BRITISH COLUMBIA

2010 VANCOUVER

File: PE-01152

July 12, 2005

REGISTERED: RT 895 184 768 CA

West Fraser Mills Ltd. and Daishowa Marubeni International Ltd.
operating in the firm name and style of
Cariboo Pulp and Paper Company
600 North Star Road
Box 7500
Quesnel BC V2J 3J6

Dear Permittee:

Re: Transfer and Amendment of Permit PE-01152

In response to your letter dated January 28, 2005, and pursuant to Section 17 of the *Environmental Management Act*, the Director hereby consents to the transfer of Permit PE-01152 from WELDWOOD OF CANADA LIMITED AND DAISHOWA-MARUBENI INTERNATIONAL LTD. OPERATING IN THE FIRM NAME AND STYLE OF CARIBOO PULP AND PAPER COMPANY to WEST FRASER MILLS LTD. AND DAISHOWA MARUBENI INTERNATIONAL LTD. OPERATING IN THE FIRM NAME AND STYLE OF CARIBOO PULP AND PAPER COMPANY.

Furthermore, pursuant to Section 16 of the *Environmental Management Act*, Permit PE-01152 is hereby amended to reflect the company name change from WELDWOOD OF CANADA LIMITED AND DAISHOWA-MARUBENI INTERNATIONAL LTD. OPERATING IN THE FIRM NAME AND STYLE OF CARIBOO PULP AND PAPER COMPANY to WEST FRASER MILLS LTD. AND DAISHOWA MARUBENI INTERNATIONAL LTD. OPERATING IN THE FIRM NAME AND STYLE OF CARIBOO PULP AND PAPER COMPANY. A copy of the permit is enclosed for your records. Please note that although a revised permit has not been produced at this time, a copy of this letter is being placed on the permit file, as an addendum to the permit, to reflect the change in the name of the permit holder.

.../Pg. 2

Ministry of Environment
Regional Operations
Cariboo Region
Mailing/Location Address
Suite 400 - 640 Borland St
Williams Lake, BC V2G 4T1
Telephone: (250) 398-4530
Facsimile: (250) 398-4214
http://www.gov.bc.ca/
http://www.gov.bc.ca/wlap

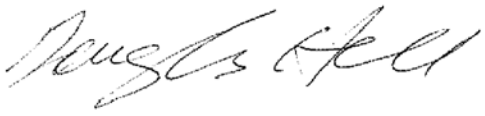
WEST FRASER MILLS LTD. AND DAISHOWA MARUBENI INTERNATIONAL LTD. OPERATING IN THE FIRM NAME AND STYLE OF CARIBOO PULP AND PAPER COMPANY is now the Permittee with all inherent rights and responsibilities. Your attention is respectfully directed to the conditions of the permit. An annual fee for the permit will be determined in accordance with 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. It is also the responsibility of the Permittee to ensure that all activities conducted under this permit are carried out with due 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 Thompson and Cariboo Regions. Plans, data and reports pertinent to the permit are to be submitted to the Regional Manager, Environmental Protection, at Ministry of Environment, Regional Operations, Thompson and Cariboo Regions, Suite 400 - 640 Borland Street, Williams Lake, British Columbia V2G 4T1.

Yours truly,



Douglas Hill, P.Eng.
for Director, *Environmental Management Act*
Cariboo Region

Enclosure

pc: Environment Canada

BRITISH COLUMBIA

File: PE 1152

Date DEC 04 2001

REGISTERED: RT 279 606 695 CA

Cariboo Pulp and Paper Company
PO Box 7500
Quesnel BC V2J 3J6

Dear Permittee:

Enclosed is amended Permit PE 1152 issued under the provisions of the *Waste Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the permit. An annual permit fee will be determined according to the *Waste Management Permit Fees Regulation*.

This permit does not authorise entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorised by the owner of such lands or works. The responsibility for obtaining such authority shall rest with the permit holder. Failure to comply with the requirements of this permit is an offence pursuant to Section 54(7) of the *Waste Management Act*. It is also the responsibility of the permit holder to ensure that all activities conducted under this authorisation 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 7 of the *Waste Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given in accordance with the practices, procedures and forms prescribed by regulation under the *Environment Management Act*. For further information please contact the Environmental Appeal Board at (250) 387-3464.

