



September 21, 2017

Tracking Number: 345249
Authorization Number: 3149

REGISTERED MAIL

Catalyst Paper Corporation and Catalyst Pulp Operations Limited doing business as
Catalyst Paper, General Partnership
2nd Floor
3600 Lysander Lane
Richmond BC V7B 1C3

Dear Permittee:

Enclosed is Amended Permit 3149 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.

Please be advised that to meet reporting requirements in a form and manner acceptable to the Director, plans, reports and notifications related to the administration of this permit must be submitted electronically to the following ministry email addresses:

- EnvAuthorizationsReporting@gov.bc.ca, for monitoring and annual reports.
- EnvironmentalCompliance@gov.bc.ca, for non-compliance reports, notifications and emergency notifications.

For further information, including correspondence subject line and document naming conventions, please visit the ministry's Data and Report Submissions web page at

<http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions>

Additional requirements may also be specified by regulations under the *Environmental Management Act* including, but not limited to, [Hazardous Waste Regulation](#), [Spill Reporting Regulation](#), [Contaminated Sites Regulation](#), [Public Notification Regulation](#), and [Environmental Data Quality Assurance Regulation](#).

Administration of this permit will be carried out by staff from the Environmental Protection Division's Regional Operations Branch. Plans, data and reports pertinent to the permit are to be submitted by email or electronic transfer to the Director, designated Officer, or as further instructed.

Yours truly,



Bryan Vroom
for Director, *Environmental Management Act*
Authorizations - South Region

Enclosure

cc: Environment Canada

Phil Lum, Manager Environment, Catalyst Paper, General Partnership, 5775 Ash Avenue, Powell River, BC V8A 4R3



MINISTRY OF ENVIRONMENT

PERMIT

3149

Under the Provisions of the Environmental Management Act

Catalyst Paper Corporation and Catalyst Pulp Operations Limited doing business as Catalyst Paper, General Partnership

2nd Floor
3600 Lysander Lane
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is authorized to discharge air contaminants to the air from a pulp and paper mill located at 5775 Ash Avenue, Powell River, 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 3149 issued under Part 2, Section 14 of the Environmental Management Act.

1 AUTHORIZED DISCHARGES

1.1. This section applies to the discharge of air contaminants from THE No. 19 WOOD RESIDUE BOILER STACK. The site reference number for this discharge is E225337.

- 1.1.1. The maximum authorized rate of discharge is 10550 cubic metres per minute. The authorized discharge period is continuous.
1.1.2. The characteristics of the discharge must be equivalent to or better than:

Table with 2 columns: Contaminant, Maximum Concentration. Rows include Particulate Matter, Nitrogen Oxides (NOx), and Opacity.

- 1.1.3. The materials authorized to be combusted in the boiler are limited to the following: Wood residue, Effluent treatment sludges, Natural gas, and, subject to Section 2.10: Oil-laden hog fuel, Spent oil-laden absorbent pads, and Activated charcoal


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[Signature]
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for Director, Environmental Management Act
Authorizations - South Region

- 1.1.4. The authorized works are a bubbling fluidized bed wood residue boiler with an oversized furnace, a five-field electrostatic precipitator, exhaust gas recirculation, stack, and related appurtenances approximately located as shown on Site Plan A.
 - 1.1.5. The authorized works must be complete and in operation while discharging.
 - 1.1.6. The location of the facilities from which the discharge originates and the point of discharge is L3088 (PID 015-890-333), L7212 (PID 004-781-821), L7213 (PID 004-781-856), L6071, Water L 6174, L6237A, L5922, L5923, L5924, L4071, L4072, L3437 (PID 015-875-121), L3090 (PID 015-890-325), L3091 (PID 015-890-317), Lot A2, Ref. Plan 490, DL 3091 (PID 015-890-309), Part of Block 43 (PID 002-554-682), Block 44 (PID 010-264-469), and Block 46 (PID 002-560-194) of DL 450, Plan 8096, New Westminster District.
- 1.2.** This section applies to the discharge of air contaminants from **THE No. 18 STANDBY POWER BOILER STACK**. The site reference number for this discharge is E101669.
- 1.2.1. The maximum authorized rate of discharge is 4,235 cubic metres per minute. The authorized discharge period is continuous.
 - 1.2.2. The characteristics of the discharge must be those of the combustion products of natural gas.
 - 1.2.3. The authorized works are a stack and related appurtenances approximately located as shown on Site Plan A.
 - 1.2.4. The location of the facilities from which the discharge originates and the point of discharge is the same as Section 1.1 above.
- 1.3.** This section applies to the discharge of air contaminants from a **SULPHUR BURNER STACK**. The site reference number for this discharge is E208433.
- 1.3.1. The maximum authorized rate of discharge is 50 cubic metres per minute. The authorized discharge period is continuous.
 - 1.3.2. The characteristics of the discharge must be equivalent to or better than:

