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AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WASTEWATER MANAGEMENT DIVISION
103 SOUTH MAIN STREET
WATERBURY, VERMONT 05671-0405

FACT SHEET
(September 2003)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO
DISCHARGE TO WATERS OF THE UNITED STATES

NPDES NO: VT0000469 ✓
FILE NO: 06-15
PERMIT NO: 3-1118
PROJECT ID NO: EJ96-0028

NAME AND ADDRESS OF APPLICANT:

Rock-Tenn Company
PO Box 98 Mill Street
Sheldon Springs, VT 05485

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

1 Mill Street
Sheldon Springs, VT 05485

RECEIVING WATER: Missisquoi River

CLASSIFICATION: Class B

I. Proposed Action, Type of Facility, and Discharge Location

The above named applicant applied on March 31, 2003 to the Vermont Department of Environmental Conservation for renewal of the permit to discharge into the designated receiving water. At this time the Department has made a tentative decision to issue a renewal of the previously issued discharge permit. The facility is engaged in the production of recycled boxboard using corrugated and non-corrugated medium furnishes. The discharges are treated process wastewater combined from paper process wastes and miscellaneous cooling waters (S/N 003) and non-contact cooling water from the emergency diesel generator (S/N 005). (The previous permit included S/N 002, non-contact cooling water. The applicant has requested that this discharge point no longer be included in the permit because the discharge is exclusively recycled back to the clear water supply reservoir.) The discharge is to the Missisquoi River.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters is based on state and federal laws and regulations, the discharge permit application, and the recent self-monitoring data.

III. Limitations and Conditions

The effluent limitations of the permit, the monitoring requirements, and any implementation schedule (if required), may be found on the following pages of the permit:

Effluent Limitations: Pages 2 and 3 of 10
Monitoring Requirements: Pages 2, 3 and 4 of 10

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Since March 1991 Rock-Tenn Company has owned and operated the Missisquoi Mill, a paperboard manufacturing mill, located in Sheldon Springs. During 2001 and 2002 the facility produced 277 and 278 tons per day respectively using furnish predominately classified as corrugated (approximately 10%) and non-corrugated. Due to improvements to the facility (the installation of a suction drum press on #1 paper machine in 2002 and a dryer section ventilation project which is currently underway on the #2 paper machine) as well as increasing efficiency, the Company anticipates a production level of 288 tpd in 2003.

The wastewater treatment system includes a 120 foot diameter primary clarifier and a 20 million gallon aerated lagoon which has an area dedicated to settling. In July 2001 a dissolved air flotation clarifier was installed to allow the facility to meet the permitted phosphorus effluent concentration limit of 0.8 mg/l. Over the past several years the facility has, by a variety of measures, attempted to minimize raw waste loadings to the waste treatment facility as well as fresh water usage.

S/N 003: Treated Process Wastewater

Flow - The effluent flow limitation has been changed to 2.5 mgd, monthly average. The permittee requested this change from the previous 3.5 mgd limit which, according to the permit application, was well above the facility's future needs. The facility maintains a continuous discharge.

Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS) - Guidance for the establishment of BOD and TSS limits for the pulp, paper and paperboard manufacturing processes is provided in 40 CFR Part 430. The facility produces boxboard from corrugated and non-corrugated wastepaper and is subject to the requirements under Subpart J - Secondary Fiber Non-Deink (prior to EPA's revising the subcategorization scheme the facility was permitted under Subpart E - Paperboard From Wastepaper Subcategory).

During the past permit period production has increased from from 262 tpd in 1999 to 278 tpd in 2002. The target production for the year 2003 is 288 tpd which will be used for the purpose of

establishing effluent limits in this permit. The ratio of corrugated to non-corrugated furnish is about 10% to 90%.