Administration of this permit will be carried out by staff from our Regional office located at 400-640 Borland Street, Williams Lake, British Columbia, V2G 4T1 (telephone (250) 398-4530). Plans, data and reports pertinent to the permit are to be submitted to the Regional Waste Manager at this address.

Yours truly,

J. Negraeff, P. Eng.
Regional Waste Manager
Cariboo Region

Enclosure

Ministry of Water, Land, and Air Protection

Cariboo Region

Mailing/Location Address:
400 - 640 Borland Street
Williams Lake BC V2G 4T1

Telephone: 250-398-4530
Facsimile: 250-398-4214

BRITISH COLUMBIA

MINISTRY OF WATER, LAND AND AIR PROTECTION

Pollution Prevention
400-640 Borland Street
Williams Lake, British Columbia
V2G 4T1
Telephone: (250) 398-4530
Fax: (250) 398-4214

PERMIT

PE1152

Under the Provisions of the Waste Management Act

Weldwood of Canada Limited and Daishowa-Marubeni International Ltd.,

operating in the firm name and style of

Cariboo Pulp and Paper Company

PO Box 7500

Quesnel , British Columbia

V2J 3J6

is authorised to discharge effluent to the Fraser and Quesnel Rivers from a pulp mill, plywood plant, sawmill complex and sewage collection system 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.

This permit supersedes and amends all previous versions of Permit PE1152 , issued under Part 2 Section 10 of the Waste Management Act.

Date Issued: August 3, 1972
Date Amended: DEC 04 2001
(most recent)

J. Negraeff, P. Eng.
Regional Waste Manager

DEFINITIONS

For the purposes of this permit, the following definitions apply:

"AOX" means halogenated organic compounds that are adsorbable by activated carbon;

"CBPROD" means the 90th percentile of the daily production rate of bleached pulp produced from an on-site bleach plant with the use of chlorine or chlorine compounds, expressed as Adt, determined by the use of statistical methods, and using a period of time approved by the manager for determination of the 90th percentile of the rate of chlorine or chlorine compounds bleached pulp production;

"EFF" means the 90th percentile of the rate of effluent, expressed as m3/d including any sanitary effluent combined with process effluent, discharged from a pulp or paper or pulp and paper mill, determined by the use of statistical methods, and using a period of time approved by the manager for determination of the 90th percentile of the rate of discharge of effluent;

"non-measurable" means a dioxin concentration of 15 parts per quadrillion (ppq) or as defined by the federal Pulp and Paper Mill Effluent Chlorinated Dioxins and Furans Regulations.

"Reference Production Rate" means the highest value of the 90th percentiles of the daily production of finished product at the mill for any of the previous three years.

"96 hr LC50 toxicity (rainbow trout)" means the calculated concentration of effluent that is lethal to 50% of the test fish (rainbow trout (Oncorhynchus mykiss)) during a 96 hour exposure. The effluent is considered toxic when, at 100% concentration, it kills more than 50% of the test fish population subjected to it during a 96 hour period.

"48 hr LC50 toxicity (Daphnia magna)" means the calculated concentration of effluent that is lethal to 50% of the Daphnia magna subjected to it during a 48 hour exposure. The effluent is considered toxic when, at 100% concentration, it kills more than 50% of the Daphnia magna subjected to it during a 48 hour period.

J. Negraeff, P. Eng.
Regional Waste Manager

1. AUTHORISED DISCHARGES

1.1 This subsection applies to the discharge of effluent from an **EFFLUENT TREATMENT FACILITY**. The site reference number for this discharge is E103117.

1.1.1 The maximum authorised rate of discharge is 118,200 m^3/d.

1.1.2 The characteristics of the discharge shall be:

	Total Suspended Solids	BOD_5	AOX
Monthly Average Concentration	110 mg/l	73 mg/l	7 mg/l
Daily Maximum Concentration	183 mg/l	73 mg/l	11 mg/l
24 hour Maximum Loading	19,725 kg/day	7,890 kg/day	-
Monthly Maximum Loading	331,380 kg/month	220,920 kg/month	-

96 hour LC_{50} toxicity (rainbow trout): 100% V/V (minimum);

48 hour LC_{50} toxicity (Daphnia magna): 100% V/V (minimum);

2,3,7,8-TCDD: Non-measurable (maximum);

2,3,7,8-TCDF: 50 ppq (maximum);

Temperature: 38 °C (maximum);

Dissolved Oxygen concentration 2.0 mg/l (minimum);

pH shall be in the range of 6.5 and 8.5;

1.1.3 The works authorized are in plant chemical and fibre recovery facilities, effluent treatment facilities consisting of a mechanical clarifier, and emergency spill containment pond, two sludge decant ponds, settling basin, four aerated stabilization basins, submerged outfall and diffuser, and related appurtenances, approximately located as shown on the attached site Plan A. The #4 Lagoon must be complete and in operation on or before December 31, 2002, all other authorised works must be complete and in operation on and from the date of this amended permit.

