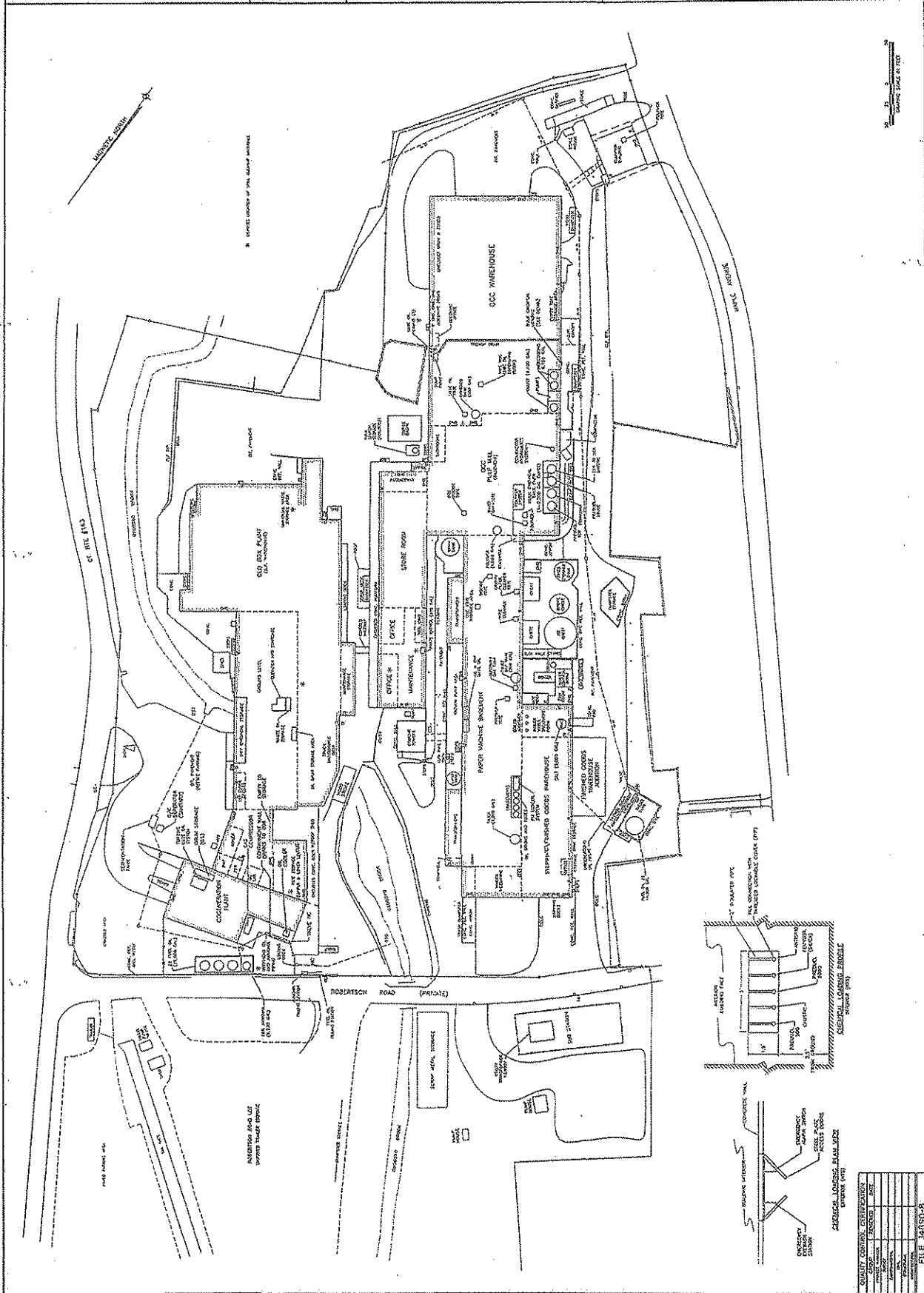
The Bureau of Materials Management and Compliance Assurance staff has reviewed the written comment and does not feel that the tentative determination/draft permit should be modified as proposed. The Town of Montville has conditionally approved the BOD<sub>5</sub> increase for a five-year term only. Should the Town be willing to extend the term of the BOD<sub>5</sub> increase beyond the current five year term, the applicant can seek a modification of its permit prior to its expiration. However, a change was made to Paragraph 8(G) in order to clarify the exact date on which the temporary limit expires. This paragraph now reads:

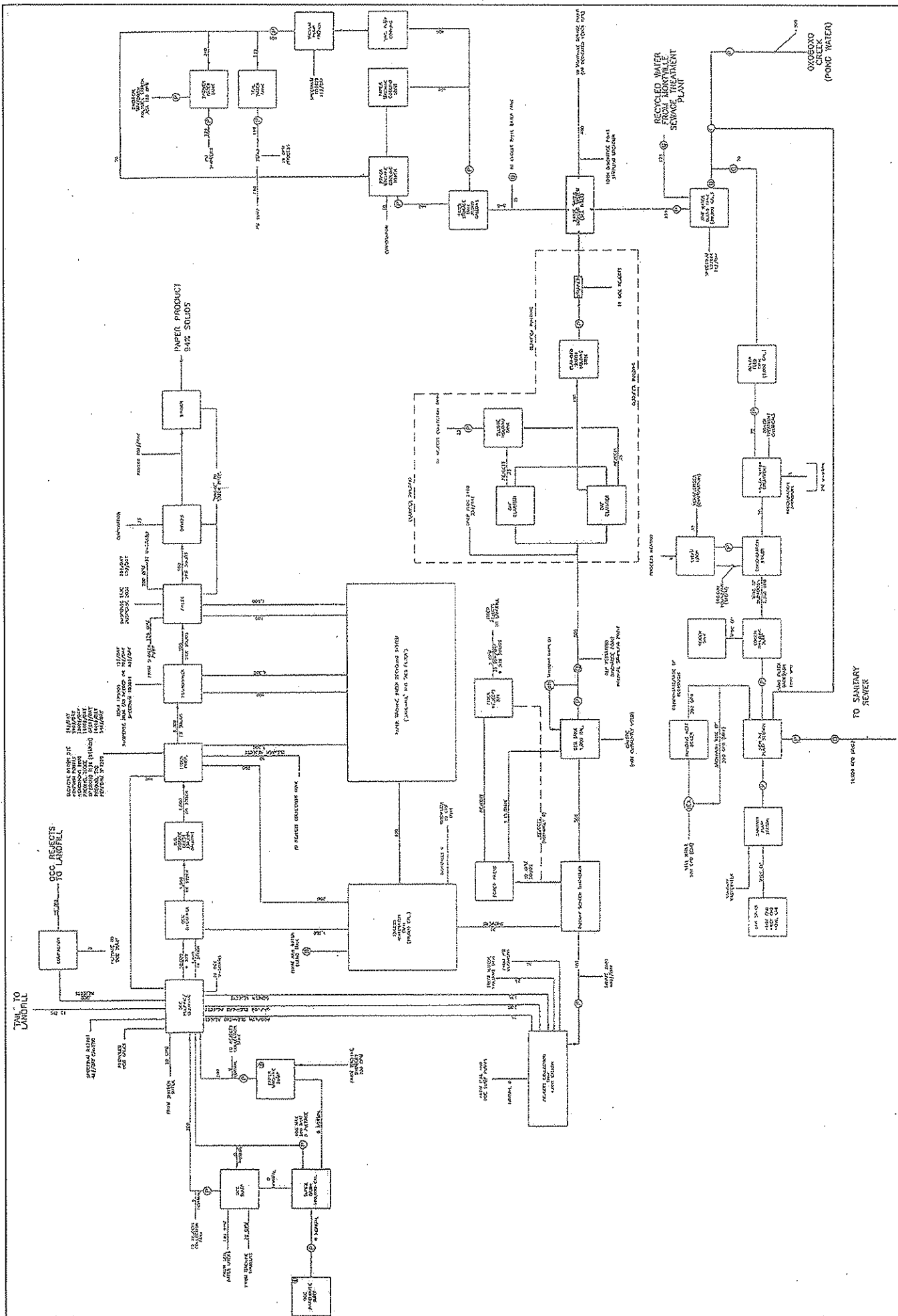
*"Consistent with the September 5, 2012 letter from the Town of Montville's consultant, Fay, Spofford & Thorndike, the maximum daily BOD<sub>5</sub> limit of 18,700 lbs/day is a five-year temporary limit. On November 13, 2017, a maximum daily BOD<sub>5</sub> limit of 16,000 lbs/day shall take effect."*

[illegible]

SHEET  
1 OF 1

2  
17  
6  
2



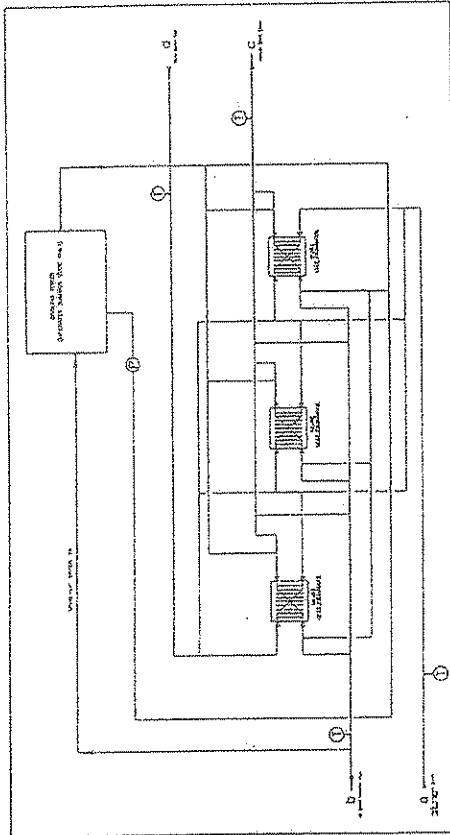


WATER BALANCE ESTIMATE (GPD - AVERAGE)

