



Province of
British Columbia

MINISTRY OF
ENVIRONMENT,
LANDS AND PARKS

Cariboo Region
Environmental Protection
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REGISTERED MAIL

Date: JUN 14 1995

File:PE 13412

Quesnel River Pulp Company
P.O. Box 9500
Quesnel, B.C.
V2J 5C3

Attention: Brian MacLean

Enclosed is Permit PE 13412 issued under the provisions of the Waste Management Act. Your attention is respectfully directed to the conditions outlined in the permit. An annual permit fee will be determined according to the Waste Management Permit Fees Regulation.

This permit is issued pursuant to the provisions of the Waste Management Act to ensure compliance with section 34(3) of that statute, which makes it an offence to discharge waste without proper authorization. It is also the responsibility of the permittee to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and comply with other applicable legislation that may be in force.

This decision may be appealed by any aggrieved party in accordance with Part 5 of the Waste Management Act.

The administration of this permit will be carried out by staff from our Regional Office located in Williams Lake, B.C., (telephone 398-4533). Plans, data and reports pertinent to the permit are to be submitted to the Regional Environmental Protection Manager, at Suite 400 - 640 Borland Street, Williams Lake, British Columbia, V2G 4T1.

Yours truly,

Doug McIntosh
Assistant Regional Waste Manager
Cariboo Region

enclosure



MINISTRY OF ENVIRONMENT,
LANDS AND PARKS

PERMIT
PE 13412

Under the Provisions of the Waste Management Act

West Fraser Mills Ltd.
and
Daishowa Canada Co. Ltd.
operating under the firm name and style of
Quesnel River Pulp Company

are authorized to discharge sludge to the ground from a Bleached Chemi-thermomechanical Pulp Mill located in Quesnel, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the Waste Management Act and may result in prosecution.

A handwritten signature in cursive script, reading "Doug McIntosh".

Doug McIntosh
Assistant Regional Waste Manager

1. AUTHORIZED DISCHARGES

1.1 The discharge of sludge to which this subsection is applicable is to agricultural land, as a soil amendment. The site reference number for this discharge is E221847.

1.1.1 The maximum rate at which sludge may be discharged is 320 m³/day. The average rate of discharge is 90 m³/day.

1.1.2 The maximum volume of sludge applied shall be 750 m³/hectare/application.

1.1.3 The characteristics of the discharge shall be:

Typical BCTMP/TMP sludge from a primary clarifier (maximum 75% fibre residue, remainder secondary biosolids), and sludge from a secondary clarifier (maximum 100% secondary biosolids).

Concentration of metals not to exceed: Arsenic, 10; Cadmium, 5; Cobalt, 5; Mercury, 1; Molybdenum, 5; Nickel, 5; Lead, 15; Selenium, 14; and Zinc, 500 (all units in mg/kg).

1.1.4 The works authorized are a sludge storage pile and a soil amendment operation, approximately located as shown on the attached Site Plan A.

1.1.5 The location of the facilities from which the discharge originates is District Lot 5013, Cariboo Land District.

1.1.6 The location of the point of discharge is a portion of District Lot 221, Cariboo Land District.

2. GENERAL REQUIREMENTS

2.1 Buffer Zones

No sludge shall be deposited or stored within 30 metres of any water course or property boundary, or within 45 metres of any groundwater well.

2.2 Application and Rate Restrictions

Application shall only occur when the ground is free of frost. Should concerns arise regarding the rate, or volume, at which sludge is applied, the Regional Waste Manager may require that the rate be reduced.

2.3 Re-application of Sludge

The Regional Waste Manager may prohibit, or restrict the frequency of, any re-application of sludge if, in his opinion, soil quality is being degraded.

2.4 Odour Control

The permittee shall take measures to minimize objectionable odours from the sludge stockpile.

2.5 Process Modifications

The Permittee shall notify the Regional Waste Manager prior to implementing changes to any process that may affect the quality and/or quantity of the discharge.

2.6 Site Preparation and Restoration

Provision of surface water diversionary works and site restoration, as required, shall be carried out to the satisfaction of the Regional Waste Manager.

3. MONITORING AND REPORTING REQUIREMENTS

3.1 Discharge Monitoring

The permittee shall collect 3 samples of the sludge, one during each of: BCTMP; TMP; and Aspen pulp production runs, and analyze it for the following parameters: TKN; P; Na; As; Cd; Co; Hg; Mo; Ni; Pb; Se; Zn. The sludge samples collected shall be representative of the specified pulp production runs.

The permittee shall repeat the above sampling in the event of any process change that may result in a change to the characteristics of the sludge.

The permittee shall sample the sludge prior to each application, for Total Kjeldahl Nitrogen (TKN), Phosphorous (P) and Sodium Absorbtion Ratio (SAR).

Each sample of sludge shall be a composite comprised of 3 subsamples, representative of the sludge stockpile.

3.2 Receiving Environment Monitoring

The permittee shall collect and analyze soil samples, annually, for: Conductivity; Sodium Absorbtion Ratio (SAR); TKN; Ortho-P; Sulphate; and Total Organic Carbon. Samples shall be collected from the area of sludge application, 2 samples/10 hectares, and 1 sample from a control site. Each sample shall comprise a composite of 3 subsamples, representative of the plough zone (0-30 cm depth).

The groundwater well located at the farmhouse on the subject property shall be sampled annually for nitrates, sodium and hardness.

3.3 Analyses

Analyses for groundwater samples are to be carried out in accordance with procedures described in the "British Columbia Environmental Laboratory Manual for the Analysis of Water, Wastewater, Sediment and Biological Materials, (March 1994 Permittee Edition)" or by suitable alternative procedures as authorized by the Regional Waste Manager.

Copies of the above manual are available from the Queen's Printer Publication Centre, 2nd Floor, 563 Superior Street, Victoria, B.C., V8V 4R6, at a total cost of \$101.65, \$80.00 for the electronic manual and license and \$21.65 for a hard copy of the manual, and are also available for inspection at all Environmental Protection Program Offices.

Analyses for soil and sludge samples are to be carried out in accordance with procedures described in the third edition of "A Laboratory Manual for the Chemical Analysis of Ambient Air, Emissions, Precipitation, Soil and Vegetation (April, 1983, 253 pp.)" or by suitable alternative procedures as authorized by the Regional Waste Manager.

Copies of the above manual are available from the Queen's Printer Publication Centre, 2nd Floor, 563 Superior Street, Victoria, B.C., V8V 4R6, at a total cost of \$101.65, \$80.00 for the electronic manual and license and \$21.65 for a hard copy of the manual, and are also available for inspection at all Environmental Protection Program Offices.

3.4 Quality Assurance Program

The permittee shall submit an outline of the standard procedures for field sampling to the Regional Waste Manager for approval prior to the start of sampling. The permittee shall also provide the analytical detection limits for all required parameters.

The permittee shall obtain the precision, accuracy and bottle cleaning blank data for each sample set. The permittee shall also obtain from the laboratory, an evaluation of data acceptability based on these criteria.

One duplicate set of soil samples shall be taken and analyzed for the parameters specified in Subsection 3.2.

All samples shall be analyzed by a laboratory registered under the provisions of the Environmental Data Quality Assurance Regulation.

3.5 Reporting

The permittee shall maintain records of the results required by Subsections 3.1 and 3.2, and submit them annually. The report is due within 31 days of the end of the year in which the information was gathered, and shall include, but not be limited to, an assessment of the effectiveness of the program, regarding the decomposition of the sludge and the impact on crop production.