1.1.4 The location of the facilities from which the discharge originates is D.L. 77 and D.L. 78, Cariboo Land District, approximately located as shown on the attached Site Plan A.

1.1.5 The location of the point of discharge is within the Fraser River, adjacent to D.L. 81 Cariboo Land District, approximately as located on the attached Site Plan A.

J. Negraeff, P. Eng.
Regional Waste Manager

1.2 This subsection applies to the discharge of effluent from a **WATER TREATMENT FACILITY**. The site reference number for this discharge is E210210.

1.2.1 The maximum authorised rate of discharge is 6300 m^3/d.

1.2.2 The characteristics of the discharge shall be of a nature originating from water treatment clarifier sludge blowdown and filter backwash.

1.2.3 The works authorized are a mechanical clarifier, filters, outfall and related appurtenances, approximately located as shown on the attached Site Plan A. The authorised works must be complete and in operation on and from the date of this amended permit.

1.2.4 The location of the facilities from which the discharge originates is D.L. 77 and D.L. 78 Cariboo Land District, approximately as shown on the attached Site Plan A.

1.2.5 The location of the point of discharge is within the Quesnel River adjacent to D.L. 77, Cariboo Land District, approximately as shown on the attached Site Plan A.

2. GENERAL REQUIREMENTS

2.1 Regulatory Requirements

Nothing in this permit releases the permittee from the requirements of any applicable legislation, including the federal *"Pulp and Paper Effluent Regulations,"* (Canada Gazette, Part II, May 20, 1992), the *"Pulp and Paper Defoamer and Wood Chip Regulation"*, (Canada Gazette, Part II, May 20, 1992), the *"Pulp and Paper Mill Effluent Chlorinated Dioxins and Furans Regulations"*, (Canada Gazette, Part II, May 20, 1992), and the provincial *"Pulp Mill and Pulp and Paper Mill Liquid Effluent Regulation"*, BC Reg 470/90. Where there is any apparent conflict between the requirements of this permit and any other legislation, the more stringent requirements shall apply.

2.2 Agreements for Treatment of Municipal Sewage

The agreements between the permittee and the City of Quesnel and between the permittee and the Cariboo Regional District are recognized. In the event that either agreement is modified or terminated, the permittee shall immediately notify the Regional Waste Manager and provide copies of the modified agreements.

2.3 Treatment of Plywood Plant Effluent

The treatment of plywood plant effluent from the Weldwood of Canada plywood operation (Westply) is authorized on an "as needed" basis. The permittee shall maintain a record of the date and volume of plywood plant effluent transferred to the effluent treatment system.

2.4 Treatment of Sawmill Stormwater Runoff

The treatment of a maximum of 4,600 m^3/year of collected stormwater from the Weldwood of Canada sawmill operation in Quesnel is authorized. The permittee shall maintain a record of the date and volume of sawmill stormwater effluent transferred to the effluent treatment system.

J. Negraeff, P. Eng.
Regional Waste Manager

2.5 Maintenance of Works and Emergency Procedures

The permittee shall inspect the authorised works regularly and maintain them in good working order. In the event of an emergency or condition beyond the control of the permittee which prevents effective operation of the approved method of pollution control, the permittee shall immediately take appropriate remedial action and shall notify the Regional Waste Manager or an Officer designated by the Regional Waste Manager:

a) By telephone, at (250)398-4530, if the condition occurs between the hours of 08:00 and 16:30, Monday to Friday;

b) by facsimile transmission, at (250)398-4214, if the condition occurs at any other time.

In addition to any reporting requirements under the Spill Reporting Regulation, notification of any occurrence under this section must be reported to the Regional Waste Manager within 24 hours of such occurrence.

