

July 15, 2011

Tracking Number: 164014  
Authorization Number: 13845

**REGISTERED MAIL**

Howe Sound Pulp & Paper Corporation  
225-209 Carrall ST  
Vancouver, BC V6B 2J2

Dear Permittee:

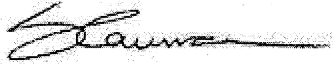
Enclosed is Amended Permit 13845 issued under the provisions of the *Environmental Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the permit. An annual fee will be determined according to the Permit Fees Regulation.

This permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the permittee. This permit is issued pursuant to the provisions of the *Environmental Management Act* to ensure compliance with Section 120(3) of that statute, which makes it an offence to discharge waste, from a prescribed industry or activity, 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 to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given. For further information, please contact the Environmental Appeal Board at 250-387-3464.

Administration of this permit will be carried out by staff from the South Coast Region. Plans, data and reports pertinent to the permit are to be submitted to the Regional Manager, Environmental Protection, at Ministry of Environment, Regional Operations, South Coast Region, 2nd Floor, 10470 - 152 Street, Surrey, BC V3R 0Y3.

Yours truly,



Cassandra Caunce  
for Director, *Environmental Management Act*  
South Coast Region

Enclosure

cc: Environment Canada

Siew Sim, Howe Sound Pulp & Paper Corporation,  
3838 Port Mellon Highway, Port Mellon BC V0N 2S0



MINISTRY OF  
ENVIRONMENT

PERMIT

13845

*Under the Provisions of the Environmental Management Act*

**Howe Sound Pulp & Paper Corporation**

**225-209 Carrall ST  
Vancouver, BC V6B 2J2**

is authorized to discharge refuse to the land from a pulp and paper mill located at Port Mellon, British Columbia, subject to the terms and conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may lead to prosecution.

This permit supersedes and amends all previous versions of Permit 13845 issued under Part 2, Section 14 of the *Environmental Management Act*.

**1. AUTHORIZED DISCHARGES**

1.1 This section applies to the discharge of refuse from **A PULP AND PAPER MILL**. The site reference number for this discharge is E223050.

1.1.1 The maximum rate of discharge is 91 250 cubic metres per year (uncompacted volume).

1.1.2 The authorized discharge period is continuous.

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- 1.1.3 The components of the refuse which may be discharged are approximately:

Wood residue boiler fly ash	20% by volume
Sludges	20% by volume
Wood residue boiler grate ash	20% by volume
Wood residue boiler reject sand	10% by volume
Waste lime mud and green liquor dregs	18% by volume
Waste brown fibre	10% by volume
Miscellaneous mill waste	2% by volume

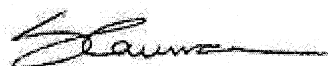
- 1.1.4 The authorized works are a landfill operation in a seventeen (17) hectare site that must be developed in three (3) phases, each of which consists of one (1) cell, not exceeding six (6) hectares. Only one (1) active cell must be in operation at any time to receive refuse deposit. The cell must be bermed, lined with a composite liner comprising a 1.5 mm thick high density polyethylene liner and a nominal 500 mm thick layer of a soil-bentonite mix or equivalent, leachate collection system, leak detection and collection system, leachate conveyance system, leachate treatment system, surface water diversion works, and related appurtenances approximately located as shown on Site Plan A. Plans and specifications of the authorized works are as described in AGRA Earth & Environmental Limited report number VE50448.400, dated August 1995, titled "Proposed Landfill Site Port Mellon, B.C. Geotechnical and Hydrogeological Feasibility Study Report" and report number VE50448, dated September 12, 1996, titled "Port Mellon Proposed Landfill System, Final Report", or alternatives which give equivalent or better environmental protection.

- 1.1.5 The permittee must install and complete the authorized pollution prevention and abatement works prior to commencement of discharge in each phase of landfill operation.

- 1.1.6 The location of the facilities from which the discharge originates is Block 3, Plan 21182 of Lot 1364, Lot 6103, Lot 6986, Block 2 of Lot 1364, Lot 6986, Plan 11981, and Lot 1366, all of Group One, New Westminster District.

The location of the point of discharge is District Lots 1366 and 1367, New Westminster District.