Contaminant	Maximum Concentration
Sulphur Dioxide (SO ₂)	27 mg/m ³
 - 1.3.3. The authorized works are a caustic absorber system, fan, stack, and related appurtenances approximately located as shown on Site Plan A.
 - 1.3.4. The location of the facilities from which the discharge originates and the point of discharge is the same as Section 1.1 above.

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1.4. This section applies to the discharge of air from a **MISCELLANEOUS WOOD RESIDUE CYCLONES**. The site reference number for this discharge is E208510.

1.4.1. The total maximum authorized rate of discharge is 750 cubic metres per minute. The authorized discharge period is continuous.

1.4.2. The characteristics of the discharge must be equivalent to or better than:

Contaminant	Maximum Concentration
Particulate Matter	120 mg/m ³

1.4.3. The authorized works are three wood residue cyclones, and related appurtenances approximately located as shown on Site Plan A.

1.4.4. The location of the facilities from which the discharge originates and the point of discharge is the same as Section 1.1 above.

1.5. This section applies to the discharge of air from the **EXHAUST STACKS OF MECHANICAL PULP MILLS, FIVE THERMO-MECHANICAL PULPING LINES, THREE LINES OF MECHANICAL PULP BRIGHTENING USING HYDROGEN PEROXIDE, PAPER MACHINES NUMBERED 9, 10, AND 11, AND MISCELLANEOUS VENTS AND EXHAUSTS**. The site reference number for this discharge is E208511.

1.5.1. The maximum authorized rate of discharge is 115,000 cubic metres per minute. The authorized discharge period is continuous.


1.5.2. The characteristics of the discharge must be steam vapour and fugitive particulate originating from:

- a. Thermos-mechanical pulp manufacturing,
- b. Paper drying,
- c. Miscellaneous tank vents, including repulpers, and steam vents, and
- d. Ventilation of buildings.

1.5.3. The authorized works are vents, stacks, and related appurtenances approximately located as shown on Site Plan A.

1.5.4. The location of the facilities from which the discharge originates and the point of discharge is the same as Section 1.1 above.

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2 GENERAL REQUIREMENTS

2.1 PROCESS MODIFICATIONS

The Permittee must notify the Director, in a form and manner acceptable to the Director, 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.

2.2 BYPASSES

Any bypass of the authorized works is prohibited unless the approval of the Director is obtained and confirmed in writing.

2.3 MAINTENANCE OF WORKS AND EMERGENCY PROCEDURES

The Permittee must inspect the authorized 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 authorized works or leads to an unauthorized discharge, the Permittee must take appropriate remedial action and notify the Director immediately in a form and manner acceptable to the Director. The Director may reduce or suspend operations to protect the environment until the authorized works have been restored, and/or corrective steps taken to prevent unauthorized discharges.


2.4 FUGITIVE PARTICULATE EMISSION

The Permittee must control fugitive particulate emissions generated from the property. Should the Director have reasonable grounds to believe that fugitive particulate emissions cause pollution outside the property boundary, the Permittee must undertake additional measures and/or curtail operations to control the emissions.

2.5 ADDITIONAL TREATMENT

If the Permittee is not meeting the emission characteristics specified in this Permit or if the Permittee is causing an adverse impact on the ambient air quality, the Director may amend the Permit to require the installation of additional treatment works or the implementation of other measures necessary to meet Permit conditions or to lessen the impact on the ambient air quality.

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2.6 EMISSION QUALITY LIMITS

Based on the results of the monitoring program and/or other information, the Director may, for the protection of the environment, amend the Permit to specify additional emission quality limits and the sampling methods or frequencies the limits are based on.