The foregoing does not exempt the permittee from compliance with all other applicable legislation, whether or not an emergency exists.

2.6 Spill Reporting

All spills to the environment, as defined by the *"Spill Reporting Regulation"*, BC Reg 263/90, or to the effluent treatment facility with potential to impair the treatment process shall be reported immediately to the Provincial Emergency Program 24 hour line at 1-800-663-3456.

2.7 Bypasses

The permittee shall ensure that no waste is discharged without being processed through the authorised works unless prior written approval is received from the Regional Waste Manager.

2.8 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.

2.9 Foam

Should objectionable amounts of foam, attributable to the effluent, occur on the receiving waters, measures will be required to either eliminate the cause of the foam or to eliminate the foam by additional treatment.

2.10 Colour

Should colour, attributable to the effluent, become an objectionable feature in the receiving environment, then additional treatment shall be provided to remove colour forming constituents from the effluent prior to discharge when so directed in writing by the Regional Waste Manager.

2.11 Sludge Disposal

Sludge removed from the clarifier, spill basin, decant ponds, or other part of the effluent treatment system shall be disposed of in a location and in a manner acceptable to the Regional Waste Manager.

2.12 Nutrients

Should nutrients be added to increase the efficiency of any biological treatment system, the quantity of nutrient shall be so controlled that excess nutrients are not discharged to the receiving waters. The ratio of BOD:N:P shall be recorded and data kept available for inspection.

2.13 Emergency Response Plan

The permittee shall prepare and submit an emergency response plan that describes the procedures to be taken to prevent or mitigate any deposit of deleterious substance out of the normal course of events. The emergency response plan shall be implemented immediately if there is a deposit, or any risk of a deposit, of a deleterious substance out of the normal course of events. In addition, an updated emergency response plan, including a report on any emergency responses undertaken in the previous year, shall be submitted by January 31 of each year. The permittee shall also prepare, update annually and keep available for inspection, a remedial plan, describing procedures to be taken by the permittee to eliminate all unauthorized deposits of deleterious substances if the effluent fails an acute lethality test using rainbow trout.

3. MONITORING AND REPORTING REQUIREMENTS

3.1 Discharge Monitoring

The permittee shall carry out the following monitoring program on the discharge authorized in Subsection 1.1, and analyze the effluent for the specified parameters:

Parameter	Frequency	Sample Type
BOD5 (mg/l)	3X/week	24 hour composite
TSS (mg/l)	Daily	24 hour composite
VSS (mg/l)	Weekly	24 hour composite
48 hour LC50, Daphnia Magna	Weekly	Grab
96 hour LC50, Rainbow Trout	Monthly	Grab
AOX (mg/l)	Weekly	Grab
2,3,7,8-TCDD (ppq)	Monthly	24 hour composite
2,3,7,8-TCDF (ppq)	Monthly	24 hour composite
Flow rate (m3/day)	Continuous	Daily maximum
Temperature (0C)	Continuous	Daily maximum
pH (pH units)	Continuous	Daily range
Dissolved oxygen	Daily	Daily minimum
Conductivity (µS/cm)	Continuous	Daily maximum
Resin acids (mg/l)	Monthly	Grab
Ammonia (as N) (mg/l)	Once per year	Grab
Nitrite (as N) (mg/l)	Once per year	Grab
Organic Nitrogen (as N) (mg/l)	Once per year	Grab
Total phosphorus (mg/l)	Once per year	Grab
Total P (dissolved) (mg/l)	Once per year	Grab
Coliform (total and faecal) (MPN/100 ml)	Monthly	Grab
Colour(TAC) (APHA units)	Monthly	Grab

3.2 Composite Sampling

The permittee shall maintain a suitable sampling facility and obtain a composite sample of the effluent once each day. All composite samples shall be 24 hour composites, consisting of at least one sample every 15 minutes. Proper care should be taken in sampling, storing and transporting the samples to adequately control temperature and avoid contamination, breakage, etc.

3.3 Continuous Monitoring

The maximum and average daily values shall be recorded for temperature and electrical conductivity. The pH range of the effluent shall be recorded also. The results of these tests shall be kept available for inspection for a period of at least three years.