	OUT	IN (NORMAL)	IN (SUMMER)	MAX
WASTEWATER	591,200			1,000,000
CCC REJECTS	2,800			
FIBER REJECTS	4,300			
EVAPORATION-DRIER	144,000			
EVAPORATION-COOLING TOWER	14,100			
PAPER	7,200			
FORM/OVERDRY	2,800			
WPC- RECYCLED	2,800			
TOTAL	841,200			841,200

NOTES:

- 1) WATER AND WASTEWATER DISCHARGE FOR BALANCE ESTIMATES ARE APPROXIMATE AVERAGE GPM BASED ON 2010 PRODUCTION LEVELS.
- 2) ALL VALUES ARE GPM UNLESS OTHERWISE NOTED.
- 3) \_\_\_\_\_ DENOTES MAJOR ROUTE OF RECYCLED PAPER/STOCK/PAPER.
- 4) \_\_\_\_\_ DENOTES MAJOR WASTEWATER FLOW ROUTE.
- 5) (P) DENOTES PUMP
- 6) (F) DENOTES FLOWMETER
- 7) (S) SAND FILTER
- 8) INSIDE NOTED "NORMAL" FLOW RATES CORRESPOND TO RIVER FLOWS ABOVE REGULATORY THRESHOLD (i.e. NOVEMBER-JUNE) ; "SUMMER" FLOW RATES CORRESPOND TO LOW RIVER FLOW RATE PERIODS.
- 9) PAPER MACHINE SHOWERS CONSIST OF NO MORE THAN 20 INDIVIDUAL SHOWER BARS OF VARYING NOZZLE SIZE AND SPACING.
- 10) CHEMICAL WASTEWATER IS USED FOR PAPERFORM SHEET'S OPERATED 1129 STARTCH AND FREQUENT 2000 WAGGON.
- 11) OCC AND PAPER MACHINE SHOPS RECEIVE WATER FROM THE U-DRAIN SYSTEM. IN ADDITION TO REGULAR FLOWS WATER ENTERS THE U-DRAIN THROUGH THE FOLLOWING PROCESSES:
  - WATER WASHING
  - FILTER BACKWASH
  - LINE DRAINING
  - SINK DRAIN
- 12) WASTE WATER COOLING SYSTEM OPERATIONS VARY SEASONALLY. SEE POINT APPROXIMATION FOR DETAILS.



WASTE WATER COOLING SYSTEM

RAND WHITNEY CONTAINERBOARD L.P.

MAPLE AVENUE, ROBERTSON ROAD  
& CT. RTE. #163  
MONTVILLE, CONNECTICUT

DATE	DESCRIPTION
6/15/11	REVISED (SRH)
2/08/11	REVISED (WES)
1/26/11	REVISED
12/20/09	ADDED "OLD" MILL
11/28/09	ADDED CHEMICAL ADDITIVES AND
	MISC. PIPELINES
DATE: MAY 18, 1999	
SCALE: NONE	

WATER BALANCE  
BLOCK FLOW DIAGRAM

# Rand-Whitney Containerboard LP: Process Chemicals and Fuel used 1-2011

Description	Product Currently in Use		Other Ingredients (per MSDS)	Approx. Size	Tank/Tote Use Location	Daily usage	Notes	Appendix B or D substances
	Trade Name	Manufacturer						
Fuel Oil	#2 Fuel Oil	Various		49,500 Gal. Tank	Outside Roll Warehouse	As Needed		No
Fuel Oil	#2 Fuel Oil	Various		270 Gal. Tank	Outside Roll Warehouse	As Needed		No
Fuel Oil	#2 Fuel Oil	Various		3 - 29,000 Gal. Tanks	Cogen Tank Farm	As Needed		No
Aqua Ammonia		H.K. Krevit	19% Aqueous Ammonia	9,200 Gal. Tank	Cogen Tank Farm	As Needed		No
Sodium Hydroxide	Caustic	H.K. Krevit	25-50% NaOH in water	9,200 Gal. Tank	OCC Basement	As Needed		No
Size	Prequel 2000	Ashland		9,200 Gal. Tank	OCC Basement	1560 #/day	Synthetic Rosin	No
Size Emulsion	Prequel 500	Ashland		9,200 Gal. Tank	OCC Basement	1560 #/day	Starch solution	No
Strength Aid	Hercobond 6800	Ashland		2 - 6,100 Gal Tanks	OCC Warehouse	936 #/day		No
Felt Cleaner	Busperse 213E	Buckman	KOH, diethylene glycol monobutyl ether	6,100 Gal Tanks	OCC Warehouse	100 #/day		No
Retention aid	NP2180	Eka	Amorphous Silica	9200 Gal. Tank	PM Basement	450 #/day		No
Cationic Starch	Optibond 1139	National Starch		100,000 lbs. - Silo	By Surge Basin	14040 #/day	Also in 2000 # bags	No
Frictionizer	PA 5990	Eka	Silica, Glycerin	4000 Gal. Tank	PM Basement	800 #/day	Also stored in drums	No
Dye	Elcozine Brown	Greenville colorants	Proprietary dyes + acetic acid	300 Gal. Tote	OCC Basement	56 #/day	Also stored in 300 gal. Totes	No
Polymer	Perform PC8713	Ashland	Cationic Polymer	1000 Gal Tank	OCC Basement	273 #/day		No
Polymer	Drewfloc 2410	Ashland	a	300 Gal. Tote	Clarifier Bldg.	25 #/day		No
Polymer	Drewfloc 2433	Ashland	b	300 Gal Tote	OCC Basement	405#/day		No
Cleaner	Busperse 2036	Buckman	Surfactant, Caustic	300 Gal Tote	PM Basement	As Needed		No
Foam Control	Protocol CB2010	Ashland	Peg Ester, Polymer	300 Gal Tote	PM Basement	As Needed		No
Wire Passivation	Zenix FP5500	Ashland	Cationic Polymer	300 Gal Tote	PM Basement	15 #/day		No
Biocide	Spectrum xd 3899	Ashland	Ammonium bromide	300 Gal Tote	OCC Basement	As Needed		No
Biocide	Spectrum rx3801	Ashland		300 Gal Tote	OCC Basement	60 #/day		No
Boiler Chelant	Optisperse AP0200	Ashland	c	300 Gal Tote	Boiler Water Treat Room	As Needed		No
Boiler Amine	Steamate PAS4000	Ashland	d	300 Gal Tote	Boiler Water Treat Room	As Needed		No
Cooling tower treatment	Drew 2301	Ashland	e.	300 Gal Tote	Cooling Tower	10#/day		No
Heat transfer fluid	Intercool NFE	Interstate chemical	Ethylene glycol	55 gallon drums	Heating loop	As Needed		No
Oxygen Scavenger	Control IS1050	Ashland	Sodium Sulfite	55 gallon drums	Boiler Water Treat Room	As Needed		No
Boiler Treatment Salt	n/a	Various	Sodium Chloride	3000 Gal. Tank	Boiler Water Treat Room	As Needed		No
Lubricant/Hydraulic Oil	Various	Various	No	Tanks, Totes + Drums	PM Basement	As Needed	Also OCC Warehouse	No
Sodium Hypochlorite	various	Various		300 Gal Tote	OCC Basement	As Needed		No

## Additional "other" constituents listed on MSDS:

- Cationic PolymerAlcohols (C12-C18), ethoxylated
- ALCOHOLS, C12-18, ETHOXYLATED >1<2.5MOLE
- Nitrilotriacetic Acid, Sodium Molybdate, Sodium Nitrate
- Cyclohexylamine, methoxypropylamine
- WATER ORGANIC SALT ACRYLIC POLYMER ORGANIC SALT POLYMER SALT