2.7 COMBUSTION RESIDUES AND WASTE FROM THE AIR POLLUTION CONTROL FACILITIES

All combustion residues, including bottom ash from the power boiler, and waste from the air control pollution control facilities, such as fly ash from the electrostatic precipitator of the power boiler, must be disposed of to a site and in a manner approved by the Director.

2.8 SOURCE SAMPLING FACILITIES

Sampling ports must be provided with nearby electrical and pneumatic outlets and, where required, approved access ladders and adequately sized platforms, for the discharges covered by Section 1 to enable Environmental Protection personnel to monitor these emissions.

2.9 NATURAL GAS EMERGENCY SYSTEMS TESTING

The Permittee may discharge natural gas once per year in conjunction with testing the mill's natural gas emergency shutdown system. Each annual discharge must be limited to fifteen minutes and the volume of natural gas discharged must not exceed 1 100 cubic metres. The Permittee must notify the Director, in a form and manner acceptable to the Director, at least 7 days prior to conducting the test.

2.10 WOOD RESIDUE BOILER

The Permittee must maximize the usage of acceptable quality low salt content wood residue in the wood residue boiler from land clearing operations and the like.

A combined maximum of 100 cubic metres per year of oil-laden hog fuel, spent oil-laden absorbent pads and activated charcoal, if generated within the mill site, may be incinerated in the wood residue boiler. The date, time, duration of combustion and maximum NO_x and Opacity readings shall be recorded each time any of these materials are incinerated and the report submitted to the

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Director in a form and manner acceptable to the Director. If the Permittee wishes to burn different materials, or materials in excess of 100 cubic metres per year, the approval of the Director must be requested and obtained in writing.

2.11 AMBIENT PARTICULATE AND TRS RESPONSE PLAN

The permittee shall maintain ambient Total Reduced Sulphur (TRS) and particulate matter response plans detailing measures to be taken, including how emissions will be reduced, to prevent unacceptable impacts on local air quality. Any changes to the plans shall be submitted to the Director, for review. The Permittee must maintain a log of each TRS and/or particulate alarm from the ambient monitoring stations and a description of the responses to each alarm. The log shall include a description of any complaints received by the company during the month.

2.12 FUTURE UPGRADING OF WORKS

The Director may require repair, alteration, removal, improvement or addition to works or construction of new or existing works, and submission of plans and specification for works specified in this authorization.

2.13 STANDARD CONDITIONS

For the administration of this Permit all gaseous volumes must be converted to standard conditions of 293.15 °K and 101.325 kPa with zero percent moisture.


2.14 TRANSFER OF AUTHORIZATION

A transfer of the Permit is without effect unless a Director has consented in writing to the transfer.

2.15 ODOUR CONTROL

Should objectionable odours, attributable to operations of the facilities, occur beyond the property boundary, measures or additional works will be required to reduce odour to acceptable levels.

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3 MONITORING AND REPORTING REQUIREMENTS

3.1 SAMPLING LOCATIONS AND TECHNIQUES

All sampling locations, techniques and equipment require the consent of the Director prior to use. Sampling and monitoring data, which also should include rate of discharge measurements, must be accompanied by process data relevant to the operation of the source of the emissions and to the performance of the pollution abatement equipment involved in the testing.

3.2 DISCHARGE MONITORING

Emission Source	Reference #	Parameter	Frequency
No. 19 wood residue boiler stack (S. 1.1)	E225337	Discharge rate	Semi-Annually
		Particulate matter*	Semi-Annually
		Nitrogen oxides (as NO ₂)	Continuous
		Opacity**	Continuous
		Dioxins & Furans	Annually
No. 18 standby boiler stack (S. 1.2)	EI01699	Discharge rate	***
		Sulphur dioxide (SO ₂)	***
		Nitrogen oxides (as NO ₂)	***
Sulphur burner (S. 1.3)	E208433	Discharge rate	Annually
		Sulphur dioxide (SO ₂)	Annually

* The particulate matter collected during emission testing must be analyzed for salt (NaCl) content.

** The continuous opacity monitor must also be used to continuously monitor the particulate emissions via the establishment and maintenance of opacity vs. particulate correlation.