3.4 Toxicity Monitoring

For the discharge authorized under Subsection 1.1, rainbow trout toxicity testing frequency shall be increased from once per month to once per week if a sample of effluent fails the rainbow trout toxicity test. Samples shall continue to be collected and tested on one day each week until three consecutive non-toxic results are obtained, at which time testing can revert back to once per month

Daphnia magna toxicity testing shall be conducted once per week. However, if a sample of effluent fails the Daphnia magna toxicity test, a sample of effluent shall be collected without delay and tested for 96hr LC_{50}, using rainbow trout in accordance with accepted procedures. Samples shall continue to be collected and tested on three days each week for 48 hr LC_{50}, using Daphnia magna until three consecutive non-toxic test results are obtained, at which time testing can revert back to once per week.

3.5 Dioxin and Furan Monitoring

2,3,7,8-TCDD and 2,3,7,8-TCDF testing shall be conducted once per month on the authorized discharge described in Subsection 1.1. If three consecutive monthly samples of effluent meet the quality requirements set out in Subsection 1.1.2, testing may be reduced to once per quarter. If three consecutive quarterly samples meet the quality requirement described in Subsection 1.1.2, testing may be reduced to annually. However, if any of the annual samples do not meet the quality requirements, sampling shall revert to monthly. Annual samples shall be collected with at least 350 days between any sample collection.

3.6 Flow Measurement

The permittee shall provide and maintain a suitable flow measuring device on the discharge authorized under Subsection 1.1. Once per day, the effluent volume discharged over a 24 hour period shall be recorded. In addition, once per month, the total effluent volume over the calendar month shall be recorded.

The flow monitoring equipment shall be calibrated to be accurate to within 10 percent.

3.7 Monitoring of the Receiving Environment

The permittee shall monitor the receiving water quality and carry out chemical, physical and biological studies on the receiving environment as required by the Regional Waste Manager. Specifically, the effect that effluent temperature has on the temperature of the Fraser River is to be included in the next study conducted following the issuance of the amended permit. This program may be drawn up in such a manner as to include other similar major discharges in the area and with the participation of other dischargers.

A summary of the results of the program, including an interpretation of the effect on the receiving waters and environment, is to be submitted in a form which is suitable for release to the public. The data from the program will also be reviewed periodically by the Regional Waste Manager to determine cause and effect relationships and to facilitate modifications to the program's content and frequency as indicated by the data content.

The frequency of these studies will be determined by the Regional Waste Manager following evaluation of each preceding study.

The federal requirement to participate in Environmental Effects Monitoring is acknowledged. The Regional Waste Manager may require additional monitoring, as is deemed necessary, taking into consideration the results of these and any other studies.

J. Negraeff, P. Eng.
Regional Waste Manager

3.8 Analyses

Analyses 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 authorised by the Regional Waste Manager.

A copy of the above manual may be purchased from the Queen's Printer Publication Centre, P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). The manual is also available for review at all Pollution Prevention offices.

3.9 Sampling Location and Techniques

Samples required under Subsection 3.1 shall be obtained at the final outlet of the treatment facility, or at such other points as may be approved by the Regional Waste Manager.

Sampling and flow measurement shall be carried out in accordance with the procedures described in the "Field Criteria for Sampling Effluents and Receiving Waters", April 1989, 17 pp., or by suitable alternative as authorized by the Regional Waste Manager.

A copy of the above manual may be purchased from the Queen's Printer Publication Centre, P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). The manual is also available for review at all Pollution Prevention offices.

3.10 Data Quality Assurance Clauses

In accordance with the *Environmental Data Quality Assurance Regulation,* wherever "designated characteristics" are submitted by the Permittee, a "registered laboratory" shall be used.

The Permittee shall submit a plan outlining the Quality Assurance / Quality Control Protocols proposed for each parameter regulated under the permit. The plan must cover aspects of both precision and accuracy, and must be acceptable to the Regional Waste Manager. The plan is to be submitted and implemented within 3 months following the approval of the plan by the manager. If the monitoring program changes, the plan must be revised and the plan shall be resubmitted to the Regional Waste Manager within 3 months of the changes. The plan shall include, but is not limited to, the following:

1) For each parameter indicate the ratio of samples to laboratory blanks, acceptable blank values for laboratory analysis and field samples, frequency of field blanks collected, and sample collection methods;

2) For each parameter indicate the ratio of samples to laboratory duplicates, the frequency of field duplicates collected, collection method, and the acceptable RPD (Relative Percent Difference) or RSD (Relative Standard Deviation) between the laboratory duplicates and field duplicates;

3) For each parameter indicate the ratio of samples to reference standards and the acceptable percent recovery for reference standards; and

4) The corrective measures taken if the blanks, duplicates, or reference standards are outside acceptable ranges.