# ATTACHMENT 4: EFFLUENT QUALITY DATA

RAND WHITNEY CONTAINERBOARD LP

## DSN 001A

PARAMETER	Units	Limits		2007					2008					2009					2010					2011 (to September)				
		AVE	MAX	AVE OR Min pH	Exceedences	MAX OR Max pH	Exceedences	n	AVE OR Min pH	Exceedences	MAX OR Max pH	Exceedences	n	AVE OR Min pH	Exceedences	MAX OR Max pH	Exceedences	n	AVE OR Min pH	Exceedences	MAX OR Max pH	Exceedences	n	AVE OR Min pH	Exceedences	MAX OR Max pH	Exceedences	n
BOD <sub>5</sub>	mg/L	---	3,105	2,387		3,510	1	98	2,380		3,228	2	98	1,922		2,718	0	98	2,013		2,868	0	98	2,132		2,982	0	84
BOD <sub>5</sub>	lbs/day	16,300	18,700	13,292	0	17,590	0	98	12,915	0	18,558	0	98	11,794	0	16,762	0	98	12,342	0	16,468	0	98	13,395	0	19,892	3	84
TSS	mg/L	---	1,500	232		1,355	0	98	306		860	0	98	337		1,000	0	98	425		1,940	1	98	288		840	0	84
TSS	lbs/day	4,350	9,050	1,293	0	6,904	0	98	1,667	0	6,226	0	98	2,049	0	6,173	0	98	2,839	1	11,667	1	98	1,821	0	5,969	0	84
Flow, Monthly	gpd	1,080,000	1,100,000	NR		NR			NR		NR			729,304	0	1,038,000	0	CN	710,261	0	909,000	0	CN	744,446	0	973,000	0	CN
Flow, Day of Sampling	gpd	---	1,100,000			871,000	0	98			870,000	0	98			984,000	0	98			909,000	0	98			973,000	0	84
Flow, Instantaneous	gpm	---	---	501		868		98	471		807		98	537		1,050		98	528		869		98	545		994		84
pH, Continuous	SU	6.0	10.0	6.1	0	9.9	0	CN	6.3	0	9.1	0	CN	6.4	0	9.4	0	CN	6.6	0	9.0	0	CN	7.0	0	8.6	0	CN
pH, Day of Sampling	SU	6.0	10.0	6.3	0	9.9	0	98	6.0	0	10.0	0	98	6.4	0	9.4	0	98	3.9	1	9.9	0	98	7.0	0	9.3	0	84
Oil & Grease, Total	mg/L	---	100	21		94	0	98	30		100	0	98	21		100	0	98	14		94	0	98	11		28	0	84
Total Dissolved Solids	mg/L	---	---	6,231		6,740		4	4,968		6,290		4	4,774		5,228		4	5,181		5,916		4	5,600		6,532		3
Settleable Solids	mg/L	---	---	14		48		98	15		60		98	30		115		98	26		395		98	11		130		84
Pentachlorophenol	µg/L	0.00	0.00	0.00	0	0.00	0	1	0.00	0	0.00	0	1	0.00	0	0.00	0	1	0.00	0	0.00	0	1	0.00	0	0.00	0	1
Trichlorophenol	µg/L	0.00	0.00	0.00	0	0.00	0	1	0.00	0	0.00	0	1	0.00	0	0.00	0	1	0.00	0	0.00	0	1	0.00	0	0.00	0	1

## DSN 001

PARAMETER	Units	Limits		2007					2008					2009					2010					2011 (to mid-June)				
		AVE	MAX	AVE	Exceedences	MAX	Exceedences	n	AVE	Exceedences	MAX	Exceedences	n	AVE	Exceedences	MAX	Exceedences	n	AVE	Exceedences	MAX	Exceedences	n	AVE	Exceedences	MAX	Exceedences	n
BOD <sub>5</sub>	lbs/day	14,000	16,000	11,426	0	16,056	1	104	11,845	0	16,398	1	103	10,359	0	14,208	0	104	11,101	0	14,377	0	103	11,760	0	15,947	0	52
BOD <sub>5</sub> Removal (Average)	%	---	NA	14					10					11					9					9				
BOD <sub>5</sub> Removal (Range)	%	---	---	0-43					0-36					0-30					0-79					0-46				
Flow	gpd	1,080,000	1,100,000	611,904	0	797,000	0	CN	608,550	0	800,000	0	CN	680,567	0	934,000	0	CN	682,269	0	876,000	0	CN	704,865	0	906,000	0	CN
TSS	lbs/day	4,350	5,750	317	0	776	0	104	248	0	895	0	103	311	0	1,161	0	104	376	0	1,135	0	103	417	0	5,659	0	52
TSS Removal (Average)	%	---	NA	73					81					79					78					81				

**ATTACHMENT 5: INFLUENT/EFFLUENT QUALITY DATA**  
MONTVILLE WATER POLLUTION CONTROL FACILITY

INFLUENT	PARAMETER	Units	Limits		2009				2010				2011 (to October)			
			Ave	Max	Ave	Exceedences	Max	Exceedences	Ave	Exceedences	Max	Exceedences	Ave	Exceedences	Max	Exceedences
	BOD <sub>5</sub>	lbs/day	24,000	36,000	14,749	0	26,918	0	17,377	0	28,123	0	17,555	0	35,453	0
	BOD <sub>5</sub>	mg/L			634				770				778			
	TSS	mg/L			276				298				272			

EFFLUENT	PARAMETER	Units	Limits		2009				2010				2011 (to October)			
			Ave	Max	Ave OR Min pH	Exceedences	Max OR Max pH	Exceedences	Ave OR Min pH	Exceedences	Max OR Max pH	Exceedences	Ave OR Min pH	Exceedences	Max OR Max pH	Exceedences
	BOD <sub>5</sub>	mg/L	30	45	8	0	15	0	9	0	22	0	15	0	24	0
	Chlorine, Total Residual	mg/L		1.5	0.7	0	1.2	0	0.5	0	0.9	0	0.6	0	1.1	0
	Fecal coliform	#			11.3		50		15.2		113		13.6		53	
	Flow	MGD	4.5		2.0	0	3.5		1.8	0	8.4		1.9	0	3.3	
	pH	SU	6.0-9.0		6.7	0	7.7	0	6.5	0	7.7	0	6.9	0	7.9	0
	TSS	mg/L	30	45	6.9	0	25	0	6.4	0	22	0	8.8	0	24	0
	Total Nitrogen	lbs/day			89				82				133			
	Toxicity, <i>Daphnia pulex</i>	%	NOAEL=100		100				98-100				98-100			
	Toxicity, <i>Pimephales promelas</i>	%	NOAEL=100		98-100				98-100				94-97			

	PARAMETER	Units	Limits		2009				2010				2011 (to October)			
			Min		Min	Exceedences			Min	Exceedences			Min	Exceedences		
	Percent BOD <sub>5</sub> Removal		85%		98	0			98	0			97	0		
	Percent TSS Removal		85%		97	0			96	0			95	0		

**ATTACHMENT 6**  
**SUMMARY OF ENFORCEMENT: 1995-present**

<b>DATE:</b> August 29, 1995	<b>ENFORCEMENT:</b> Notice of Violation
1. Discharged wastewater associated with paper manufacturing operations to the Oxoboxo Brook. 2. Maintained a by-pass of collection or treatment facilities. 3. Failed to properly operate and maintain the wastewater collection system. 4. Failed to maintain practices, procedures, and facilities designed to prevent, minimize, and control spills, leaks, or other unplanned releases. 5. Failed to provide adequate equalization to prevent upsets, malfunctions or instances of non-compliance resulting from variations in wastewater strength or flow rate. 6. Failed to monitor for Total Dissolved Solids on a quarterly basis. 7. Failed to obtain prior approval for discontinuing the use of the polymer addition system associated with the sludge dewatering operations.	

<b>DATE:</b> May 15, 1998	<b>ENFORCEMENT:</b> Notice of Violation (NOV WR SW 98 104)
1. Failed to submit stormwater monitoring results for October 1, 1996-September 30, 1997.	

<b>DATE:</b> July 8, 1998	<b>ENFORCEMENT:</b> Consent Order (WC 5253)
Issued to address the nine spills from the facility.	

<b>DATE:</b> May 24, 2000	<b>ENFORCEMENT:</b> Notice of Violation (NOV WR SW 00 136)
1. Failed to sample stormwater for the required parameters.	

<b>DATE:</b> June 1, 2001	<b>ENFORCEMENT:</b> Notice of Violation (NOV WR IN 01 030)
1. Failed to collect a flow-proportioned sample. 2. Maintained no or incomplete records of facility monitoring. 3. Failed to report the results of all discharge monitoring (extra BOD and TSS not reported). 4. Failed sample TSS and O&G in the correct location.	

<b>DATE:</b> September 19, 2001	<b>ENFORCEMENT:</b> Notice of Violation (NOV WR IN 01 08 RL)
1. Failed to notify for a by-pass.	

<b>DATE:</b> November 5, 2002	<b>ENFORCEMENT:</b> Notice of Violation (NOV WR IN 02 054)
1. Failed to analyze samples using required methods for pentachlorophenol and trichlorophenol. 2. Failed to maintain good housekeeping at the facility.	

<b>DATE:</b> March 15, 2010	<b>ENFORCEMENT:</b> Consent Order (WC 5516)
Issued for treatment performance problems; failure to notify for changes to wastewater quality; effluent violations; spills; failure to operate and maintain the facility in order to avoid spills; failure to notify for facility modifications; failure to monitor the discharge in accordance with the terms and conditions of the permit	

# ATTACHMENT 7

SPILLS: 1995-2011

<b>DATE:</b> July 5, 1995	<b>AMOUNT:</b> 90 gallons	<b>REASON:</b>	<input type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> An operator left the control valve to the Coarse Screen Rejects Collection Tank in manual mode instead of automatic mode. This resulted in the tank overflowing when it reached capacity. The process water from the tank flooded the OCC Basement and then the OCC Warehouse where it exited the building and entered Oxoboxo Brook through a storm drain.			

<b>DATE:</b> July 5, 1995	<b>AMOUNT:</b> 10 gallons	<b>REASON:</b>	<input type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> An operator left the CTM wastewater valve in automatic mode instead of manual mode. This resulted in the valve completely opening up allowing 1,700 gpm of water to be pumped from the Pre-Treatment Building. Since the capacity of the dedicated sewer line is only about 1,300 to 1,400 gpm, an overflow occurred which released 10 gallons of process wastewater into Oxoboxo Brook via a storm drain.			