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## 2. GENERAL REQUIREMENTS

### 2.1 Completion Schedule

The landfill operation authorized in Section 1.1 must be developed in accordance with the following schedule:

	<u>Works</u>	<u>Completion Date</u>
Phase I:	Infrastructure and Cell #1(a)	4 <sup>th</sup> quarter 1998
	Cell #1(b)	4 <sup>th</sup> quarter 1999
Phase II:	Additional infrastructure and Cell #2	Year 2002 to 2004*
Phase III:	Additional infrastructure and Cell #3	Year 2006 to 2011*

\* Or later, depending upon the success of waste reduction and re-use programs.

### 2.2 Maintenance of Works and Emergency Procedures

The authorized works must be inspected regularly and maintained in good working order. In the event of an emergency or condition beyond the control of the permittee including, but not limited to, unauthorized fires arising from spontaneous combustion or other causes, or detection of leachate on the property, the permittee must take appropriate remedial action and notify the Director immediately. The Director may reduce or suspend operations to protect the environment until the authorized works has been restored, and/or corrective steps taken to prevent unauthorized discharges.

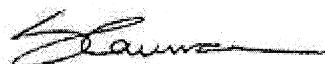
### 2.3 Bypasses

The discharge of leachate which has bypassed the authorized treatment works is prohibited unless the approval of the Director is obtained and confirmed in writing.

### 2.4 Process Modifications

The Regional Manager, Environmental Protection must be notified prior to implementing changes to any process that may adversely affect the quality and/or quantity of the discharge. Despite notification under this section, permitted levels must not be exceeded.

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**2.5 Site Preparation and Restoration**

Provision of fencing, site access, vehicle safety barriers, surface water diversionary works, firebreaks and site restoration as required, must be carried out to the satisfaction of the Director.

**2.6 Buffer Zones**

The permittee must maintain a buffer zone, at least 40 metres wide, between the site and the channel of the Rainy River. No refuse must be discharged within the buffer zone.

**2.7 Landfill Operation**

The permittee must maintain the landfill such that suitable cover material is applied on all exposed solid waste once every 20 operating days and at least once per month. Wood residue boiler fly, grate ash and spent bed sand are considered to constitute suitable cover for the other wastes disposed in the landfill. The Director may vary the frequency of covering when freezing conditions adversely affect normal operation.

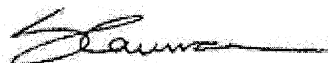
Wood waste contaminated with wood preserving chemicals and/or wastes that contain chemicals that can penetrate the high density polyethylene liner must not be incorporated into the landfill.

Waste asbestos may be discharged to the landfill authorized in Section 1 and must be managed in accordance with the Hazardous Waste Regulation.

**2.8 Fugitive Emission Control**

Fugitive emissions created within the operation area must be suppressed. If the air quality becomes a concern, the Director will evaluate the sensitivity of the receiving environment, the contribution of the permittee's sources, plus any other pertinent information. The Director may amend the permit to require additional monitoring and/or control measures on fugitive emission sources.

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2.9 **Miscellaneous Mill Waste**

The miscellaneous mill waste authorized for discharge in Section 1.1.3 is restricted to asphalt, concrete, bricks and the like from minor construction/demolition projects and/or road repair; road sweepings; shop floor sweepings; empty barrels; and used rope. The discharge of any miscellaneous mill waste other than the types specified above must be approved by the Director.

2.10 **Reduce, Recycle and Reuse**

The Ministry of Environment supports the sequential hierarchy of solid waste management, namely reduce, reuse and recycle. Accordingly the permittee is encouraged to segregate for recycling and reuse, where possible, materials destined for disposal at this site.

The permittee must make all efforts towards beneficial reuse of the wood residue boiler reject sand in order to reduce the volume discharged to the landfill.

2.11 **Maintenance of Contiguous Point – District Lots 1366 and 1367**

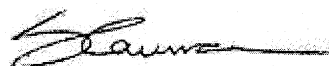
The permittee must ensure that District Lot 1366, New Westminster District remains contiguous with District Lot 1367, New Westminster District. The permittee must notify the Regional Manager, Environmental Protection in writing at least 90 days prior to any subdivision of District Lot 1366 and/or District Lot 1367, New Westminster District.

2.12 **Operating Plan**

The permittee must operate the landfill, authorized in Section 1.1, in accordance with an operating plan, prepared by a qualified professional, licensed to practice in the province of British Columbia.