At the request of the Regional Waste Manager, the Permittee shall submit for review, all relevant quality assurance information including that from any contracted laboratory. The Regional Waste Manager may require submission of additional information pertaining to the quality assurance / quality control program.

J. Negraeff, P. Eng.
Regional Waste Manager

3.11 Determination of CBPROD, EFF and Reference Production Rate

Record once per day the bleached pulp machine production in Adt/d and effluent discharge in m^3/d. Calculate and submit to the Regional Waste Manager for approval, by January 31 of each year, the Reference Production Rate, CBPROD and EFF.

The TSS/BOD concentration and loading authorized in Subsection 1.1 were calculated using the following 90^{th} percentile inputs to the formulas set out in the federal and provincial regulations governing liquid effluent discharges from pulp mills:

EFF	107596 m^3/d
CBPROD	1052 Adt/d
RPR	1056 Adt/d

Production or other changes that may result in changes to these figures may result in the permit allowances being reduced accordingly.

3.12 Reporting

The permittee shall submit any information required under this permit to the Regional Waste Manager, located at 400 – 640 Borland Street, Williams Lake, BC, V2G 4T1.

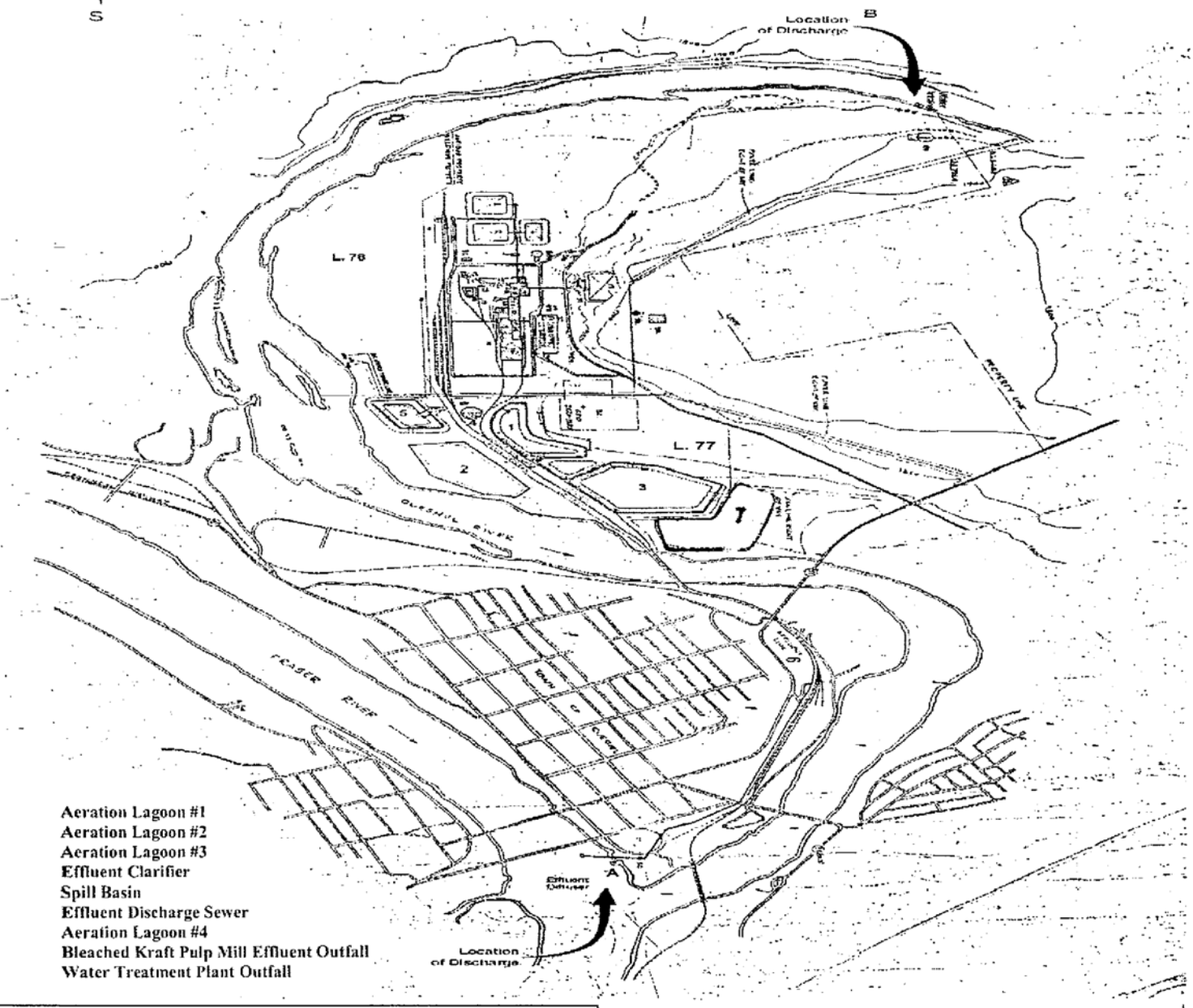
The permittee shall submit the information required in Subsection 3.1 of the permit, along with any pertinent process data, in a format acceptable to the Regional Waste Manager, within 30 days from the end of the month in which the samples were collected.