<b>DATE:</b> August 7, 1995	<b>AMOUNT:</b> 3,120 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> A loss of power to the main process control computer resulted in many process tanks overflowing causing the OCC Basement to get flooded which resulted in process water from the OCC Basement to be released outside the building. Some of the process water ended up in Oxoboxo Brook and some of it entered the ground.			

<b>DATE:</b> November 27, 1996	<b>AMOUNT:</b> 600 gallons	<b>REASON:</b>	<input type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input checked="" type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> As a result of a power loss, water overflowed the process equipment and collected in the OCC basement, but could not be effectively transferred to the Surge Basin because the U-drains in the OCC basement were clogged with paper solids and plastics. As a result, process water exited the OCC Basement, the OCC Warehouse, and was discharged into Oxoboxo Brook.			

<b>DATE:</b> November 27, 1996	<b>AMOUNT:</b> 4,500 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> As a result of the power loss noted above, a make-up water valve associated with the cooling tower system failed open and could not be closed due to a damaged control circuit. This resulted in cooling water from the system overflowing an associated sump. The pump in the sump could not keep up with the additional flow. This resulted in 4,500 gallons of cooling water discharged to Oxoboxo Brook.			

<b>DATE:</b> December 3, 1996	<b>AMOUNT:</b> 2,250 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> An exterior valve associated with the "wash-up" hose near the Surge Basin broke due to freezing. Approximately 2,250 gallons of process water was discharged overland to Oxoboxo Brook.			

<b>DATE:</b> December 3, 1996	<b>AMOUNT:</b> 600 gallons	<b>REASON:</b>	<input type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> During facility start-up, a valve was left closed instead of being opened. This resulted in approximately 600 gallons of process water discharged outside of the facility.			

# ATTACHMENT 7

SPILLS: 1995-2011

<b>DATE:</b> January 13, 1997	<b>AMOUNT:</b> 6,000 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> During a facility shutdown, two valves failed to completely close resulting in process water to overflow onto the floor and out of the facility. Approximately 6,000 gallons exited the facility.			

<b>DATE:</b> July 7, 1997	<b>AMOUNT:</b> 100 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> A purge valve that allows sludge/wastewater to be removed from the bottom of the DAFs failed to close. The pump in the area could not keep up with the added amount of sludge/wastewater that entered the associated sump resulting in an overflow outside the building. Approximately 100 gallons of this wastewater entered Oxoboxo Brook via the storm drain system.			

<b>DATE:</b> August 15, 1997	<b>AMOUNT:</b> 6,000 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The facility's air compressors shut down initiating a facility shutdown. The PM cooling tower sump could not keep up with the excess amount of cooling water entering the system. A discharge of approximately 6,000 gallons of cooling water overflowed the sump and entered Oxoboxo Brook via the storm drain system.			

<b>DATE:</b> September 21, 1997	<b>AMOUNT:</b> 300 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> A valve was stuck in the closed position during facility start-up causing process water to discharge into the OCC Basement. The Surge Basin was not completely utilized resulting in the U-drains in the basement to become overwhelmed. Consequently, the process water overflowed the berms, exited the facility, and entered Oxoboxo Brook.			

<b>DATE:</b> September 25, 1997	<b>AMOUNT:</b> 100 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> A pump failed to operate during facility start-up causing process water to discharge into the OCC basement. The Surge Basin was not completely utilized resulting in the U-drains in the basement to become overwhelmed. Consequently, the process water overflowed the berms, exited the facility, and entered Oxoboxo Brook.			

<b>DATE:</b> July 27, 1998	<b>AMOUNT:</b> 2,500 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The cooling water return pump failed resulting in an overflow of cooling water from the "Vacuum Pump Cooling Tower". Approximately 2,500 gallons discharged into Oxoboxo Brook.			

<b>DATE:</b> August 25, 1998	<b>AMOUNT:</b> 300 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> Loss of level indication in the flat box seal tank caused by a blown fuse resulted in the tank overflowing and causing process wastewater to enter the PM Basement. The excess water then flowed from the Surge Basin to the OCC Basement instead of the RCT. This caused the OCC Basement to overflow into the OCC Warehouse and out to Oxoboxo Brook.			

# ATTACHMENT 7

SPILLS: 1995-2011

<b>DATE:</b> January 8, 1998	<b>AMOUNT:</b> 300-500 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> A leak in the Surge Basin return piping caused by a loose coupling on the outdoor portion of the piping resulted in the discharge of process water onto the ground and driveway.			

<b>DATE:</b> December 2, 1999	<b>AMOUNT:</b> ?	<b>REASON:</b>	<input type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> A fire in the paper dryer caused process water to overflow and flood the PM Basement. The control room operators' attention was directed to addressing the fire and staff was not aware that the Surge Basin valve was closed. This resulted in wastewater being directed from the PM Basement to the outside tank farm where the wastewater overflowed the containment curbing and entered Oxoboxo Brook via the storm water collection system.			

<b>DATE:</b> November 17, 2000	<b>AMOUNT:</b> 500-750 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> A transfer pump associated with the temporary evaporative cooling tower failed causing the cooling tower sump to overflow into a nearby storm drain which discharges to Oxoboxo Brook.			

<b>DATE:</b> May 22, 2001	<b>AMOUNT:</b> 300 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The failure of the mill's DCS system and failure of the gravity drain line in the PM Basement caused process water to overflow out the Winder Bay Door, into a compromised exterior containment system and then into Oxoboxo Brook.			

<b>DATE:</b> September 12, 2001	<b>AMOUNT:</b> 100 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The "Save-All" clogged causing process water to flood the PM Basement. Not all of the water that should have been transferred to the Surge Basin was transferred resulting in excess water remaining in the PM Basement. The excess water then exited the Winder Bay Door into exterior containment that was broken then was directed onto the pavement.			

<b>DATE:</b> May 13, 2004	<b>AMOUNT:</b> 40 gallons	<b>REASON:</b>	<input type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input checked="" type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> Process water entered the OCC Basement as a result of a manual valve on the Secondary Fine Screen Feed Tank that had been left open. Some of the U-drains were clogged with paper which resulted in the process water to flow into the uncontained portion of the OCC Warehouse and then exited the building onto the pavement via the loading docks.			

<b>DATE:</b> January 28/29, 2006	<b>AMOUNT:</b> 2,500 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The nozzle used to recirculate wastewater in the Surge Basin rotated and directed process water outside of the contained area.			

# ATTACHMENT 7

SPILLS: 1995-2011

<b>DATE:</b> October 10, 2008	<b>AMOUNT:</b> 6,000-7,000 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The level sensor on the High Density tank failed causing the tank to overflow. The associated containment also overflowed and this resulted in approximately 6,000-7,000 gallons of process water to enter Oxoboxo Brook.			

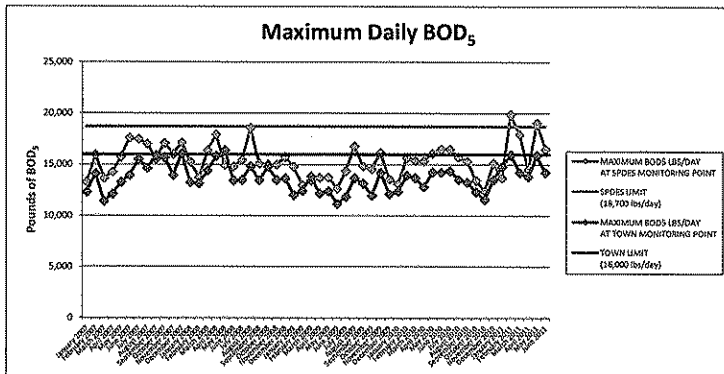
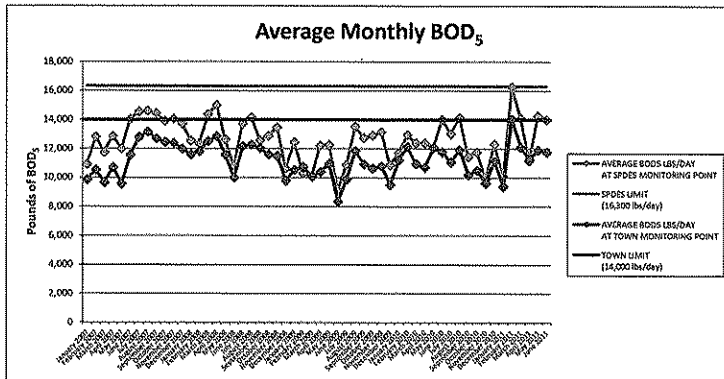
<b>DATE:</b> March 2009	<b>AMOUNT:</b> 12,000 gallons	<b>REASON:</b>	<input type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The valve to an exterior tank was left open allowing approximately 12,000 gallons of process water to be released. Approximately 6,000 gallons was cleaned up by a contractor.			

<b>DATE:</b> May 28, 2011	<b>AMOUNT:</b> 50 gallons	<b>REASON:</b>	<input checked="" type="checkbox"/> Equipment Malfunction <input checked="" type="checkbox"/> Operator Error <input type="checkbox"/> Housekeeping <input type="checkbox"/> Other
<b>DESCRIPTION:</b> The valve that controls the flow of cooling water to the cooling tower opened to twice its normal level. This resulted in an excess amount of cooling water entering the cooling tower system. The pump in the cooling tower sump could not keep up with the excess flow and approximately 50 gallons of cooling water exited the containment and entered Oxoboxo Brook. The high level alarm associated with the cooling tower sump activated in the Control Room, but the alarm condition was not responded to.			