*** As required by the Director.

3.3 OPERATING CONDITIONS - POWER BOILERS

The Permittee must endeavour to conduct sampling under "actual operating conditions" that are as close as reasonably practical to the 90th percentile operating rate based on the previous ninety days of operation. The minimum "actual operating conditions" for sampling purposes is the 50th percentile operating rate based on the previous 90 days of operation. The Permittee must document the actual operating conditions and report them to the Director, along with the 90th percentile and 50th percentile operating conditions, in a form and manner acceptable to the Director. The operating conditions to be reported must include the following:

- Wood Residue Boiler:
 - Steam generated from wood residue (kg/sec),
 - Total steam generated (kg/sec),
 - Firing rate of effluent treatment sludge (t/d) for the day of sampling.

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3.4 RECEIVING ENVIRONMENT MONITORING

3.4.1 Ambient Air and Meteorology

The Permittee must carry out an ambient air quality and meteorological monitoring program at points approved by the Director, including:

- a) Continuous measurement of particulate matter with an effective diameter of 2.5 µm or less (PM_{2.5}) and the results recorded in micrograms per cubic metre averaged over one hour periods;
- b) Continuous measurement of total reduced sulphur (TRS) as H₂S and oxides of nitrogen (NO_x) and the results recorded in parts per billion (by volume) averaged over one hour periods;
- c) Meteorological station(s) capable of continuously measuring wind speed, wind direction, relative humidity and temperature. One station must be located at the mill site.
- d) The types and data communication capabilities of instruments used in air and meteorological sampling must be consistent with the current ministry standards and approved by the Director; and
- e) Record the 24-hour average, annual average, and maximum daily 1-hour average values from the continuous monitors. Record the total time of those values that exceed the relevant criteria in hours, during each month.

The above ambient air quality and meteorological monitoring program, including sampling of parameters, frequency, instrument and data communication capabilities and locations, is specified and adjusted from time to time as directed by the Director in writing. Based on the results of monitoring, the permittee may be required to implement additional works.

3.4.2 Computer Dispersion Modelling Study

Dispersion modelling may be required at the discretion of the Director.

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3.5 MONITORING PROCEDURES

3.5.1 Air Quality Monitoring Station and Meteorological Monitoring Station

The permittee must maintain the monitoring stations and associated monitoring instrumentation in a manner acceptable to the Director, including timely preventative maintenance and repairs to minimize instrument down-time such that a minimum 75% data capture (1-hour averages) is achieved for each quarter of the calendar year.

3.5.2 Continuous Emissions Monitors (CEMs)

The Permittee must maintain the CEMs in a manner acceptable to the Director.

3.5.3 Discharges – Cyclones

Visual monitoring of the authorized works may be carried out by Ministry personnel as part of an ambient monitoring program for the entire mill operation. Based on these inspections and any other information available to the Director, the Permittee may be required to undertake source monitoring.

3.5.4 Analytical Procedures

Analyses are to be carried out in accordance with procedures described in the most recent edition of the "British Columbia Laboratory Methods Manual for the Analysis of Water, Wastewater, Sediment, Biological Materials and Discrete Ambient Air Samples", or by suitable alternative procedures as authorized by the Director.

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 Environmental Protection offices.

3.5.5 Source Testing Procedures

Sampling is to be carried out in accordance with the procedures described in the most recent edition of the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples" 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). A copy of the manual is also available for inspection at all Environmental Protection offices.

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3.6 REPORTING

The permittee must submit quarterly reports in a form and manner satisfactory to the Director. All reports must be submitted within 31 days of the end of the relevant reporting period.

The quarterly report for the previous quarter must include, but not be limited to the following:

- 3.6.1 Data of analyses, flow measurements and information relating to materials incinerated in #19 wood residue boiler. The data must also include calibration reports from the #19 wood residue boiler monitors.
- 3.6.2 Ambient TRS and particulate matter alarms log (section 2.11) along with the information related to air quality complaints received during the same period.
- 3.6.3 A comparison of ambient air monitoring data with ambient air quality objectives.
- 3.6.4 A comparison of ambient air monitoring data with previous data using graphs and tables and a discussion on whether the environmental impact is increasing or decreasing.
- 3.6.5 A summary of source and ambient monitoring instrument down-time, including reasons for data loss/instrument failure, repair chronology and steps taken to ensure future down-time is minimized
- 3.6.6 All occurrences of non-compliance with the requirements of this permit and/or applicable statutory requirements, all relevant results of sampling and analysis, explanation of the most probable cause(s) of the occurrences, and corresponding corrective and preventive actions taken and/or planned.