Calculated categorical effluent limits for the non-corrugating medium furnish subdivision:

	<u>monthly average</u>	<u>daily maximum</u>
BOD	864 lbs/day	1728 lbs/day
TSS	1440 lbs/day	2880 lbs/day

Calculated categorical effluent limits for the corrugating medium furnish subdivision:

	<u>monthly average</u>	<u>daily maximum</u>
BOD	1613 lbs/day	3283 lbs/day
TSS	2650 lbs/day	5299 lbs/day

Thus, using an annual production of 288 tpd, a ratio of 10% to 90% corrugated to non-corrugated furnish and the criteria from Subpart J, calculated categorical effluent limits are:

	<u>monthly average</u>	<u>daily maximum</u>
BOD	939 lbs/day	1883 lbs/day
TSS	1561 lbs/day	3122 lbs/day

The Anti-Backsliding provision requires that when a facility is substantially in compliance with current limits, less stringent limits may not be applied to a discharge. Based on monitoring data the facility has remained consistently in compliance (since adding the DAF unit two years ago) with the current BOD (739 lbs/day, monthly average and 1300 (summer) or 1487 (winter) lbs/day, maximum) and TSS (1226 lbs/day, monthly average and 2453 lbs/day, maximum) permit limits. Consequently the limits will remain as previously permitted. The monitoring frequency remains unchanged from the previous permit.

Total Phosphorus - Under §1266a, Discharges of Phosphorus, monthly average a phosphorus concentration of 0.8 mg/l into the Lake Champlain basin must be met. During the previous permit period a DAF clarifier was installed so that the facility could consistently meet this limit. In November 2002 EPA approved the Agency's "Lake Champlain Phosphorus TMDL", which established a phosphorus allocation for Rock Tenn utilizing an effluent concentration of 0.6 mg/l (at a reduced flow rate because the previously permitted flow of 3.5 mgd greatly exceeded the current and anticipated future water needs at the facility). That allocation (1.260 metric tons per year or 2777 pounds per year) is being incorporated into this permit. The draft permit also contains a provision for monthly phosphorus monitoring which is unchanged from the previous permit.

The annual total pounds is the total of the twelve monthly totals which are calculated by multiplying the total monthly flow times the monthly average phosphorus concentration times 8.34. The annual total must be submitted with the December monthly monitoring report.

pH - The pH limitation remains at 6.5 - 8.5 Standard Units as specified in Section 3-01 B.9. in the Vermont Water Quality Standards, effective July 2, 2000. Monitoring remains at daily.

Turbidity - The instream water quality standard for turbidity is 25 NTU as specified in Section 3-04 B.1. of the Vermont Water Quality Standards, effective July 2, 2000. The proposed permit establishes a 200 foot mixing zone because the paper manufacturing process often generates a treated effluent exceeding the instream water quality standard despite BPT/BCT treatment.

The Department has made the determination that: "conditions due to discharges of waste within any mixing zone shall:

- a. not result in a significant increase in public health risk when evaluated using reasonable assumptions about exposure pathways;
- b. not constitute a barrier to the passage or movement of fish or prevent the full support of aquatic biota, wildlife, and aquatic habitat uses in the receiving waters outside the mixing zone;
- c. not kill organisms passing through;
- d. protect and maintain the existing uses of the waters;
- e. be free from materials in concentrations that settle to form objectionable deposits;
- f. be free from floating debris, oil, scum, and other material in concentrations that form nuisances;
- g. be free from substances in concentrations that produce objectionable color, odor, taste, or turbidity; and
- h. be free from substances in concentrations that produce undesirable aquatic life or result in a dominance of nuisance species." (Water Quality Standards, Section 2-04 A.2.)

The hydroelectric facility, located just upstream from Rock-Tenn, releases a minimum of 200 cfs (129 mgd) of river water at the lower turbine outfall which mixes immediately with the Rock-Tenn S/N 003 discharge. Therefore a conservative limit (given the site specific conditions of the outfall) of 100 NTU (which assumes a 4:1 dilution) at the point of discharge has been established in the permit and will not violate water quality standards at the end of the mixing zone. Weekly monitoring is proposed.