# ATTACHMENT 8

## BOD<sub>5</sub> DATA

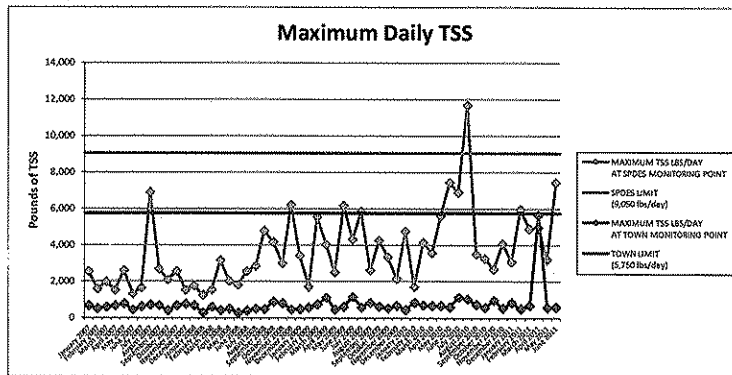
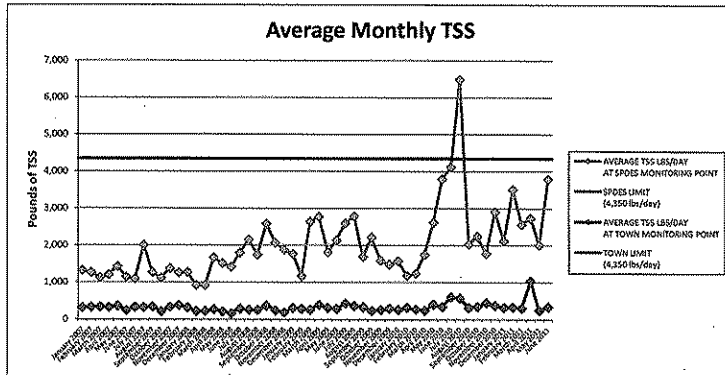


	AVERAGE BOD <sub>5</sub> , LBS/DAY AT SPDES MONITORING POINT	AVERAGE BOD <sub>5</sub> , LBS/DAY AT TOWN MONITORING POINT	MAXIMUM BOD <sub>5</sub> , LBS/DAY AT SPDES MONITORING POINT	MAXIMUM BOD <sub>5</sub> , LBS/DAY AT TOWN MONITORING POINT
<b>LIMITS:</b>	16,300	14,000	16,700	16,000
January 2007	10,505	9,858	12,284	12,307
February 2007	12,805	10,534	15,947	14,108
March 2007	11,729	9,659	13,645	11,430
April 2007	12,250	10,696	14,239	12,135
May 2007	11,981	9,568	15,734	13,270
June 2007	14,000	11,560	17,590	13,945
July 2007	14,535	12,798	17,469	15,536
August 2007	14,593	13,158	16,987	14,640
September 2007	14,429	12,693	15,493	15,881
October 2007	13,503	12,449	17,068	15,678
November 2007	14,046	12,386	15,990	13,949
December 2007	13,718	11,992	17,129	16,056
January 2008	12,551	11,586	15,251	13,246
February 2008	12,346	11,613	13,713	13,146
March 2008	14,361	12,507	16,366	14,392
April 2008	15,004	12,864	17,920	15,825
May 2008	12,628	11,581	14,918	16,396
June 2008	10,796	9,999	14,776	13,428
July 2008	12,713	12,170	15,449	13,488
August 2008	14,150	12,279	18,596	14,832
September 2008	12,566	12,035	15,061	13,458
October 2008	12,821	11,592	14,990	14,772
November 2008	13,472	11,493	16,957	12,498
December 2008	10,640	9,790	15,723	13,647
January 2009	12,449	10,550	14,776	12,025
February 2009	10,289	10,753	12,963	12,402
March 2009	10,122	10,081	13,427	13,855
April 2009	12,230	10,404	13,681	12,172
May 2009	12,265	10,961	13,739	12,382
June 2009	9,131	8,359	12,608	11,137
July 2009	10,901	9,894	14,360	11,840
August 2009	13,517	11,848	16,762	13,678
September 2009	12,765	10,932	14,816	13,164
October 2009	12,919	10,650	14,553	11,980
November 2009	13,138	10,800	16,140	14,209
December 2009	10,870	9,511	13,566	12,107
January 2010	11,708	11,209	13,096	12,373
February 2010	12,951	12,146	15,678	13,933
March 2010	12,395	10,964	15,363	13,693
April 2010	12,400	10,711	15,321	12,813
May 2010	12,083	12,060	16,073	14,232
June 2010	14,004	11,767	16,488	14,224
July 2010	13,013	11,074	16,480	14,377
August 2010	14,131	11,906	15,703	13,508
September 2010	11,426	10,181	15,305	13,261
October 2010	11,765	10,502	13,424	12,815
November 2010	9,901	9,628	12,387	11,585
December 2010	12,314	11,129	15,125	13,531
January 2011	10,075	9,391	13,676	14,765
February 2011	16,253	14,004	19,892	15,947
March 2011	14,094	12,095	17,924	14,206
April 2011	11,164	11,266	14,487	13,802
May 2011	14,266	11,895	19,052	15,903
June 2011	14,004	11,767	16,488	14,224
Minimum:	8,359		11,137	
Maximum:	14,044		16,396	
Meets:	100	98	96	96



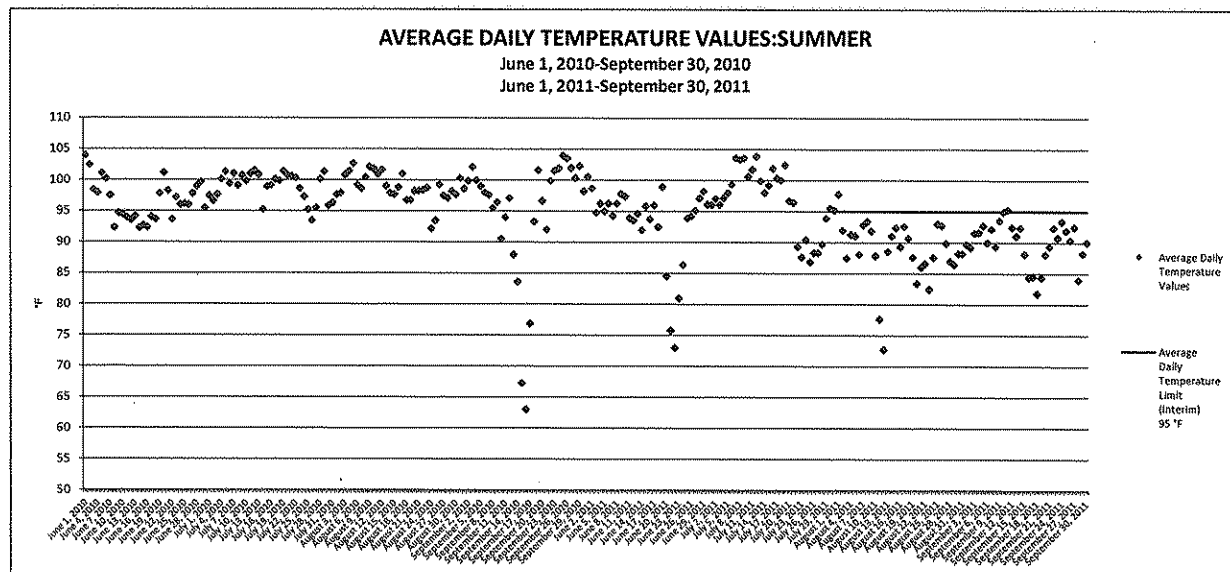
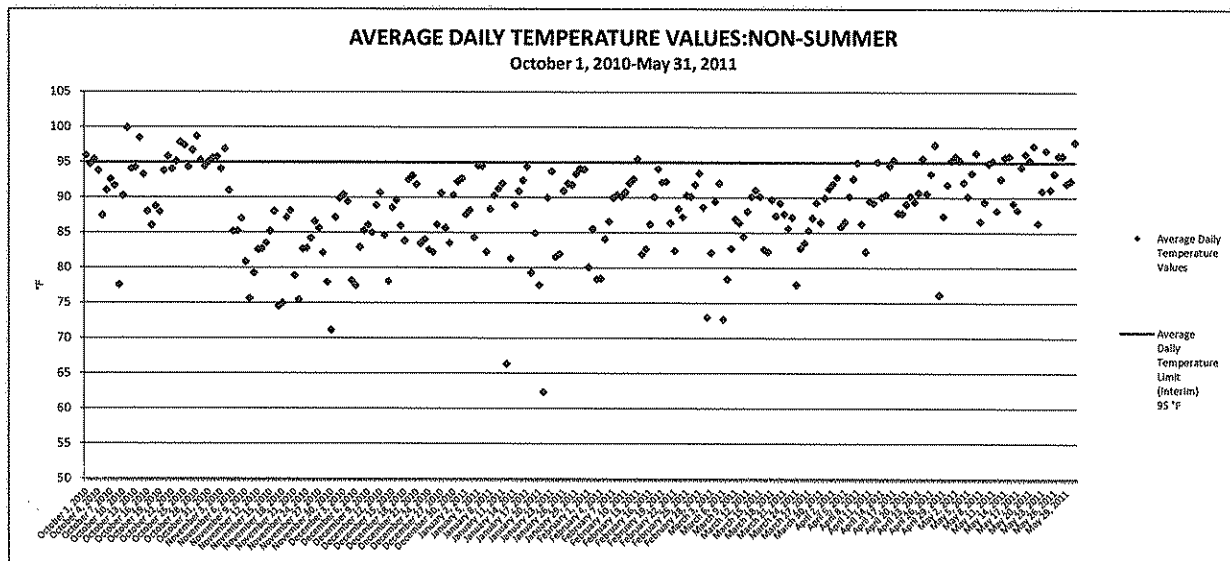
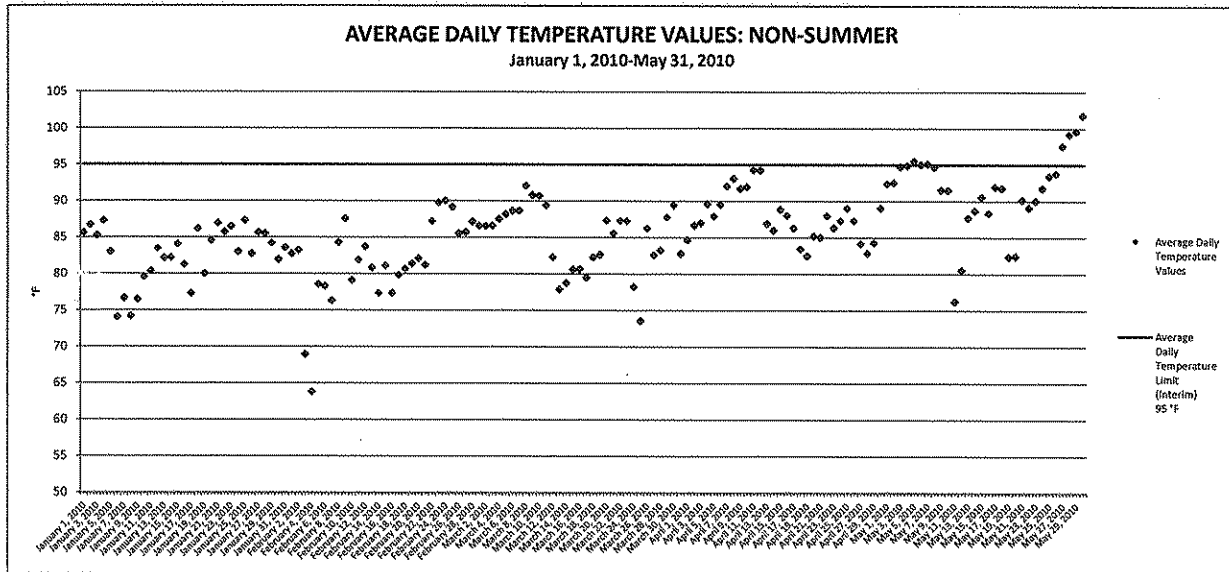
# ATTACHMENT 9