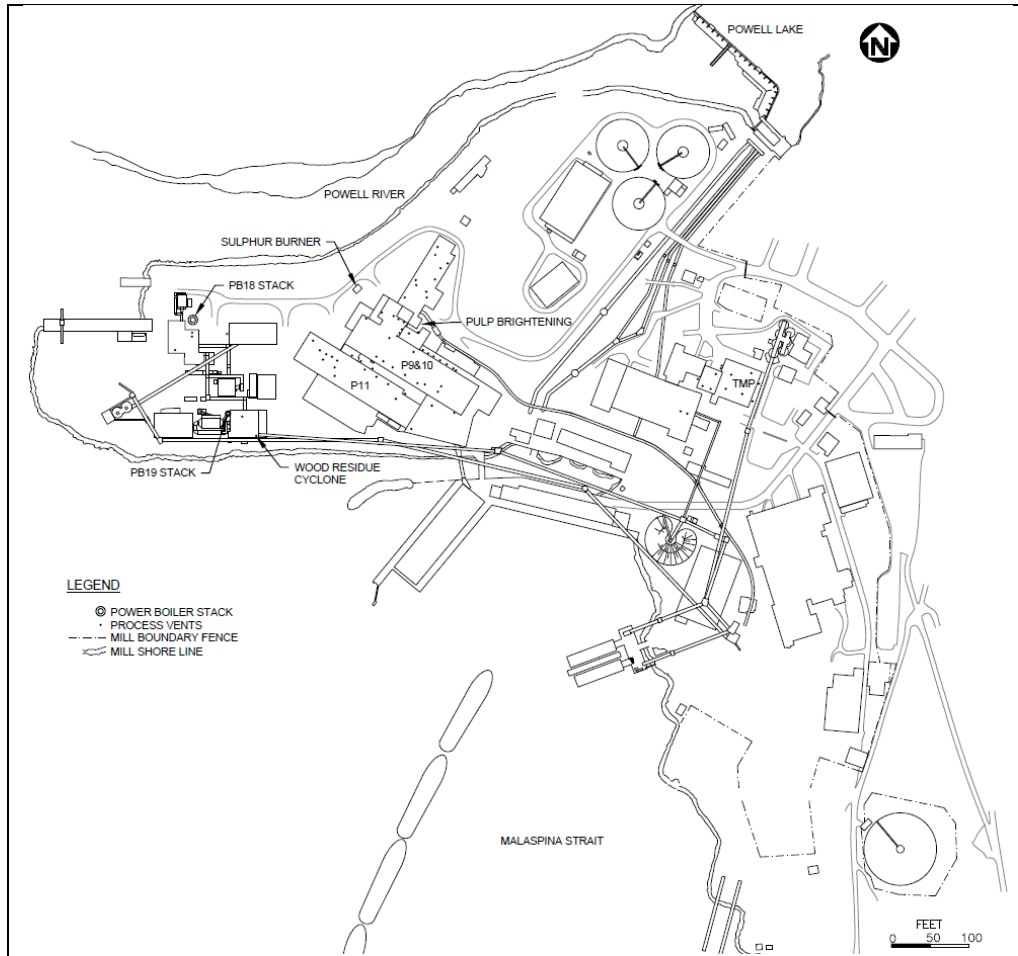
A copy of all reports submitted pursuant to the requirements of this permit must be available for members of the public, on file at the local library. These files are to be updated once each quarter. The Director may require more frequent submission of monitoring data.