The permittee must review the operating plan on an annual basis to determine if changes are required. Any revisions to the plan must be submitted to the Regional Manager, Environmental Protection as part of the annual report required in Section 3.4.

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### 2.13 Closure Plan

The permittee must maintain an up to date site closure plan. The closure plan may include, but is not limited to, details of the final landfill profiles and grades, final cover material specifications, perimeter and surface drainage provisions, proposed end use of the closed site and other closure requirements, as may be specified by the Director.

## 3. MONITORING AND REPORTING REQUIREMENTS

### 3.1 Monitoring Procedures

#### 3.1.1 Monitoring

The permittee must obtain a grab sample of the leachate collected in the lined landfill cell and have the sample analyzed for the following parameters:

<u>Parameter</u>	<u>Frequency</u>
pH	Semi-annually
Specific conductivity	Semi-annually
Biochemical oxygen demand	Semi-annually
Dioxins and furans	Annually

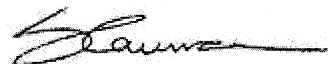
The leakage detection/collection system must be monitored semi-annually for the presence of flow. Should any groundwater be collected by the leakage detection/collection system, the collected groundwater must also be analyzed for the same parameters and on the same frequency as listed above.

Based on the sampling results, the Director may amend the permit to extend or alter the monitoring requirements.

#### 3.1.2 Discharge Quantities

The permittee must record the types and volumes (uncompacted cubic metres) of refuse discharge to the landfill (not including natural soil used as intermediate cover). These records must be maintained on site for inspection and must be submitted to the Regional Manager, Environmental Protection as required by Environmental Protection staff.

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### 3.2 Receiving Environment Monitoring

#### 3.2.1 Groundwater Monitoring

The permittee must maintain the six (6) groundwater monitoring wells, approximately located as shown in attached Site Plan A, for Phase I operation. These wells must be sampled and tested semi-annually for pH, specific conductivity, biochemical oxygen demand and metals and annually for PAHs, dioxins and furans. Based on the sampling results, the Director may amend the permit to extend or alter the monitoring requirements.

### 3.3 Monitoring Procedures

#### 3.3.1 Sampling Procedures

Sampling is to be carried out in accordance with the procedures described in the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2003 Edition (Permittee)", or most recent edition, or by suitable alternative procedures as authorized by the Director.

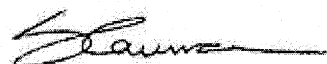
A copy of the above manual may be purchased from the Queen's Printer Publications Centre, P. O. Box 9452, Stn. Prov. Gov't. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or 250-387-6409) or via the internet at [www.crownpub.bc.ca](http://www.crownpub.bc.ca). A copy of the manual is also available for review at all Environmental Protection offices.

#### 3.3.2 Analytical Procedures

Analyses are to be carried out in accordance with procedures described in the "British Columbia Laboratory Manual (2009 Permittee Edition)", or the most recent edition, or by suitable alternative procedures as authorized by the Director.

A copy of the above manual may be purchased from the Queen's Printer Publications Centre, P. O. Box 9452, Stn. Prov. Gov't. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or 250-387-6409) or via the internet at [www.crownpub.bc.ca](http://www.crownpub.bc.ca). A copy of the manual is also available for review at all Environmental Protection offices.

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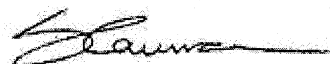
### 3.4 **Reporting**

An annual report must be prepared by the permittee and submitted to the Regional Manager, Environmental Protection. The report must include, but is not limited to the following items:

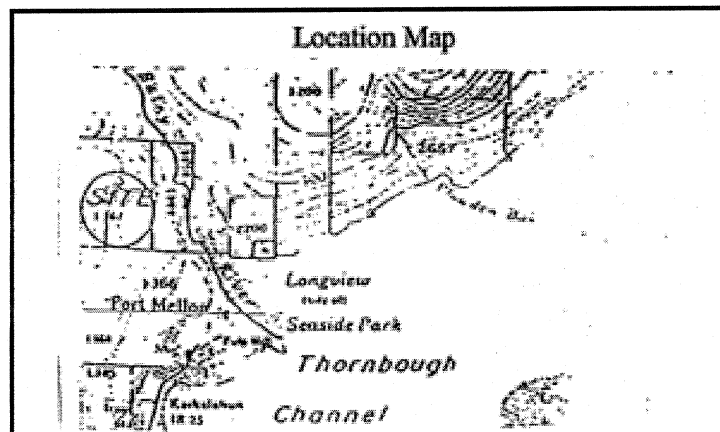
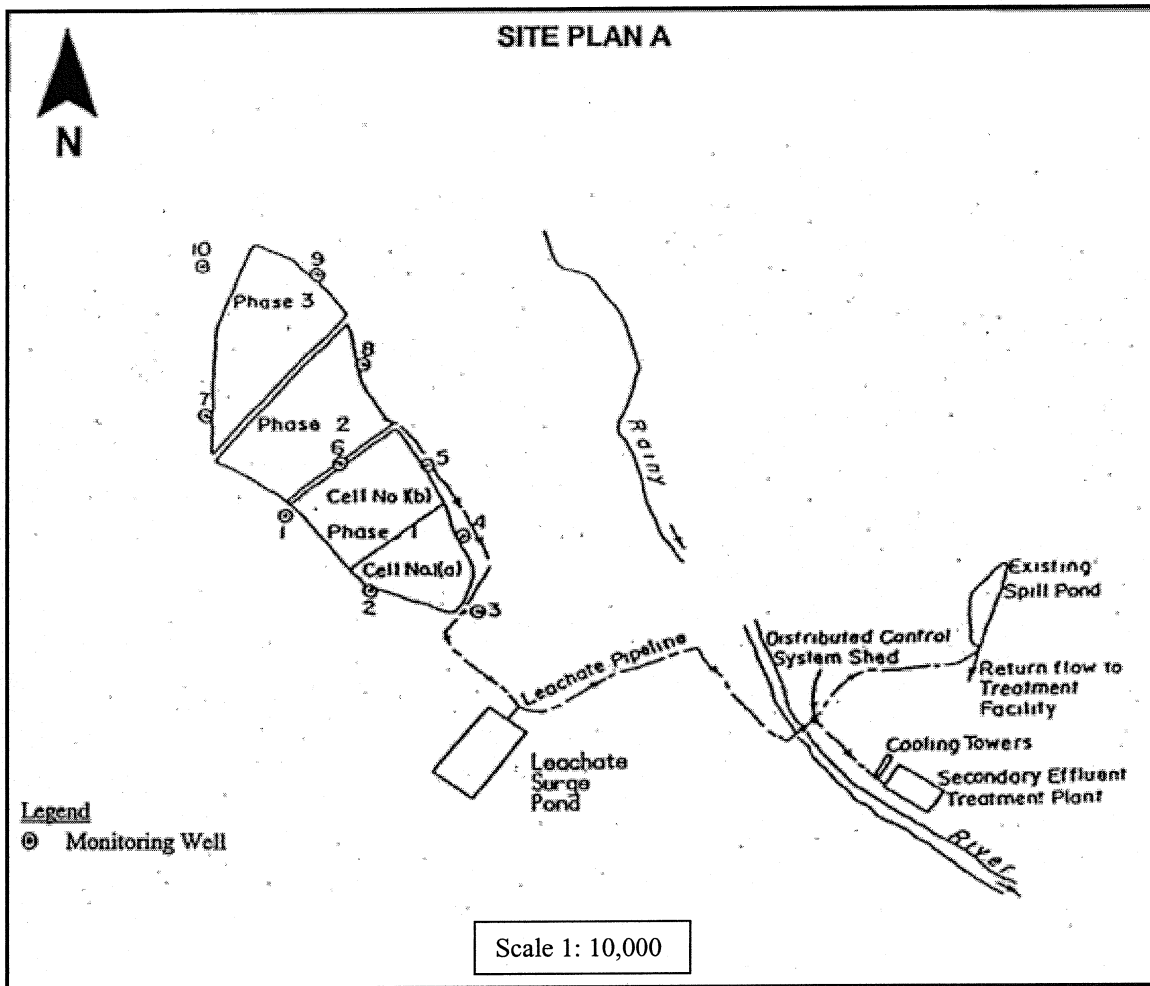
- i) types and volumes (uncompacted cubic metres) of refuse discharged as required by Section 3.1.2,
- ii) monitoring data as required by Sections 3.1.1 and 3.2.1 and analysis of the data,
- iii) remaining capacity of landfill (uncompacted cubic metres),
- iv) changes to the operational plan as necessary
- v) review of closure plan.

The report for each calendar year must be submitted by March 31 of the following year.

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