## TSS DATA



	AVERAGE TSS LBS/DAY AT SPOKES MONITORING POINT	AVERAGE TSS LBS/DAY AT TOWN MONITORING POINT	MAXIMUM TSS LBS/DAY AT SPOKES MONITORING POINT	MAXIMUM TSS LBS/DAY AT TOWN MONITORING POINT
<b>LIMITS:</b>	4,350	4,350	9,050	5,750
January 2007	1,315	316	2,551	670
February 2007	1,261	326	1,588	517
March 2007	1,121	332	1,988	596
April 2007	1,200	324	1,512	669
May 2007	1,422	362	2,608	776
June 2007	1,185	237	1,321	434
July 2007	1,083	327	1,660	620
August 2007	1,998	322	6,904	709
September 2007	1,257	335	2,690	686
October 2007	1,105	208	2,081	399
November 2007	1,369	333	2,568	672
December 2007	1,253	376	1,533	759
January 2008	1,267	320	1,772	674
February 2008	917	219	1,251	287
March 2008	903	219	1,550	600
April 2008	1,660	266	3,169	416
May 2008	1,508	204	2,024	506
June 2008	1,408	163	1,810	277
July 2008	1,791	283	2,554	403
August 2008	2,153	255	2,863	513
September 2008	1,732	252	4,799	482
October 2008	2,578	362	4,167	895
November 2008	2,060	239	3,005	797
December 2008	1,872	180	6,726	461
January 2009	1,759	306	3,435	488
February 2009	1,156	280	1,717	580
March 2009	2,634	257	5,562	743
April 2009	2,769	391	4,041	1,116
May 2009	1,810	308	2,507	467
June 2009	2,134	287	6,173	621
July 2009	2,591	432	4,310	1,161
August 2009	2,784	363	5,555	593
September 2009	1,685	326	2,620	834
October 2009	2,212	230	4,267	623
November 2009	1,579	257	3,361	531
December 2009	1,477	293	2,154	677
January 2010	1,571	258	4,767	445
February 2010	1,173	318	1,712	841
March 2010	1,230	269	4,139	705
April 2010	1,745	242	3,577	673
May 2010	2,614	404	5,638	673
June 2010	3,789	335	7,441	596
July 2010	4,114	605	6,896	1,135
August 2010	6,488	569	11,667	1,033
September 2010	2,022	315	3,510	733
October 2010	2,246	345	3,271	568
November 2010	1,770	448	2,683	567
December 2010	2,906	377	4,090	537
January 2011	2,115	323	3,085	844
February 2011	3,508	329	5,969	505
March 2011	2,559	303	4,913	689
April 2011	2,735	1,037	4,974	5,659
May 2011	2,005	240	3,216	574
June 2011	3,789	335	7,441	596
Minimum:	163		277	
Maximum:	1,037		5,659	
Meets:	96	100	98	100

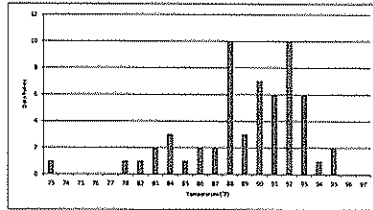
**ATTACHMENT 10**  
**AVERAGE DAILY TEMPERATURE VALUES**