Whole Effluent Toxicity (WET) and Priority Pollutant Testing - 40 CFR Part 122.44(d)(1) requires the Department to assess whether the discharge causes, has the reasonable potential to cause, or contribute to an excursion above any narrative or numeric water quality criteria. Whole Effluent Toxicity testing is being required in accordance with the 1994 Vermont Toxic Discharge Control Strategy. The intent of the WET testing is to confirm the results of the WET testing conducted in 1999. Those results indicated that this discharge did not have an instream toxic impact. Confirmation that those findings are still valid is required by the Vermont Toxic Discharge Control Strategy at permit renewal. If the results of these tests indicate a reasonable potential to cause an instream toxic impact, the Department may require additional WET testing, establish a WET limit, or require a Toxicity Reduction Evaluation.

Because several new or substituted chemicals have been added since the previous permit was issued, the proposed permit includes one two-species acute/chronic WET test to be completed as soon as the permit takes effect (in October 2003) and again in summer 2006. In addition, one priority pollutant scan is required to be submitted to the Department by December 31,

2003. Priority pollutants include the volatile organics, acid and base neutral compounds, and pesticides listed in Table II and the metals included in Table III of 40 CFR Part 122, Appendix D. In addition, any of the pollutants listed in Table IV that are expected to be present in the discharge must be sampled as part of the priority pollutant scan requirement.

S/N 005: Non-contact cooling water from the emergency diesel generator

In the previous permit this discharge, when it infrequently occurred, mingled with the S/N 002 non-contact cooling water discharge. The discharge typically occurs for a total of a few hours each year, mainly to insure that the generator is functioning. For example, in 2001 and 2002 the discharge occurred for a total of 1.0 and 6.8 hours respectively.

The proposed permit continues to authorize this discharge. Monitoring for **Flow and Temperature** is required. The flow is limited to 2.5 mgd, daily maximum, *combined with S/N 003*. The temperature limit remains at 96° F as in the previous permit and must be measured during each discharge. Also, as required in the previous permit, this flow is only authorized with a minimum flow of 200 cfs in the mill tailrace.

V. Procedures for Formulation of Final Determinations

The public comment period for receiving comments on this draft permit is from August 25 through September 24, 2003 during which time interested persons may submit their written views on the draft permit. All written comments received by 4:30 pm on September 24, 2003 will be retained by the Department and considered in the formulation of the final determination to issue, deny or modify the draft permit. The period of comment may be extended at the discretion of the Department.

Written comments should be sent to:

Vermont Agency of Natural Resources
Department of Environmental Conservation
Wastewater Management Division - Sewing Building
103 South Main Street
Waterbury, VT 05671-0405

Comments may also be faxed to: 802-241-2596.

Any interested person or groups of persons may request or petition for a public hearing with respect to this draft permit. Any such request or petition for a public hearing shall be filed within the public comment period described above and shall indicate the interest of the party filing such request and the reasons why a hearing is warranted.

The Department will hold a hearing if there is significant public interest in holding such a hearing. Any public hearing brought in response to such a request or petition will be held in the geographical area of the proposed discharge or other appropriate area, at the discretion of the Department and may, as appropriate, consider related groups of draft permits. Any person may submit oral or written statements and data concerning the draft permit at the public hearing.

The Department may establish reasonable limits on the time allowed for oral statements and may require the submission of statements in writing. All statements, comments, and data presented at the public hearing will be retained by the Department and considered in the formulation of the final determination to issue, deny, or modify the draft permit.

The complete application, draft permit, and other information are on file and may be inspected at the VTDEC, Wastewater Management Division, Waterbury Office. Copies will be made at a cost based on the current Secretary of State Official Fee Schedule for Copying Public Records from 8:00 am to 4:00 pm, Monday through Friday.

One letter of comments from Conservation Law Foundation was received during the public comment period and those comments were addressed in a response summary.



ROCK-TENN COMPANY

MISSISSQUIOI MILL

Application for Industrial Discharge Permit Outfall Location Attachment 1A

MAR 31 2003

HORIZONTAL SCALE IN FEET

500 400 300 200 100 0

500

1000

S/N 005

S/N 003