In the event of a failure of any 96 hr LC_{50} trout bioassay test, the result shall be reported immediately to the Regional Waste Manager. The results of any subsequent toxicity testing, whether pass or fail, shall also be immediately reported, until otherwise directed by the Regional Waste Manager.

Any reporting format required by the federal legislation will be accepted as fulfilling provincial requirements for the incident or information being reported.

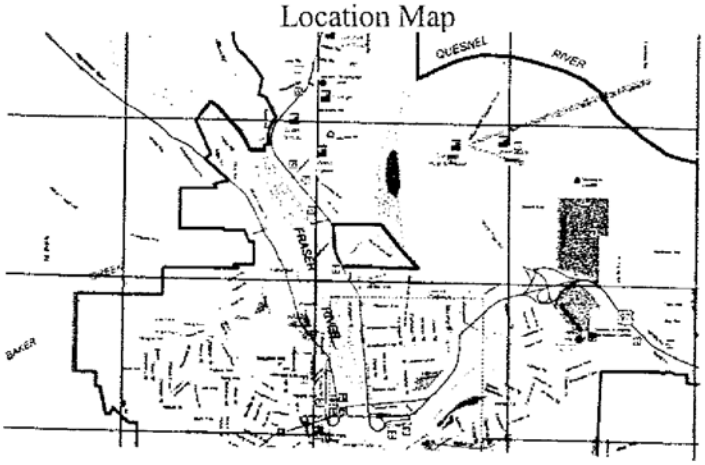
J. Negraeff, P. Eng.
Regional Waste Manager

Site Plan A



1	Aeration Lagoon #1
2	Aeration Lagoon #2
3	Aeration Lagoon #3
4	Effluent Clarifier
5	Spill Basin
6	Effluent Discharge Sewer
7	Aeration Lagoon #4
A	Bleached Kraft Pulp Mill Effluent Outfall
B	Water Treatment Plant Outfall

Location Map



Scale: Not to scale

Permit: PE1152

Date: DEC 04 2001

J. Negraeff, P. Eng.
Regional Waste Manager
Cariboo Region

NEW AND MODIFIED ANALYTICAL METHOD APPROVAL FORM

BC Ministry of Environment

PARAMETER: **Cariboo Pulp & Paper – Nitrite Analysis by Ion Chromatography**

METHOD CHANGE: New: Liquid Chromatography in which ionic constituents separated by ion exchange and separated ions measured by conductivity on the basis of retention time as compared to standards.

DETECTION LIMIT: 0.005 mg/L – Nitrite is quantified based on individual retention times in reagent water, may vary by lab.

METHOD EQUIVALENCY: Equivalency to Reference method, Standard Methods, SM4110 Determination of Anions by Ion Chromatography, Sample Hold Time is 72 hours max.

INTERFERENCES: High concentration of any one ion will interfere with the resolution of other ions.

ANALYTICAL COST:

Current Cost: N/A

INTERIM MINISTRY APPROVAL: Interim Approval until BCMOE PBM Method is published in the Environmental Lab Manual

Steve Howard

Sept. 2, 2008
date