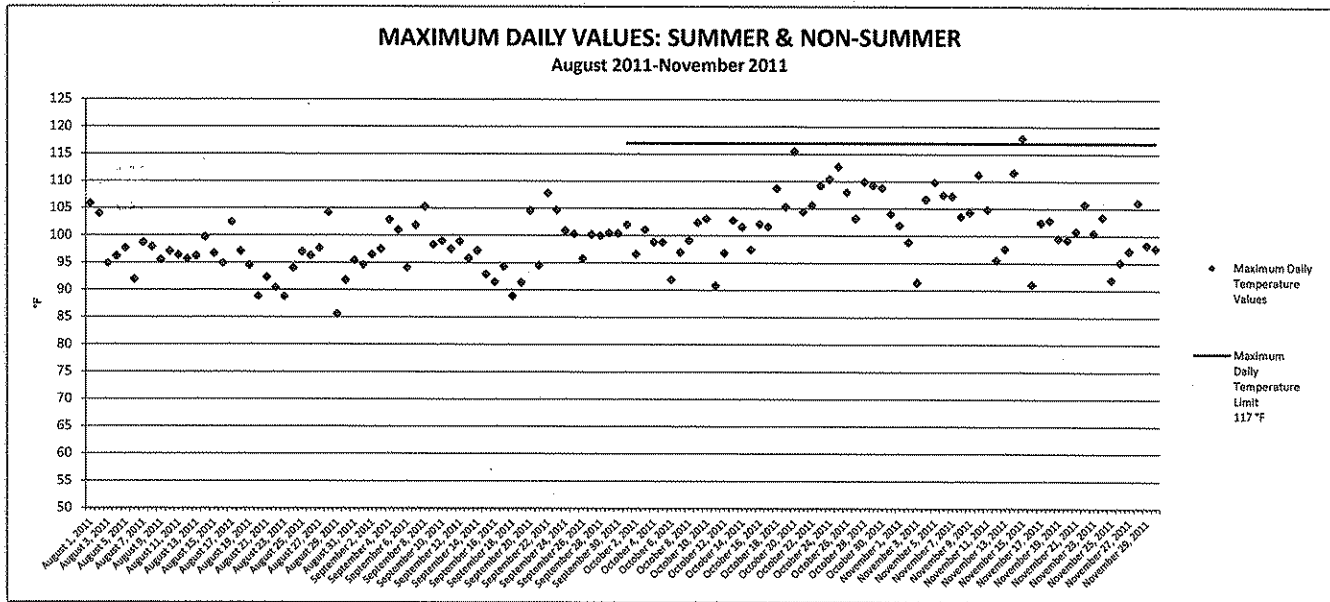
# ATTACHMENT 10

## AVERAGE DAILY TEMPERATURE VALUES

Average Daily Temperature	Average Daily Temperature	Average Daily Temperature	Average Daily Temperature	Average Daily Temperature	Average Daily Temperature
January 1, 2010	65.8	October 1, 2010	96.0	March 1, 2011	66.6
January 2, 2010	66.7	October 2, 2010	94.8	March 2, 2011	73.0
January 3, 2010	65.3	October 3, 2010	95.5	March 3, 2011	82.2
January 4, 2010	67.3	October 4, 2010	93.8	March 4, 2011	89.4
January 5, 2010	63.1	October 5, 2010	87.5	March 5, 2011	92.0
January 6, 2010	74.1	October 6, 2010	91.0	March 6, 2011	72.7
January 7, 2010	76.7	October 7, 2010	92.6	March 7, 2011	78.4
January 8, 2010	74.2	October 8, 2010	91.7	March 8, 2011	82.8
January 9, 2010	76.5	October 9, 2010	77.8	March 9, 2011	86.9
January 10, 2010	78.8	October 10, 2010	90.3	March 10, 2011	86.4
January 11, 2010	80.4	October 11, 2010	98.9	March 11, 2011	84.4
January 12, 2010	83.4	October 12, 2010	94.1	March 12, 2011	80.0
January 13, 2010	82.2	October 13, 2010	94.3	March 13, 2011	90.2
January 14, 2010	82.2	October 14, 2010	98.5	March 14, 2011	91.0
January 15, 2010	84.1	October 15, 2010	93.3	March 15, 2011	90.2
January 16, 2010	81.3	October 16, 2010	88.1	March 16, 2011	82.8
January 17, 2010	77.3	October 17, 2010	96.0	March 17, 2011	82.3
January 18, 2010	86.2	October 18, 2010	88.8	March 18, 2011	89.7
January 19, 2010	80.0	October 19, 2010	88.0	March 19, 2011	87.4
January 20, 2010	84.6	October 20, 2010	93.8	March 20, 2011	89.2
January 21, 2010	87.0	October 21, 2010	95.9	March 21, 2011	87.7
January 22, 2010	85.8	October 22, 2010	94.1	March 22, 2011	85.7
January 23, 2010	86.5	October 23, 2010	95.2	March 23, 2011	87.2
January 24, 2010	85.0	October 24, 2010	97.9	March 24, 2011	77.7
January 25, 2010	87.3	October 25, 2010	97.2	March 25, 2011	82.8
January 26, 2010	82.8	October 26, 2010	94.4	March 26, 2011	83.5
January 27, 2010	85.7	October 27, 2010	96.7	March 27, 2011	85.4
January 28, 2010	85.5	October 28, 2010	96.7	March 28, 2011	87.1
January 29, 2010	84.2	October 29, 2010	96.3	March 29, 2011	86.0
January 30, 2010	82.0	October 30, 2010	94.5	March 30, 2011	86.5
January 31, 2010	83.6	October 31, 2010	95.1	March 31, 2011	90.0
February 1, 2010	83.6	November 1, 2010	95.7	April 1, 2011	91.3
February 2, 2010	83.2	November 2, 2010	96.6	April 2, 2011	92.3
February 3, 2010	69.0	November 3, 2010	94.1	April 3, 2011	92.9
February 4, 2010	63.9	November 4, 2010	96.9	April 4, 2011	88.9
February 5, 2010	78.6	November 5, 2010	91.0	April 5, 2011	86.8
February 6, 2010	78.3	November 6, 2010	85.2	April 6, 2011	90.2
February 7, 2010	78.3	November 7, 2010	85.2	April 7, 2011	92.7
February 8, 2010	84.3	November 8, 2010	87.1	April 8, 2011	95.0
February 9, 2010	87.6	November 9, 2010	80.9	April 9, 2011	86.3
February 10, 2010	79.1	November 10, 2010	75.7	April 10, 2011	82.3
February 11, 2010	83.7	November 11, 2010	79.3	April 11, 2011	89.5
February 12, 2010	83.7	November 12, 2010	82.6	April 12, 2011	89.3
February 13, 2010	80.8	November 13, 2010	82.7	April 13, 2011	95.1
February 14, 2010	77.4	November 14, 2010	83.6	April 14, 2011	90.1
February 15, 2010	81.1	November 15, 2010	85.2	April 15, 2011	90.4
February 16, 2010	77.4	November 16, 2010	88.1	April 16, 2011	94.5
February 17, 2010	78.8	November 17, 2010	74.6	April 17, 2011	96.4
February 18, 2010	80.7	November 18, 2010	75.0	April 18, 2011	87.8
February 19, 2010	81.4	November 19, 2010	87.8	April 19, 2011	90.2
February 20, 2010	82.1	November 20, 2010	88.2	April 20, 2011	89.1
February 21, 2010	81.3	November 21, 2010	76.9	April 21, 2011	90.2
February 22, 2010	75.2	November 22, 2010	75.4	April 22, 2011	88.4
February 23, 2010	89.8	November 23, 2010	82.7	April 23, 2011	90.7
February 24, 2010	90.1	November 24, 2010	82.8	April 24, 2011	95.5
February 25, 2010	89.2	November 25, 2010	84.2	April 25, 2011	90.6
February 26, 2010	85.8	November 26, 2010	86.6	April 26, 2011	93.4
February 27, 2010	85.8	November 27, 2010	86.6	April 27, 2011	95.0
February 28, 2010	87.2	November 28, 2010	82.2	April 28, 2011	78.2
March 1, 2010	85.6	November 29, 2010	77.8	April 29, 2011	87.4
March 2, 2010	86.6	November 30, 2010	71.1	April 30, 2011	91.8
March 3, 2010	88.8	December 1, 2010	87.2	May 1, 2011	87.2
March 4, 2010	88.2	December 2, 2010	89.9	May 2, 2011	86.9
March 5, 2010	88.2	December 3, 2010	90.4	May 3, 2011	95.3
March 6, 2010	88.7	December 4, 2010	89.5	May 4, 2011	92.2
March 7, 2010	92.1	December 5, 2010	78.2	May 5, 2011	90.2
March 8, 2010	92.1	December 6, 2010	77.5	May 6, 2011	93.5
March 9, 2010	90.9	December 7, 2010	83.0	May 7, 2011	96.4
March 10, 2010	90.7	December 8, 2010	85.3	May 8, 2011	88.7
March 11, 2010	88.4	December 9, 2010	85.1	May 9, 2011	89.4
March 12, 2010	82.2	December 10, 2010	85.0	May 10, 2011	94.9
March 13, 2010	77.8	December 11, 2010	88.9	May 11, 2011	95.2
March 14, 2010	78.9	December 12, 2010	90.7	May 12, 2011	88.2
March 15, 2010	80.6	December 13, 2010	84.9	May 13, 2011	92.7
March 16, 2010	80.7	December 14, 2010	78.1	May 14, 2011	96.7
March 17, 2010	79.5	December 15, 2010	86.6	May 15, 2011	95.9
March 18, 2010	82.6	December 16, 2010	89.6	May 16, 2011	89.2
March 19, 2010	82.8	December 17, 2010	86.0	May 17, 2011	88.3
March 20, 2010	87.4	December 18, 2010	83.9	May 18, 2011	94.3
March 21, 2010	85.6	December 19, 2010	92.8	May 19, 2011	96.2
March 22, 2010	87.3	December 20, 2010	93.1	May 20, 2011	95.3
March 23, 2010	87.3	December 21, 2010	91.9	May 21, 2011	87.4
March 24, 2010	78.2	December 22, 2010	83.5	May 22, 2011	90.4
March 25, 2010	73.6	December 23, 2010	84.1	May 23, 2011	91.0
March 26, 2010	86.3	December 24, 2010	82.6	May 24, 2011	98.7
March 27, 2010	82.6	December 25, 2010	82.3	May 25, 2011	91.2
March 28, 2010	83.3	December 26, 2010	86.2	May 26, 2011	93.4
March 29, 2010	87.8	December 27, 2010	90.6	May 27, 2011	96.0
March 30, 2010	88.4	December 28, 2010	85.7	May 28, 2011	96.0
March 31, 2010	82.8	December 29, 2010	83.5	May 29, 2011	92.1
April 1, 2010	84.7	December 30, 2010	92.4	May 30, 2011	92.4
April 2, 2010	86.7	December 31, 2010	90.3	May 31, 2011	97.8
April 3, 2010	87.0	January 1, 2011	92.7		
April 4, 2010	89.6	January 2, 2011	87.6		
April 5, 2010	87.9	January 3, 2011	88.2		
April 6, 2010	89.5	January 4, 2011	84.3		
April 7, 2010	92.1	January 5, 2011	94.5		
April 8, 2010	93.0	January 6, 2011	94.5		
April 9, 2010	91.7	January 7, 2011	82.3		
April 10, 2010	92.0	January 8, 2011	88.4		
April 11, 2010	94.3	January 9, 2011	90.3		
April 12, 2010	94.3	January 10, 2011	91.3		
April 13, 2010	87.0	January 11, 2011	92.0		
April 14, 2010	86.0	January 12, 2011	86.3		
April 15, 2010	88.9	January 13, 2011	81.3		
April 16, 2010	88.1	January 14, 2011	88.8		
April 17, 2010	88.3	January 15, 2011	90.9		
April 18, 2010	83.5	January 16, 2011	92.4		
April 19, 2010	82.5	January 17, 2011	94.4		
April 20, 2010	85.2	January 18, 2011	79.3		
April 21, 2010	85.0	January 19, 2011	84.9		
April 22, 2010	88.0	January 20, 2011	77.6		
April 23, 2010	86.4	January 21, 2011	82.3		
April 24, 2010	87.3	January 22, 2011	90.0		
April 25, 2010	83.0	January 23, 2011	93.7		
April 26, 2010	87.3	January 24, 2011	91.5		
April 27, 2010	84.2	January 25, 2011	82.0		
April 28, 2010	82.9	January 26, 2011	91.0		
April 29, 2010	94.3	January 27, 2011	92.0		
April 30, 2010	90.1	January 28, 2011	91.8		
May 1, 2010	92.6	January 29, 2011	93.4		
May 2, 2010	94.7	January 30, 2011	94.1		
May 3, 2010	94.9	January 31, 2011	94.0		
May 4, 2010	95.5	February 1, 2011	80.1		
May 5, 2010	95.1	February 2, 2011	85.6		
May 6, 2010	95.1	February 3, 2011	78.4		
May 7, 2010	94.7	February 4, 2011	78.5		
May 8, 2010	94.7	February 5, 2011	84.1		
May 9, 2010	91.6	February 6, 2011	86.6		
May 10, 2010	91.5	February 7, 2011	90.0		
May 11, 2010	76.3	February 8, 2011	90.4		
May 12, 2010	80.6	February 9, 2011	90.2		
May 13, 2010	87.7	February 10, 2011	90.8		
May 14, 2010	88.7	February 11, 2011	92.0		
May 15, 2010	90.6	February 12, 2011	92.7		
May 16, 2010	88.4	February 13, 2011	95.5		
May 17, 2010	92.0	February 14, 2011	81.9		
May 18, 2010	91.8	February 15, 2011	82.7		
May 19, 2010	82.4	February 16, 2011	86.2		
May 20, 2010	82.5	February 17, 2011	90.1		
May 21, 2010	90.2	February 18, 2011	94.1		
May 22, 2010	89.1	February 19, 2011	92.2		
May 23, 2010	90.1	February 20, 2011	92.3		
May 24, 2010	91.8	February 21, 2011	86.4		
May 25, 2010	93.5	February 22, 2011	82.4		
May 26, 2010	93.0	February 23, 2011	86.4		
May 27, 2010	97.8	February 24, 2011	87.3		
May 28, 2010	98.2	February 25, 2011	90.3		
May 29, 2010	96.6	February 26, 2011	90.2		
May 30, 2010	101.8	February 27, 2011	91.8		
		February 28, 2011	92.5		