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SITE PLAN A

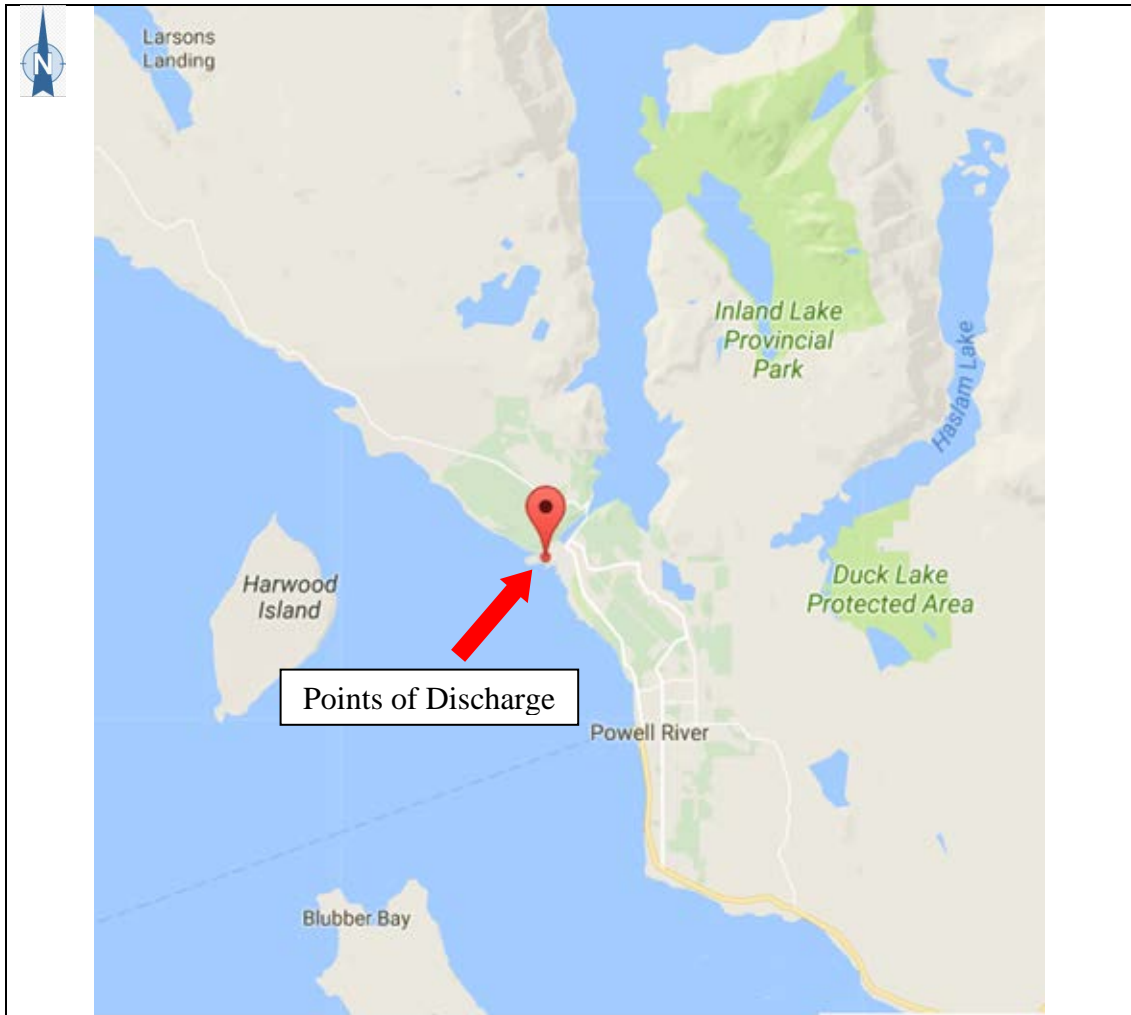


Section No.	Source	EMS
1.1	PB19 Stack	E225337
1.2	PB18 Stack	E101669
1.3	SULPHUR BURNER Stack	E208433
1.4	Mmiscellaneous Wood Residue Cyclones	E208510
1.5	Miscellaneous Stacks, Vents & Exhausts	E208511

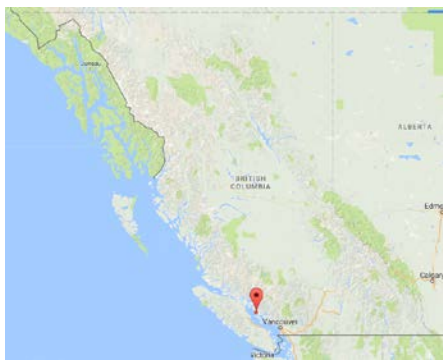
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LOCATION MAP




Scale: Not to scale



The facility where the points of discharge are authorized is approximately located at:
49.874615° N, 124.557152° W

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