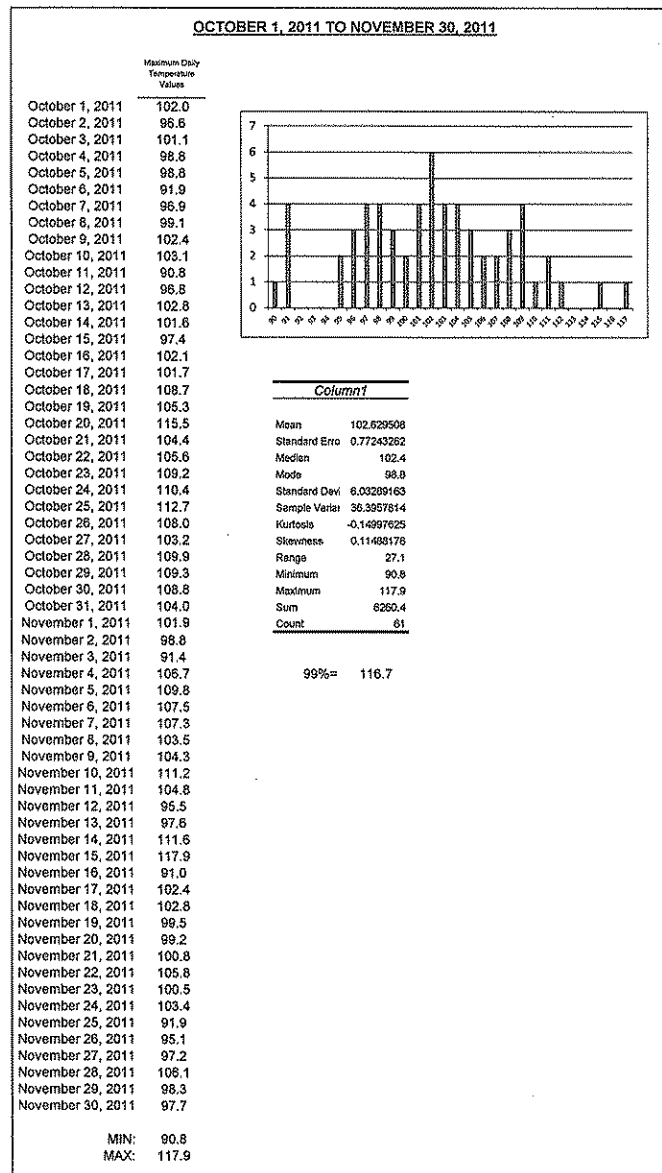
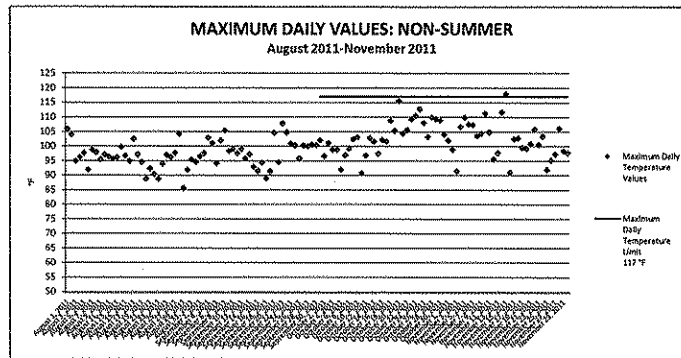


**ATTACHMENT 11**  
**MAXIMUM DAILY TEMPERATURE VALUES**



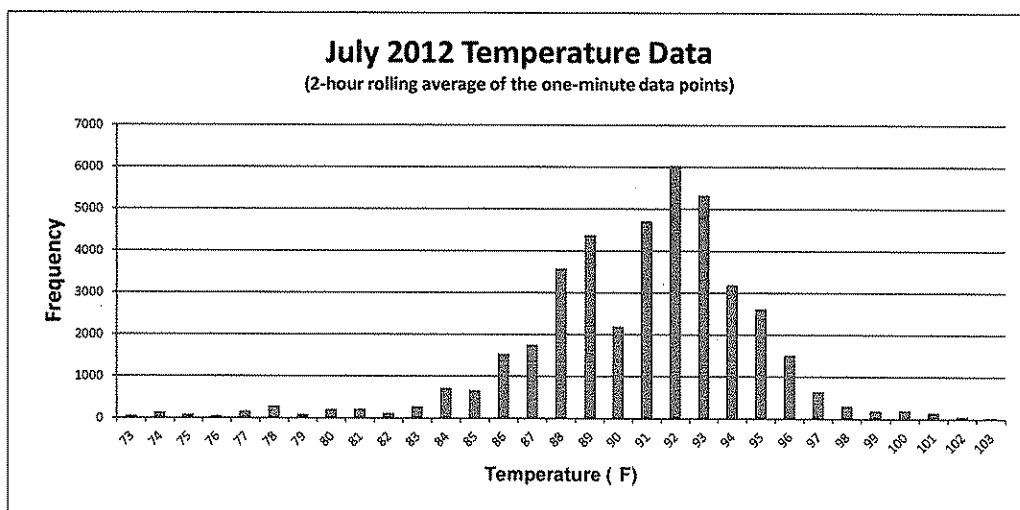
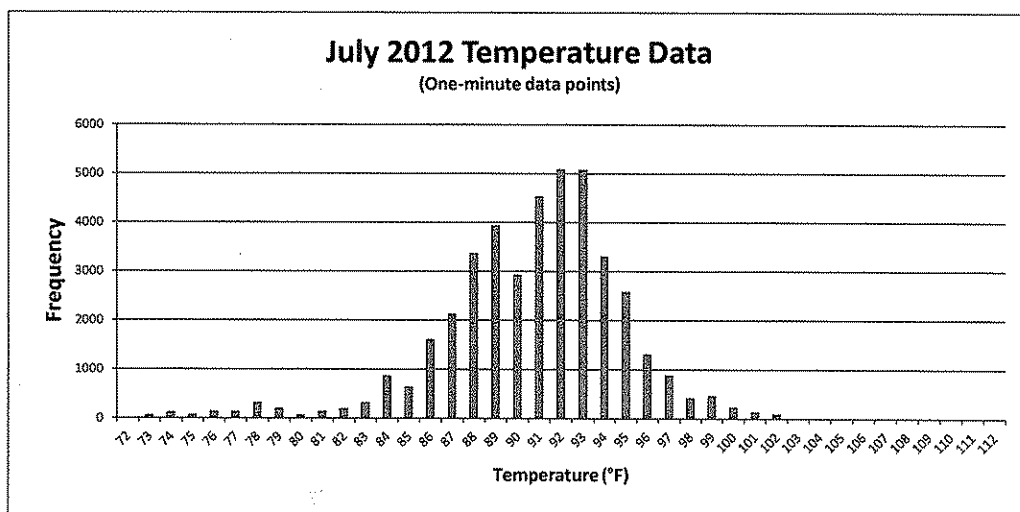
# ATTACHMENT 11

## MAXIMUM DAILY TEMPERATURE VALUES (NON-SUMMER)



# ATTACHMENT 12

## MAXIMUM DAILY TEMPERATURE VALUES (SUMMER)



Count=	41446
Range=	73 °F to 103 °F
Standard Deviation =	3.97
Mean=	92
Z-score <sub>99.87</sub>	3.00
Maximum limit for 2-hour rolling average=	105 °F
[Limit = Mean+(Z-score*Standard Deviation)]	